06 119149

Industria y Comercio

SUPERINTENDENCIA

PCT

Delegatura de Propiedad Industrial
División de Nuevas Creaciones

SOLICITUD

PATENTE DE INVENCIÓN

21 EXPEDIENTE No 06-119149

54 TITULO "ANTICUERPOS ANTI IL 13 Y COMPLEJOS"

51 CLASIFICACIÓN INTERNACIONAL C07K 16/24, G06F 19/00

71 SOLICITANTE WYETH

DOMICILIO Nueva Jersey, Estados Unidos

74 APODERADO ALVARO CORREA ORDOÑEZ
T P No 20 281

22 BOGOTA, D C Noviembre 24, 2006

PETITORIO

Industria y Comercio
SUPERINTENDENCIA

Espaci

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
Rad: 06-119149- -00000-0000
Fec: 2006-11-24 16:01:36 Dep: 2020 MUECREACIONES
Tra: 11 PATENTEYII
Eva: 375 FASENACIONALI

FORMULARIO ÚNICO DE SOLICITUD DE PATENTE.
PCT
ENTRADA EN FASE NACIONAL 09-01-07

① SOLICITUD DE :

[X]	Patente de Invención	[ ]	Patente de Modelo de Utilidad
[X]	Capítulo I.	[ ]	Capítulo II.

② SOLICITANTE (71)

Nombre: WYETH

Dirección: 5 Giralda Farms, Madison, NJ 07940, Estados Unidos

Nacionalidad o Domicilio: Nueva Jersey, Estados Unidos

Lugar de Constitución: Delaware, Estados Unidos

Teléfono: Fax:

E-Mail

IDENTIFICACION

C.C. [ ] NIT [ ]

C.E. [ ] Otro [ ]

Cual

Número

③ REPRESENTANTE O APODERADO

Nombre: ALVARO CORREA ORDOÑEZ

Dirección: Avenida 82 No.10-62 Piso 8

Teléfono: 634 1500 Fax: 376 2211

E-Mail: office.bogota@bakernet.com

IDENTIFICACION

C.C. [X] NIT [ ]

C.E. [ ] Otro [ ]

Cual

Número 79.143.366 de Usaquén TP 20.261

④ INVENTOR (ES) (72)

Nombre: LIN, Laura Long; PARRIS; Kevin D.; TAM, Amy Sze Pui; TAN, Xiang-Yang; SHANE, Tania; DUMAS, John; WILHELM, James M. ; STAHL, Mark; MOSYAK, Lidia y HU, Zhidang

Dirección: 50 Golden Ball Road, Weston, MA 02493, Estados Unidos; 112 Woodbine Street, Auburndale, MA 02466, Estados Unidos; 29 Sturges Street, Medford, MA 02155, Estados Unidos;1811 Gazebo Circle, Reading, MA 01867, Estados Unidos; 332 Winchester Str., Newton, MA 02461, Estados Unidos; Estados Unidos; 447 Marlborough Street, Boston, MA 02115, Estados Unidos; 36 N. Hancock St., Lexington, MA 02420, Estados Unidos; 92 Littlefield Road, Newton, MA 02459, Estados Unidos; Ninguna, respectivamente.

Nacionalidad o Domicilio: Estadounidenses

⑤ PCT (85)

Solicitud Internacional No. PCT/US2005/020334 Fecha 09-JUN-05

Publicación Internacional No. WO2005/121177 Fecha 22-DIC-05

⑥ Título (54) ANTICUERPOS ANTI-IL-13 Y COMPLEJOS

⑦ Clasificación Internacional (51) C07K 16/24; G06F 19/00

⑧ Prioridad SI [X] NO [ ]

(33) País de Origen	(32) Fecha	(31) Número de Solicitud
US	09-JUN-04	60/578.736
US	09-JUN-04	60/578.473
US	22-JUN-04	60/581.375

⑨ Comprobante de pago No. 06-78525 **Fecha** 11-OCT-06

Instrucciones para el diligenciamiento del presente formulario, ver reverso de esta página

(10) **ANEXOS**

- [X] Comprobante de pago de la tasa de presentación de la solicitud
- [X] Documento que acredita la existencia y representación legal cuando el solicitante sea persona jurídica
- [X] Poderes, si fuere el caso
- [ ] Documento de cesión del inventor al solicitante o a su causante
- [ ] Declaraciones
- [X] Copia de la solicitud internacional. (Resumen, descripción, reivindicaciones, dibujos)
- [X] Traducción de la solicitud internacional al castellano. (Resumen, descripción, reivindicaciones, dibujos)
- [ ] Copia del examen preliminar internacional efectuado por la Autoridad Internacional de Examen preliminar (IPEA)
- [ ] Traducción del examen preliminar internacional efectuado por la IPEA
- [ ] De ser el caso, copia del contrato de acceso
- [ ] De ser el caso, documento que acredite la licencia o autorización de uso de conocimientos tradicionales de las comunidades indígenas
- [ ] De ser el caso, certificado de depósito del material biológico
- [ ] Arte final 12 x 12
- [ ] De ser el caso, información sobre otras solicitudes de patente o títulos obtenidos en el extranjero por el mismo titular o su causante, relacionadas parcial o totalmente con la invención de esta solicitud
- [ ] De ser el caso, modificaciones efectuadas a la solicitud internacional.
- [X] Otros: Extractos, Reporte de búsqueda y opinión escrita y presentación de documento de prioridad.

(11) **FIGURA CARATERISTICA**



(12) Solicito la concesión de la patente,

NOMBRE: ALVARO CORREA ORDOÑEZ

FIRMA: _____

C.C. 79.143.366 de Usaquén T.P. 20.281

Instrucciones para la presentación de los anexos, ver reverso de esta página

3

LD 023

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO

NIT : 800176089-2

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
Rad: 06-119149- -00000-0000
Fec: 2006-11-24 16:01:36 Dep: 2080 NUECREACIONES
Tra: 11 PATENTEYYI
Eve: 375 FABRICACIONAL

RECIBO OFICIAL DE CAJA : 06 - 78,525
FECHA : OCTUBRE 11 DE 2006

***** C O N S I G N A C I O N *****

SOLICITANTE	TIPO PAGO	BANCO	CUENTA	No. PAGO	FECHA PGO	Vr. PAGO
ORLANDO LINARES	CONSIGNACION	BANCO POPULAR	050-00110-6	55795232	11/10/2006	48,609,000.00

***** C O N C E P T O *****

CANT.	RENTISTICO	CONCEPTO	TOTAL CONCEPTO
1	50005-01-01 SOLICITUDES	1 TRAMITES DE SOL. DE PATENTE DE IN	463,000.00
		TOTAL : $	463,000.00

SON: CUATROCIENTOS SESENTA Y TRES MIL PESOS

RESPONSABLE : _____

RECIBO DE CAJA APLICADO AL EXPEDIENTE No._____

TRADUCCIÓN OFICIAL No. 467/06 de un documento escrito en inglés, el cual para su identificación se sella con el sello del Traductor. Esta es una Traducción Oficial efectuada el día 17 de noviembre de 2006 por la Sra. María Teresa Lara, c.c. 41.568.055 de Bogotá, Traductora Oficial según Resolución No. 01016 del 2 de octubre de 1998, expedida por el Ministerio de Justicia.

= = = =

CERTIFICADO

5. en Trenton, Nueva Jersey

6. el día 4 de octubre de 2006

7. por Bradley Abelow, TESORERO DE NUEVA JERSEY

8. No. A272528

9. Sello/Timbre: (Sello del Estado de Nueva Jersey)

10. Firma (Fdo.) Bradley Abelow

= = = =

6

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APOSTILLE

(CONVENTION DE LA HAYE DU 5 OCTOBRE 1961)

1. COUNTRY: UNITED STATES OF AMERICA

2. THIS PUBLIC DOCUMENT HAS BEEN SIGNED BY:
MICHELLE L MC GOWAN

3. ACTING IN THE CAPACITY OF:
NOTARY PUBLIC OF NEW JERSEY

4. BEARS THE SEAL/STAMP OF:
MICHELLE L MC GOWAN, NOTARY

CERTIFIED

5. AT TRENTON, NEW JERSEY

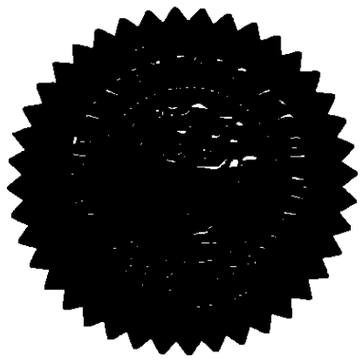
6. THE 4TH DAY OF OCTOBER 2006

7. BY: Bradley Abelow, NEW JERSEY TREASURER

8. NO. A272528

9. SEAL/STAMP:

10. SIGNATURE



Bradley Abelow

MARIA TERESA LIRA R.
TRADUCTORA OFICIAL
RESOLUCION Nº 67/04
DE MINJUSTICIA

AM101750 Colombia

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Fax: +57 1 376 2211
www.baker.net.com

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POWER OF ATTORNEY

The undersigned.

WYETH

with offices at

Five Giralda Farms, Madison, NJ 07940,
United States of America

declares that it hereby grants to

ALVARO CORREA-ORDOÑEZ and/or
OLGA GEORGETTE OTERO and/or
RICARDO METKE and/or
JUAN PABLO CONCHA

all members of the law firm Raisbeck, Lara, Rodriguez & Rueda, with domicile at Av. 82 No. 10 – 62, 6th floor, of Bogotá D. C., Colombia, and for so long as they remain members of the law firm, a full and sufficient power of attorney with respect to Colombian patent application(s) based on PCT/US2005/020334 and entitled "ANTI-IL-13 ANTIBODIES, CRYSTALS OF ANTI-IL-13 ANTIBODIES AND COMPLEXES COMPRISING THEM" and to obtain patent protection therefor, for which purpose I (we) authorize the said attorneys to represent me (us) before any authorities or persons, with or without jurisdiction, specially those administrative, administrative contentious and judicial, as well as before Arbitration Court, in all matters concerning the following: a) Obtainment of a patent(s) based upon said patent application(s), including filing of assignments, change of name or address, voluntary cancellation; and defending oppositions, cancellations, nullity, writ mandamus, and in general the civil, penal, an administrative processes relating to those rights.

I hereby ratify all lawful actions previously taken on behalf of this company by the aforementioned attorneys with respect to the mentioned matters.

Done and subscribed in

On the 29th day of September of 2006

WYETH

William H. Calnan; Assistant Secretary

PODER DE ABOGADO

La abajo firmada,

WYETH

con oficinas en

Five Giralda Farms, Madison, NJ 07940,
Estados Unidos de América

declara por el presente que otorga a

ALVARO CORREA-ORDOÑEZ y/o
OLGA GEORGETTE OTERO y/o
RICARDO METKE y/o
JUAN PABLO CONCHA

Todos miembros de la firma de abogados Rasibeck, Lara, Rodríguez & Rueda, con domicilio en la Av. 82 No. 10 – 62 Piso 6 en Bogotá D. C., Colombia, para tan largo como ellos se quedan miembros de dijo el bufete de abogados, poder especial amplio y suficiente con respecto a la solicitud(es) de patente en Colombia basada(s) en PCT/US2005/020334 y titulada "ANTI-IL-13 ANTIBODIES, CRYSTALS OF ANTI-IL-13 ANTIBODIES AND COMPLEXES COMPRISING THEM", y para obtener la protección de patente de la misma, a cuyo efecto autorizo (amos) a los dichos apoderados para que me (nos) representen ante cualesquiera autoridades o personas, ejerzan o no jurisdicción, especialmente ante las del orden administrativo, contencioso-administrativo y judicial, así como los tribunales de arbitramento, en todo lo concerniente a los siguientes asuntos: a) Obtención de la(s) patente(s) de invención basada(s) en la mencionada solicitud de patente, incluyendo presentación de traspasos, cambio de nombre o dirección, cancelación voluntaria; y defensa en oposiciones, cancelaciones, nulidades, la tutela, y en general procesos civiles, penales, administrativos relacionados con estos derechos.

Igualmente, ratifico todo lo actuado en derecho hasta el momento en nombre de esta compañía por cualquiera de los mencionados apoderados en los casos mencionados.

Dado y firmado en

A los 29 días del mes de septiembre de 2006

Firma de la persona que firma el Poder

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NOTARIAL CERTIFICATION

On this 29th day of September 2006, the undersigned Notary

CERTIFIES

1. That William H. Calnan of legal age and located at Five Giralda Farms, Madison, New Jersey 07940 U.S.A. set his hand on the foregoing document.

2. That the grantor is to me personally known and that he/she has legal capacity to execute the instrument.

3. That the grantor has executed the foregoing document as *Assistant Secretary* of the judicial person WYETH

4. That the judicial person WYETH having its home office in Five Giralda Farms, Madison, NJ 07940, United States of America is duly organized, has present legal existence and that the purposes for which the power of attorney is granted are within the scope of its corporate purposes.

5. That the grantor has in fact the referred to authority and that his/her representation is legal.

6. That I have based certifications 3, 4 and 5 above on the following authentic documents for such purpose exhibited to me and which I mention specifically, giving their dates and their origin or source:
Minutes from the Board of Director's Meeting held on April 27, 2006.

Notary Public
MICHELLE L. McGOWAN
Notary Public, State of New Jersey
No. 2108903
Qualified in Morris County
Commission Expires Feb. 9, 2011

CERTIFICACION NOTARIAL

A los 29 días del mes de septiembre de 2006, el suscrito Notario

DA FE

1 Que William H. Calnan mayor y domiciliado en Five Giralda Farms, Madison, New Jersey 07940 Estados Unidos de América suscribió de su puño y letra el documento que antecede.

2. Que conozco al otorgante y que éste tiene capacidad legal para el otorgamiento.

3 Que el otorgante ha suscrito el referido documento en su carácter de Subsecretario de la persona jurídica WYETH

4 Que la persona jurídica WYETH con sede en Five Giralda Farms, Madison, NJ 07940, Estados Unidos de América está legalmente constituida, que tiene existencia legal actual y que el acto para el cual se otorga el poder está comprendido entre los que constituyen su objeto social.

5 Que el otorgante tiene efectivamente la representación que ostenta y que ésta es legítima.

6. Que he basado las certificaciones 3, 4 y 5 anteriores en los siguientes documentos auténticos que al efecto se me exhibieron y que menciono específicamente con expresión de sus fechas y de su origen o procedencia:
Actas de la reunión de Junta Directiva celebrada el 27 de abril de 2006

El Notario Público

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
22 December 2005 (22.12.2005)

PCT

(10) International Publication Number
WO 2005/121177 A3

(51) International Patent Classification:
C07K 16/24 (2006.01) *G06F 19/00* (2006.01)

(21) International Application Number:
PCT/US2005/020334

(22) International Filing Date: 9 June 2005 (09.06.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:

60/578,736	9 June 2004 (09.06.2004)	US
60/578,473	9 June 2004 (09.06.2004)	US
60/581,375	22 June 2004 (22.06.2004)	US

(71) Applicant *(for all designated States except US)*: WYETH [US/US]; 5 Giralda Farms, Madison, NJ 07940 (US).

(72) Inventors; and

(75) Inventors/Applicants *(for US only)*: LIN, Laura, Long [US/US]; 50 Golden Ball Road, Weston, MA 02493 (US). PARRIS, Kevin, D. [US/US]; 112 Woodbine Street, Auburndale, MA 02466 (US). TAM, Amy, Sze, Pui [US/US]; 29 Sturges Street, Medford, MA 02155 (US). TAN, Xiang-Yang [US/US]; 811 Gazebo Circle, Reading, MA 01867 (US). SHANE, Tania [US/US]; 332 Winchester Str., Newton, MA 02461 (US). DUMAS, John (US). WILHELM, James, M. [US/US]; 447 Marlborough Street, Boston, MA 02115 (US). STAHL, Mark [US/US]; 36 N. Hancock St., Lexington, MA 02420 (US). MOSYAK, Lidia [US/US]; 92 Littlefield Road, Newton, MA 02459 (US). HU, Zhiziang.

(74) Agents: DALEY, Sean, P. et al.; Fish & Richardson P.C., 225 Franklin Street, Boston, MA 02110-2804 (US).

(81) Designated States *(unless otherwise indicated, for every kind of national protection available)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States *(unless otherwise indicated, for every kind of regional protection available)*: ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

(88) Date of publication of the international search report:
22 June 2006

[Continued on next page]

(54) Title: ANTI-IL-13 ANTIBODIES, CRYSTALS OF ANTI-IL-13 ANTIBODIES AND COMPLEXES COMPRISING THEM



(57) Abstract: Anti-IL-13 antibodies, crystals of anti-IL-13 antibodies, IL-13 polypeptide/anti-IL-13 antibody complexes, crystals of IL-13 polypeptide/anti-IL-13 antibody complexes, IL-13Rα1 polypeptide/IL-13 polypeptide/anti-IL-13 antibody complexes, crystals of IL-13Rα1 polypeptide/IL-13 polypeptide/anti-IL-13 antibody complexes, and related methods and software systems are disclosed.

WO 2005/121177 A3

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
7 March 2002 (07.03.2002)

PCT

(10) International Publication Number
WO 02/18445 A2

(51) International Patent Classification[7]: C07K 16/00

(21) International Application Number: PCT/US01/27352

(22) International Filing Date: 13 August 2001 (13.08.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/229,933 1 September 2000 (01.09.2000) US
60/276,452 16 March 2001 (16.03.2001) US

(71) Applicant *(for all designated States except US)*: BIOGEN, INC. [US/US]; 14 Cambridge Center, Cambridge, MA 02142 (US).

(72) Inventors; and
(75) Inventors/Applicants *(for US only)*: KARPUSAS, Michael [GR/US]; 175 Poplar Street, Roslindale, MA 02131 (US). HSU, Yen-Ming [—/US]; 3 Douglas Road, Lexington, MA 02420 (US). TAYLOR, Frederick, R. [US/US]; 98 Gulliver Street, Milton, MA 02186 (US). ZHENG, Zhengli [US/US]; 640 Marrett Road, Lexington, MA 02421 (US).

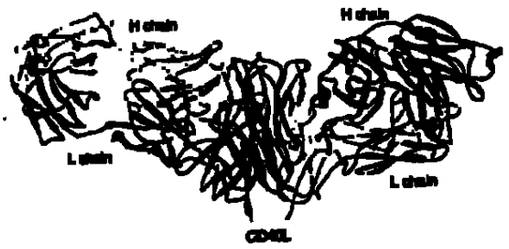
(74) Agents: HALEY, James, F., Jr. et al.; c/o Fish & Neave, 1251 Avenue of the Americas, New York, NY 10020 (US).

(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

[Continued on next page]

(54) Title: CO-CRYSTAL STRUCTURE OF MONOCLONAL ANTIBODY 5C8 AND CD154, AND USE THEREOF IN DRUG DESIGN



(57) Abstract: The present invention relates to compositions and crystals of CD154 (CD40L) in complex with an anti-CD154 antibody. In addition, this invention relates to the high resolution structure of a CD154/anti-CD154 antibody complex as obtained by X-ray crystallography. Specifically, this structure provides binding sites defined by the structure coordinates determined herein. This invention also relates to a computer (machine) comprising a machine-readable data storage medium comprising a data storage material encoded with machine-readable data comprising the structure coordinates provided by this invention. The computer has instructions to process said machine-readable data into a three-dimensional representation of a molecular complex of CD154/anti-CD154 antibody based on the structure coordinates provided by this invention. This invention also relates to methods using the structure coordinates of an CD154/anti-CD154 antibody complex to solve the structure of similar or homologous molecular complexes, as well as methods using the structure coordinates of an CD154/anti-CD154 antibody complex to design chemical entities or compounds, including agonists or antagonists of CD154, that specifically bind CD154 and function as CD40:CD154 binding interrupters, as well as to design variants of monoclonal antibody 5c8, or humanized monoclonal antibody 5c8, or antigen binding fragments thereof, having improved properties (such as increased or decreased binding affinity for CD154). This invention also relates to compositions comprising said chemical entities, compounds or variants of monoclonal antibody 5c8 or humanized monoclonal antibody 5c8. The invention further relates to uses of said chemical entities, compounds or variants of monoclonal antibody 5c8 or humanized monoclonal antibody 5c8 to treat a subject having one or more conditions associated with inappropriate or abnormal CD154 induced activation.

WO 02/18445 A2

Declarations under Rule 4.17:

— *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

— *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

Published:

— *without international search report and to be republished upon receipt of that report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau

(43) International Publication Date
19 December 2002 (19.12.2002)

PCT

(10) International Publication Number
WO 02/101629 A1

(51) International Patent Classification[7]: G06F 19/00

(21) International Application Number: PCT/US02/15561

(22) International Filing Date: 16 May 2002 (16.05.2002)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
60/296,607 7 June 2001 (07.06.2001) US

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(81) Designated States *(national)*: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VN, YU, ZA, ZM, ZW.

(84) Designated States *(regional)*: ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:
— *with international search report*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

WO 02/101629 A1

(54) Title: SOLUTION STRUCTURE OF IL-13 AND USES THEREOF

(57) Abstract: The present invention relates to the three dimensional solution structure of interleukin-13 (IL-13), as well as the identification and characterization of various binding active sites of IL-13. Also provided for by the present invention are methods of utilizing the three dimensional structure for the design and selection of potent and selective agents that interact with IL-13.

US 20020136719A1

(19) United States

(12) Patent Application Publication (10) Pub. No.: US 2002/0136719 A1

Shenoy et al. (43) Pub. Date: Sep. 26, 2002

(54) CRYSTALS OF WHOLE ANTIBODIES AND FRAGMENTS THEREOF AND METHODS FOR MAKING AND USING THEM

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(21) Appl. No.: 10/034,990

(22) Filed: Dec. 26, 2001

Related U.S. Application Data

(60) Provisional application No. 60/258,704, filed on Dec. 28, 2000.

Publication Classification

(51) Int. Cl.[7] A61K 39/395; C07K 16/00

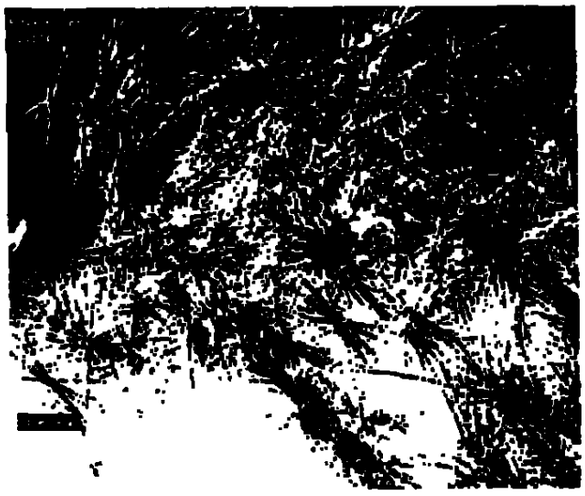
(52) U.S. Cl. 424/130.1; 530/388.1

(57) ABSTRACT

This invention relates to crystals of whole antibodies and fragments thereof, and formulations and compositions comprising such crystals. More particularly, methods are provided for the crystallization of high concentrations of whole antibodies, and fragments thereof, in large batches, and for the preparation of stabilized whole antibody crystals for use alone, or in dry or slurry formulations or compositions. This invention also relates to methods for stabilization, storage and delivery of biologically active whole antibody crystals.

The present invention further relates to methods using whole antibody crystals, antibody fragment crystals, or compositions or formulations comprising such crystals for biomedical applications, including biological delivery to humans and animals. More particularly, whole antibody crystals or antibody fragment crystals, or crystal compositions or formulations thereof, are used as a carrier-free delivery system which can slowly release active whole antibodies or fragments thereof, to a subject, where and when they are needed.

Rituximab Crystals



ANTI-IL-13 ANTIBODIES AND COMPLEXES

RELATED APPLICATIONS

This application claims the benefit of U.S. Provisional Application Number 60/578,736, filed June 9, 2004, U.S. Provisional Patent Application No. 60/578,473, filed June 9, 2004, and U.S. Provisional Patent Application No. 60/581,375 filed June 22, 2004. The contents of each of these applications are incorporated herein by reference in their entirety.

TECHNICAL FIELD

The invention relates to anti-IL-13 antibodies, crystals of anti-IL-13 antibodies, IL-13 polypeptide/anti-IL-13 antibody complexes, crystals of IL-13 polypeptide/anti-IL-13 antibody complexes, IL-13Rα1 polypeptide/IL-13 polypeptide/anti-IL-13 antibody complexes, crystals of IL-13Rα1 polypeptide/IL-13 polypeptide/anti-IL-13 antibody complexes, and related methods and software systems.

BACKGROUND

Interleukin-13 (IL-13) is a pleiotropic cytokine involved in immune response conditions, such as atopy, asthma, allergy, and inflammatory response. The role of IL-13 in immune response is facilitated by its effect on cell-signaling pathways. For example, IL-13 can promote B cell proliferation, induce B cells to produce IgE, and down regulate the production of proinflammatory cytokines. IL-13 can also increase expression of VCAM-1 on endothelial cells, and enhance expression of class II MHC antigens and various adhesion molecules on monocytes.

IL-13 function is mediated through an interaction with its receptor on hematopoietic and other cell types. The human IL-13 receptor (IL-13R) is a heterodimer that includes the interleukin-4 receptor α chain, IL-4Rα, and the IL-13 binding chain, IL-13Rα1. The association of IL-13 with its receptor induces the activation of STAT6 (signal transducer and activation of transcription 6) and JAK1 (Janus-family kinase) through a binding interaction with the IL-4Rα chain. IL-13Rα2, which may be found on the cell surface or in soluble form in the circulation,

binds to IL-13 with high affinity but does not mediate cellular responses to IL-13. It is thought to function as a decoy receptor.

SUMMARY

In one aspect, the invention features a crystalline antibody. The crystalline antibody is an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

In another aspect, the invention features a crystalline composition that includes an antibody. The antibody is an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

In a further aspect, the invention features a crystalline complex that includes an IL-13 polypeptide and an antibody. The antibody is an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

In another aspect, the invention features a crystalline complex that includes an IL-13Rα1 polypeptide and an IL-13 polypeptide.

In yet another aspect, the invention features a method that includes using a three-dimensional model of an antibody to design an agent that interacts with an IL-13 polypeptide. The antibody is an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

In another aspect, the invention features a method that includes using a three-dimensional model of an IL-13 polypeptide to design an agent that interacts with the IL-13 polypeptide.

In another aspect, the invention features a method that includes using a three-dimensional model of an IL-13 polypeptide bound to an IL-13Rα1 polypeptide to design an agent that interacts with the IL-13 polypeptide.

In another aspect, the invention features a method that includes selecting an agent by performing rational drug design with a three-dimensional structure of a crystalline complex that includes an IL-13 polypeptide; contacting the agent with an IL-13 polypeptide; and detecting the ability of the agent to bind the IL-13 polypeptide.

In a further aspect, the invention features a method that includes contacting an IL-13 polypeptide with an antibody to form a composition; and crystallizing the composition to form a crystalline complex in which the antibody is bound to the IL-13 polypeptide. The antibody is an anti-IL-13 antibody or a Fab fragment of an anti-IL-

13 antibody, and the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

In another aspect, the invention features a method that includes contacting an IL-13 polypeptide with an antibody and an IL-13Rα1 polypeptide to form a composition, and crystallizing the composition to form a crystalline complex in which the antibody and the IL-13Rα1 polypeptide are each bound to the IL-13 polypeptide. The antibody is an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody, and the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

In another aspect, the invention features a software system that includes instructions for causing a computer system to accept information relating to a structure of an IL-13 polypeptide bound to an antibody, the antibody including an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody. The instructions also cause the computer system to accept information relating to a candidate agent and to determine binding characteristics of the candidate agent to the IL-13 polypeptide. The determination of binding characteristics is based on the information relating to the structure of the IL-13 polypeptide and the information relating to the candidate agent.

In another aspect, the invention features a computer program residing on a computer readable medium. A plurality of instructions is stored on the computer readable medium. When the instructions are executed by one or more processors, the one or more processors will accept information relating to a structure of an IL-13 polypeptide bound to an antibody, the antibody being an anti-IL-13 polypeptide or a Fab fragment of an anti-IL-13 antibody; accept information relating to a candidate agent; and determine binding characteristics of the candidate agent to the IL-13 polypeptide. Determination of the binding characteristics is based on the information relating to the structure of the IL-13 polypeptide and the information relating to the candidate agent.

In another aspect, the invention features a method that includes accepting information relating to the structure of an IL-13 polypeptide bound to an antibody and modeling the binding characteristics of the IL-13 polypeptide with a candidate agent. The antibody is an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody. The method of accepting information and modeling the binding characteristics is implemented by a software system.

In another aspect, the invention features a computer program residing on a computer readable medium containing a plurality of instructions. When the instructions are executed by one or more processors, the one or more processors will accept information relating to the structure of an IL-13 polypeptide bound to an antibody, the antibody being an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody; and model the binding characteristics of the IL-13 polypeptide with a candidate agent.

In another aspect, the invention features a software system, that includes instructions for causing a computer system to accept information relating to the structure of an IL-13 polypeptide bound to an antibody, and model the binding characteristics of the IL-13 polypeptide with a candidate agent. The antibody is an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

In another aspect, the invention features a crystalline antibody. The antibody is capable of binding to a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

In a further aspect, the invention features a crystalline composition that includes an antibody capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

In another aspect, the invention features a crystalline complex that includes an IL-13 polypeptide and an antibody. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

In yet another aspect, the invention features a crystalline complex that includes an IL-13 polypeptide, an IL-13Rα1 polypeptide, and an antibody. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

In another aspect, the invention features a method that includes using a three-dimensional model of an antibody to design an agent that interacts with an IL-13 polypeptide. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

In another aspect, the invention features a method that includes contacting an IL-13 polypeptide with an antibody to form a composition; and crystallizing the composition to form a crystalline complex in which the antibody is bound to the IL-13 polypeptide. The antibody is capable of binding a site of an IL-13 polypeptide to

which an IL-4R polypeptide binds *in vivo*, and the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

In yet another aspect, the invention features a method that includes contacting an IL-13 polypeptide with an antibody and an IL-13Rα1 polypeptide to form a composition, and crystallizing the composition to form a crystalline complex in which the antibody and the IL-13Rα1 polypeptide are each bound to the IL-13 polypeptide. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*, and the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

In another aspect, the invention features a software system that includes instructions for causing a computer system to accept information relating to a structure of an IL-13 polypeptide bound to an antibody, accept information relating to a candidate agent, and determine binding characteristics of the candidate agent to the IL-13 polypeptide. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds in vivo. The determination of binding characteristics of the candidate agent is based on the information relating to the structure of the IL-13 polypeptide and the information relating to the candidate agent.

In another aspect, the invention features a computer program residing on a computer readable medium containing a plurality of instructions. When the instructions are executed by one or more processors, the one or more processors will accept information relating to a structure of an IL-13 polypeptide bound to an antibody, accept information relating to a candidate agent; and determine the binding characteristics of the candidate agent to the IL-13 polypeptide. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*. Determination of the binding characteristics of the candidate agent is based on the information relating to the structure of the IL-13 polypeptide and the information relating to the candidate agent

In another aspect, the invention features a method that includes accepting information relating to the structure of an IL-13 polypeptide bound to an antibody and modeling the binding characteristics of the IL-13 polypeptide with a candidate agent. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*. The method of accepting information and modeling the binding characteristics is implemented by a software system.

In another aspect, the invention features a computer program residing on a computer readable medium containing a plurality of instructions. When the instructions are executed by one or more processors, the one or more processors will accept information relating to the structure of an IL-13 polypeptide bound to an antibody and model the binding characteristics of the IL-13 polypeptide with a candidate agent. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

In another aspect, the invention features a software system that includes instructions for causing a computer system to accept information relating to the structure of an IL-13 polypeptide bound to an antibody and model the binding characteristics of the IL-13 polypeptide with a candidate agent. The antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

In another aspect, the invention features a method of modulating IL-13 activity in a subject. The method includes using rational drug design to select an agent that is capable of modulating IL-13 activity, and administering a therapeutically effective amount of the agent to the subject.

In a further aspect, the invention features a method of treating a subject having a condition associated with IL-13 activity. The method includes using rational drug design to select an agent that is capable of effecting IL-13 activity, and administering a therapeutically effective amount of the agent to the subject.

In another aspect, the invention features a method of prophylactically treating a subject susceptible to a condition associated with IL-13 activity. The method includes determining that the subject is susceptible to the condition associated with IL-13 activity, using rational drug design to select an agent that is capable of effecting IL-13 activity, and administering a therapeutically effective amount of the agent to the subject.

Structural information of a polypeptide or a corresponding ligand can lead to a greater understanding of how the polypeptide functions *in vivo*. For example, knowledge of the structure of a protein or a corresponding ligand can reveal properties that facilitate the interaction of the protein with its ligands, including other proteins, antibodies, effector molecules (*e.g.*, hormones), and nucleic acids. Structure based modeling can be used to identify ligands capable of interacting with an IL-13

polypeptide, thus eliminating the need for screening assays, which can be expensive and time-consuming. Structural information can also be used to direct the modification of a ligand known to interact with IL-13 to generate an alternative ligand with more desirable properties, such as tighter binding or greater specificity.

The study of the interaction between an anti-IL-13 antibody and an IL-13 polypeptide and between an IL-13 polypeptide and its receptor can facilitate the design or selection of ligands (*e.g.*, drugs) for modulating the activity of IL-13 *in vivo*. Such studies can therefore be useful for designing therapeutic agents. Activity assays indicated that mAb13.2 blocked IL-13 function *in vitro* and *in vivo* (see Examples 1 and 2 below), including the use of an antibody to identify IL-13-binding agents capable of disturbing the normal function of the protein. Accordingly, it is believed that the crystal structures of the mAb13.2Fab fragment, the human IL-13/mAb13.2 Fab fragment complex, and the human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex (see Tables 10-12 below) can be useful for designing or identifying agents that can interact with IL-13 and the IL-13 receptor polypeptide, IL-13Rα1. Such agents may be useful in modulating the activity of IL-13 in immune response conditions, such as, for example, asthma (*e.g.*, nonallergic asthma, or allergic asthma, which is sometimes referred to as chronic allergic airway disease), chronic obstructive pulmonary disorder (COPD), airway inflammation, eosinophilia, fibrosis and excess mucus production (*e.g.*, cystic fibrosis, pulmonary fibrosis, and allergic rhinitis), inflammatory and/or autoimmune conditions of the skin (*e.g.*, atopic dermatitis), inflammatory and/or autoimmune conditions of the gastrointestinal organs (*e.g.*, inflammatory bowel disease (IBD) and/or Crohn's disease), liver (*e.g.*, cirrhosis), inflammatory and/or autoimmune conditions of the blood vessels or connective tissue (*e.g.*, scleroderma), and tumors or cancers (*e.g.*, soft tissue or solid tumors), such as Hodgkin's lymphoma, glioblastoma, and lymphoma.

Other features and advantages of the invention will be apparent from the accompanying drawings and description, and from the claims. The contents of all references, pending patent applications and published patents, cited throughout this application are hereby expressly incorporated by reference. In case of conflict, the present application, including definitions, will control.

DESCRIPTION OF DRAWINGS

FIG. 1A is the amino acid sequence of the light chain of the mAb13.2 Fab (fragment antigen binding) fragment (SEQ ID NO:1).

FIG. 1B is the amino acid sequence of the heavy chain of mAb13.2 Fab fragment (SEQ ID NO:2).

FIG. 2A is the amino acid sequence of full-length human IL-13 (Swiss-Prot Accession No. P35225) (SEQ ID NO:3). The signal peptide cleavage site is indicated by a slash. Alpha helices A, B, C, and D are underlined. Helix A is defined by amino acids 25-42; helix B is defined by amino acids 62-71; helix C is defined by amino acids 78-89; and helix D is defined by amino acids 112-127.

FIG. 2B is the amino acid sequence of human IL-13 (SEQ ID NO:4) following cleavage of the signal peptide. Alpha helices A, B, C, and D are underlined. Helix A is defined by amino acids 6-23; helix B is defined by amino acids 43-52; helix C is defined by amino acids 59-70; helix D is defined by amino acids 93-108.

FIG. 3 is a ribbon diagram illustrating the crystal structure of mAb13.2 Fab fragment (left) with the processed form of human IL-13 (right) (see FIG. 2B). The light chain of mAb13.2 Fab fragment is shown in dark shading, and the heavy chain in light shading. Helices A, B, C, and D of the IL-13 structure are indicated.

FIG. 4 is a graph illustrating the kinetic parameters of three different anti-IL-13 antibodies (mAb13.2, mAb13.4, and mAb13.9) binding to human IL-13 as determined by Biacore analyses. Kinetic constants for mAb13.2 are also shown.

FIG. 5 is a graph illustrating the binding of biotinylated mAb13.2 to recombinant and native human IL-13. ELISA plates were coated with anti-FLAG M2 antibody. The binding of FLAG-human IL-13 was detected with biotinylated mAb13.2 and streptavidin-peroxidase. This binding could be competed with native human IL-13 isolated from mitogen activated, Th2-skewed, cord blood mononuclear cells (triangles); and recombinant human IL-13 (diamonds). There was no detectable binding of recombinant murine IL-13 (circles) to mAb13.2.

FIG. 6 is a graph illustrating the effect of mAb13.2 and the known inhibitor rhuIL-13Rα2 on the bioactivity of human IL-13. "cpm" is the measure of ^{3}H-thymidine taken up into TF1 cells grown in the presence of IL-13 and varying concentrations of mAb13.2 or rhuIL-13Rα2 (x-axis).

FIG. 7A is a graph illustrating the effect of recombinant human IL-13 and IL-4 on CD23 expression on CD11b+ monocytes. The monocytes were normal peripheral blood mononuclear cells (PBMCs) harvested from a healthy donor. The cells were treated overnight with 1 ng/mL recombinant human IL-13 or IL-4, then assayed for CD23 expression by flow cytometry.

FIG. 7B is a graph illustrating the effect of mAb13.2 on IL-13-induced CD23 expression on CD11b+ monocytes.

FIG. 7C is a graph illustrating the effect of mAb13.2 on IL-4 - induced CD23 expression on CD11b+ monocytes.

FIG. 8 is a graph illustrating the effect of mAb13.2 on IL-13-dependent IgE production by human B cells. PBMC from a healthy donor were stimulated with PHA and IL-13. After 3 weeks, each well was assayed for IgE concentrations by ELISA. PHA + IL-13 increased the frequency of IgE-producing B cell clones. This effect was inhibited by mAb13.2, but not by an IL-13 specific nonneutralizing antibody (mAb13.8) or by control mouse IgG (msIgG).

FIG. 9A is a Western blot detecting phosphorylated STAT6 protein from HT-29 human epithelial cells treated with the indicated concentration of IL-13 for 30 min at 37°C.

FIG. 9B is a histogram from flow cytometry experiments that measured the level of cellular phosphorylated STAT6 protein following treatment with IL-13. The shift in phospho-STAT6 staining intensity upon treatment with IL-13 is indicated by the lightly shaded trace.

FIG. 9C is a panel of histograms from flow cytometry experiments that measured the level of cellular phosphorylated STAT6 protein following treatment with a sub-optimal concentration of human IL-13 and the indicated antibody. Cells treated with IL-13 and antibody are indicated by the bold trace. Shaded histograms indicate untreated cells. In addition to mAb13.2, an IL-13 specific nonneutralizing antibody (mAb13.8) and a control mouse IgG1 were also tested.

FIG. 10 is a graph demonstrating the percentage of eosinophils detected in BAL from Cynomolgus monkeys sensitized to *Ascaris suum* following lung segmental challenge with *Ascaris* antigen. Twenty-four hours before challenge, animals had been administered mAb13.2 i.v. (diamonds) or left untreated (circles). Triangles represent mAb13-2-treated and re-challenged with Ascaris at three months

post-Ab administration. Eosinophils were detected by flow cytometry using depolarized side scatter analysis.

FIG. 11A is a graph showing that unlabeled mAb13.2 (diamonds) or mAb13.2 Fab fragments (circles) could compete for binding with biotinylated mAb13.2 in an ELISA assay. An "irrelevant antibody" (monoclonal antibody mAb13.8, which binds IL-13 but does not neutralize its activity) (asterisks) could not compete for binding. Competitor concentration is expressed as picomole (pM) antibody or Fab.

FIG. 11B is a graph showing that unlabeled mAb13.2 (diamonds) or mAb13.2 Fab fragment (circles) could compete for binding with biotinylated mAb13.2 in an ELISA assay. An "irrelevant antibody" (monoclonal antibody mAb13.8) (asterisks) could not compete for binding. Competitor concentration is expressed as picomole (pM) binding sites, assuming two binding sites per intact IgG and one binding site per Fab fragment.

FIG. 12A is a graph showing that mAb13.2 (diamonds) and mAb13.2 Fab fragment (circles) inhibited IL-13-dependent TF1 cell division. "Competitor concentration" is mAb13.2 and mAb13.2 Fab fragment concentration, and concentration is represented as pM competitor binding sites, assuming two binding sites per intact IgG and one binding site per Fab fragment.

FIG. 12B is a graph showing that mAb13.2 (diamonds) and mAb13.2 Fab fragment (circles) inhibited IL-13 CD23 expression on human PBMCs. Competitor concentration is mAb13.2 and mAb13.2 Fab fragment concentration, and the concentration is represented as pM competitor binding sites, assuming two binding sites per intact IgG and one binding site per Fab fragment.

FIG. 13 is the DNA sequence of the expression vector pAL-981 (SEQ ID NO:5), including a human IL-13 cDNA insert (hIL13coli). The cDNA sequence encoding IL-13 is underlined. Restriction sites NdeI (nucleotide position 2722) and XbaI (nucleotide position 3070) flank the cDNA sequence.

FIG. 14 is the amino acid sequence of human IL-13Rα1 (Swiss-Prot Accession No. P78552) (SEQ ID NO:12).

FIG. 15 is a ribbon diagram illustrating the structure of the mAb13.2 Fab/IL-13/IL-13Rα1 trimeric complex.

FIG. 16 is a ribbon diagram illustrating the interaction between IL-13 and Ig domain 1 of IL-13Rα1.

FIG. 17 is a ribbon diagram illustrating the interaction between IL-13 and Ig domain 3 of IL-13Rα1.

DETAILED DESCRIPTION

The structure of the antigen binding fragment (Fab) of a murine monoclonal anti-IL-13 antibody, mAb13.2, was discovered by X-ray crystallography (see Table 10 below). The crystal structures of human IL-13 complexed with the mAb13.2 Fab fragment, and of human IL-13 complexed with both the mAb13.2 Fab fragment and an IL-13Rα1 polypeptide fragment were also discovered by X-ray crystallography (See Tables 11 and 12 below, respectively).

FIGs. 1A and 1B provide amino acid sequence information for the light and heavy chain polypeptides of the mAb13.2 Fab fragment. FIGs. 2A and 2B provide amino acid sequence information for human IL-13. FIG. 3 provides structural information for a crystal of a human IL-13/mAb13.2 Fab fragment complex. The mAb13.2 Fab fragment binds to the IL-4R (IL-4Rα) binding domain of human IL-13, which includes the amino acids Ser7, Thr8, Ala9, Glu12, Leu48, Glu49, Ile52, Asn53, Arg65, Met66, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74, and Arg86 as defined by SEQ ID NO:4.

FIG. 14 provides amino acid sequence information for the human IL-13 receptor polypeptide, human IL-13Rα1. FIGs. 15, 16, and 17 provide structural information for a crystal of a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex. In addition to the interaction described above between human IL-13 and the mAb13.2 Fab fragment, human IL-13 forms two contacts with the human IL-13Rα1 polypeptide, one with Ig domain 1 of the human IL-13Rα1 polypeptide, and a second with the Ig domain 3 of the human IL-13Rα1 polypeptide. The interaction with Ig domain 1 involves residues Thr88, Lys89, Ile90, and Glu91 of human IL-13 as defined by SEQ ID NO:4, and residues Lys76, Lys77, Ile78, and Ala79 of the human IL-13Rα1 polypeptide, as defined by SEQ ID NO:12 (see FIG. 16). The interaction with Ig domain 3 involves residues Arg11, Glu12, Leu13, Ile14, Glu15, Lys104, Lys105, Leu106, Phe107, and Arg108 of human IL-13 as defined by SEQ ID NO:4, and residues Ile254, Ser255, Arg256, Lys318, Cys320, and Tyr321 of the human IL-13Rα1 polypeptide as defined by SEQ ID NO:12 (see FIG. 17).

In general, a crystal of the mAb13.2 Fab fragment can be prepared as desired. Typically, the process includes first isolating the mAb13.2 Fab fragment, and then

forming a crystal that contains that mAb13.2 Fab fragment. In some embodiments, a crystal containing the mAb13.2 Fab fragment can be prepared as follows. The intact antibody is cleaved with an appropriate proteolytic enzyme (*e.g.*, papain), and the mAb13.2 Fab fragment is isolated from the Fc (Fragment crystallizable) fragment. The isolated mAb13.2 Fab fragment is disposed in an appropriate solution, and the solution is crystallized. The solution can contain, for example, one or more polymers (*e.g.*, polyethylene glycol (PEG)), one or more salts (*e.g.*, potassium sulfate) and optionally one or more organic solvents. The crystals can be grown by various methods, such as, for example, sitting or hanging drop vapor diffusion. In general, crystallization can be performed at a temperature of from about 4°C to 60°C (*e.g.*, from about 4°C to about 45°C, such as at about 4°C, about 15°C, about 18°C, about 20°C, about 25°C, about 30°C, about 32°C, about 35°C, about 37°C). Structural data describing a crystal of the mAb13.2 Fab fragment can be obtained, for example, by X-ray diffraction. X-ray diffraction data can be collected using a variety of means in order to obtain structural coordinates. Suitable X-ray sources include rotating anodes and synchrotron sources (*e.g.*, Advanced Light Source (ALS), Berkeley, California; or Advanced Photon Source (APS), Argonne, Illinois). In certain embodiments, X-rays for generating diffraction data can have a wavelength of from about 0.5 Å to about 1.6 Å (*e.g.*, about 0.7 Å, about 0.9 Å, about 1.0 Å, about 1.1 Å, about 1.3 Å, about 1.4 Å, about 1.5 Å, about 1.6 Å). Suitable X-ray detectors include area detectors and/or charge-couple devices (CCDs) can be used as the detector(s).

In general, a crystal of the mAb13.2 Fab fragment can diffract X-rays to a resolution of about 3.5 Å or less (*e.g.*, about 3.2 Å or less, about 3.0 Å or less, about 2.8 Å or less, about 2.5 Å or less, about 2.4 Å or less, about 2.3 Å or less, about 2.2 Å or less, about 2.1 Å or less, about 2.0 Å or less, about 1.9 Å or less, about 1.8 Å or less, about 1.7 Å or less, about 1.6 Å or less, about 1.5 Å or less, about 1.4 Å or less). In some embodiments, a crystal of the mAb13.2 Fab fragment can diffract X-rays to a resolution of from about 1.6 Å to about 2.5 Å (*e.g.*, from about 1.8 Å to about 2.2 Å).

In certain embodiments, a crystal of the mAb13.2 Fab fragment can be orthorhombic with space group $P2_12_12_1$, and unit cell dimensions a= 54.4, b= 98.0, c=108.5, and $\alpha=\beta=\gamma=$ 90°C.

In general, a complex including human IL-13 and the mAb13.2 Fab fragment can be prepared and crystallized as desired. In some embodiments, the process is as

follows. Human IL-13 is expreased from a DNA plasmid. The expression can be driven by a promoter, such as an inducible promoter. Human IL-13 can be expressed as a fusion protein with a suitable tag (*e.g.*, to facilitate isolation of human IL-13 from cells), such as a glutathione-S-transferase (GST), myc, HA, hexahistidine, or FLAG tag. A fusion protein can be cleaved at a protease site engineered into the fusion protein, such as at or near the site of fusion between the polypeptide and the tag. Human IL-13 can be mixed with the mAb13.2 Fab fragment prior to purification (*e.g.*, prior to cleavage of a polypeptide tag), or human IL-13 can be mixed with the mAb13.2 Fab fragment after purification. In some embodiments, the mAb13.2 Fab fragment can be mixed with human IL-13 prior to purification and again following purification. In some embodiments, human IL-13 polypeptide and the mAb13.2 Fab fragment are combined in a solution for collecting spectral data for the complex, NMR data for the complex, or for growing a crystal of the complex. The solution can contain, for example, one or more salts (*e.g.*, a potassium salt), one or more polymers (*e.g.*, polyethylene glycol (PEG)), and/or one or more organic solvents. Crystals can be grown by various methods, such as, for example, sitting or hanging drop vapor diffusion. In general, crystallization can be performed at about 16°C to 24°C (*e.g.*, about 17°C to 23°C, or 18°C to 21°C).

Structural information for a crystal of a human IL-13/mAb13.2 Fab fragment complex can be obtained by X-ray diffraction. In general, a crystal of a human IL-13/mAb13.2 Fab fragment complex can diffract X-rays to a resolution of about 3.5 Å or less (*e.g.*, about 3.2 Å or less, about 3.0 Å or less, about 2.8 Å or less, about 2.5 Å or less, about 2.4 Å or less, about 2.3 Å or less, about 2.2 Å or less, about 2.1 Å or less, about 2.0 Å or less, about 1.9 Å or less, about 1.8 Å or less, about 1.7 Å or less, about 1.6 Å or less, about 1.5 Å or less, about 1.4 Å or less). In some embodiments, a crystal of a human IL-13/mAb13.2 Fab fragment complex can diffract X-rays to a resolution of from about 1.6 Å to about 2.5 Å (*e.g.*, from about 1.8 Å to about 2.2 Å).

In certain embodiments, a crystal of a human IL-13/mAb13.2 Fab fragment complex can be cubic with space group $P2_13$, and unit cell dimensions a= b= c= 125.3, and $\alpha=\beta=\gamma=$ 90°C. The structure of the complex can be solved to a resolution of 1.8 Å.

In general, a complex including human IL-13, the mAb13.2 Fab fragment, and a human IL-13Rα1 polypeptide can be prepared and crystallized as desired. In some

embodiments, the process is as follows. A human IL-13Rα1 polypeptide is expressed from a DNA plasmid in the yeast strain *Pichia pastoris*, such that the expressed polypeptide is glycosylated. Expression from the DNA plasmid can be driven by a promoter, such as an inducible promoter. The human IL-13Rα1 polypeptide can be expressed as a fusion protein with a suitable tag (*e.g.*, to facilitate isolation of the human IL-13Rα1 polypeptide from cells), such as a glutathione-S-transferase (GST), myc, HA, hexahistidine, or FLAG tag. A fusion protein can be cleaved at a protease site engineered into the fusion protein, such as at or near the site of fusion between the polypeptide and the tag. The human IL-13Rα1 polypeptide can be mixed with human IL-13 to form a complex, and then the polypeptides of the complex can be deglycosylated by treatment with an enzyme such as endoglycosidase H. The mAb13.2 Fab fragment can be added to the deglycosylated complex to form a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab complex.

In some embodiments, the human IL-13Rα1, human IL-13, and mAb13.2 Fab fragment are combined in a solution for collecting spectral data for the complex, NMR data for the complex, or for growing a crystal of the complex. The solution can contain, for example, one or more salts (*e.g.*, a potassium salt), one or more polymers (*e.g.*, polyethylene glycol (PEG)), and/or one or more organic solvents. Crystals can be grown by various methods, such as, for example, sitting or hanging drop vapor diffusion. In general, crystallization can be performed at about 16°C to 24°C (*e.g.*, about 17°C to 23°C, or 18°C to 21°C).

Structural information for a crystal of a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex can be obtained by X-ray diffraction. In general, a crystal of a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex can diffract X-rays to a resolution of about 3.5 Å or less (*e.g.*, about 3.2 Å or less, about 3.0 Å or less, about 2.8 Å or less, about 2.5 Å or less, about 2.4 Å or less, about 2.3 Å or less, about 2.2 Å or less, about 2.1 Å or less, about 2.0 Å or less, about 1.9 Å or less, about 1.8 Å or less, about 1.7 Å or less, about 1.6 Å or less, about 1.5 Å or less, about 1.4 Å or less). In some embodiments, a crystal of a human IL-13/mAb13.2 Fab fragment complex can diffract X-rays to a resolution of from about 1.6 Å to about 2.5 Å (*e.g.*, from about 1.8 Å to about 2.2 Å).

In certain embodiments, a crystal of a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex can be cubic with space group I4, and unit cell

dimensions a= b=164.9 Å, c= 74.8 Å, and $\alpha=\beta=\gamma=$ 90°C. The structure of the complex can be solved to a resolution of 2.2 Å.

X-ray diffraction data of a crystal of the mAb13.2 Fab fragment, human IL-13/mAb13.2 Fab fragment complex, or human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex can be used to obtain the structural coordinates of the atoms in the antibody or the complex. The structural coordinates are Cartesian coordinates that describe the location of atoms in three-dimensional space in relation to other atoms in the complex. As an example, the structural coordinates listed in Table 10 are the structural coordinates of a crystalline mAb13.2 Fab fragment. These structural coordinates describe the location of atoms of the mAb13.2 Fab fragment in relation to each other. As another example, the structural coordinates listed in Table 11 are the structural coordinates of a crystalline human IL-13/mAb13.2 Fab fragment complex. These structural coordinates describe the location of atoms of the human IL-13 in relation to each other, the location of atoms in the human IL-13 in relation to the atoms in the mAb13.2 Fab fragment, and the location of atoms in the mAb13.2 Fab fragment in relation to each other. As yet another example, the structural coordinates listed in Table 12 are the structural coordinates of a crystalline human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex. These structural coordinates describe the location of atoms of the IL-13Rα1 polypeptide in relation to each other, the location of atoms in the human IL-13Rα1 polypeptide in relation to the atoms in human IL-13, the location of atoms in human IL-13 in relation to each other, the location of atoms in human IL-13 in relation to the atoms in the mAb13.2 Fab fragment and the location of atoms in the mAb13.2 Fab fragment in relation to each other.

The structural coordinates of a crystal can be modified by mathematical manipulation, such as by inversion or integer additions or subtractions. As such, structural coordinates are relative coordinates. As an example, structural coordinates describing the location of atoms in the mAb13.2 Fab fragment are not specifically limited by the actual x, y, and z coordinates of Table 10. As another example, structural coordinates describing the location of atoms in the human IL-13 bound to the mAb13.2 Fab fragment are not specifically limited by the actual x, y, and z coordinates of Table 11. As yet another example, structural coordinates describing the location of atoms in the human IL-13 bound to both the mAb13.2 Fab fragment and

the human IL-13Rα1 polypeptide are not specifically limited by the actual x, y, and z coordinates of Table 12.

The structural coordinates of the mAb13.2 Fab fragment or human IL-13/mAb13.2 Fab fragment complex or human IL-Rα1 polypeptide/human IL-13/mAb 13.2 Fab fragment complex can be used to derive a representation (*e.g.*, a two dimensional representation or three dimensional representation) of the mAb13.2 Fab fragment, a fragment of the mAb13.2 Fab fragment, human IL-13, a fragment of human IL-13, the human IL-13Rα1 polypeptide, a fragment of the IL-13Rα1 polypeptide, the human IL-13/mAb13.2 Fab fragment complex or human IL-Rα1 polypeptide/human IL-13/mAb 13.2 Fab fragment complex, or a fragment of either complex. Such a representation can be useful for a number of applications, including, for example, the visualization, identification and characterization of an active site of the polypeptide. In certain embodiments, a three-dimensional representation can include the structural coordinates of the mAb13.2 fragment according to Table 10 ± a root mean square deviation from the alpha carbon atoms of amino acids of about 1.5 Å or less (*e.g.*, about 1.0 Å or less, or about 0.5 Å or less). In other embodiments, a three-dimensional representation can include the structural coordinates of a human IL-13/mAb13.2 Fab fragment complex according to Table 11 ± a root mean square deviation from the alpha carbon atoms of amino acids of not more than about 1.5 Å (*e.g.*, not more than about 1.0 Å, not more than about 0.5 Å or less). In yet other embodiments, a three-dimensional representation can include the structural coordinates of a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex according to Table 12 ± a root mean square deviation from the alpha carbon atoms of amino acids of not more than about 1.5 Å (*e.g.*, not more than about 1.0 Å, not more than about 0.5 Å or less). Root mean square deviation (rms deviation, or rmsd) is the square root of the arithmetic mean of the squares of the deviations from the mean, and is a way of expressing deviation or variation from structural coordinates. Conservative substitutions of amino acids can result in a molecular representation having structural coordinates within the stated root mean square deviation. For example, two molecular models of polypeptides that differ from one another by conservative amino acid substitutions can have coordinates of backbone atoms within a stated rms deviation, such as less than about 1.5 Å (*e.g.*, less than about about 1.0 Å, less than about 0.5 Å). Backbone atoms of a polypeptide include

the alpha carbon (C_α or CA) atoms, carbonyl carbon (C) atoms, and amide nitrogen (N) atoms.

Various software programs allow for the graphical representation of a set of structural coordinates to obtain a representation of a molecule or molecular complex, such as the mAb13.2 Fab fragment or the human IL-13/mAb13.2 Fab fragment complex or the human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex. In general, such a representation should accurately reflect (relatively and/or absolutely) structural coordinates, or information derived from structural coordinates, such as distances or angles between features. The representation can be a two-dimensional figure, such as a stereoscopic two-dimensional figure, or an interactive two-dimensional display (*e.g.*, a computer display that can display different faces of the molecule or molecular complex), or an interactive stereoscopic two-dimensional display. An interactive two-dimensional display can be, for example, a computer display that can be rotated to show different faces of a polypeptide, a fragment of a polypeptide, a complex and/or a fragment of a complex. In some embodiments, the representation is a three-dimensional representation. As an example, a three-dimensional model can be a physical model of a molecular structure (*e.g.*, a ball-and-stick model). As another example, a three dimensional representation can be a graphical representation of a molecular structure (*e.g.*, a drawing or a figure presented on a computer display). A two-dimensional graphical representation (*e.g.*, a drawing) can correspond to a three-dimensional representation when the two-dimensional representation reflects three-dimensional information, for example, through the use of perspective, shading, or the obstruction of features more distant from the viewer by features closer to the viewer. In some embodiments, a representation can be modeled at more than one level. As an example, when the three-dimensional representation includes a polypeptide, such as human IL-13 bound to the mAb13.2 Fab fragment, the polypeptide can be represented at one or more different levels of structure, such as primary structure (amino acid sequence), secondary structure (*e.g.*, I-helices and β-sheets), tertiary structure (overall fold), and quaternary structure (oligomerization state). The heavy and light chain polypeptides of the mAb13.2 Fab fragment can also be represented at the one or more different structural levels. A representation can include different levels of detail. For example, the representation can include the relative locations of secondary structural features of a protein without specifying the

positions of atoms. A more detailed representation could, for example, include the positions of atoms.

In some embodiments, a representation can include information in addition to the structural coordinates of the atoms in the mAb13.2 Fab fragment, the human IL-13/mAb13.2 Fab fragment complex, or the human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex. For example, a representation can provide information regarding the shape of a solvent accessible surface, the van der Waals radii of the atoms of the model, and the van der Waals radius of a solvent (*e.g.*, water). Other features that can be derived from a representation include, for example, electrostatic potential, the location of voids or pockets within a macromolecular structure, and the location of hydrogen bonds and salt bridges.

An agent that interacts with the mAb13.2 Fab fragment, human IL-13, or the human IL-13Rα1 polypeptide can be identified or designed by a method that includes using a representation of the mAb13.2 Fab fragment, a human IL-13, a human IL-13Rα1 polypeptide, a human IL-13/mAb13.2 Fab fragment complex, or a human IL-13-Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex. Exemplary types of representations include the representations discussed above. In some embodiments, the representation can be of an analog polypeptide, polypeptide fragment, complex or fragment of a complex. A candidate agent that interacts with the representation can be designed or identified by performing computer fitting analysis of the candidate agent with the representation. In general, an agent is a molecule. Examples of agents include polypeptides, nucleic acids (including DNA or RNA), or small molecules (*e.g.*, small organic molecules). An agent can be a ligand, and can act, for example, as an agonist or antagonist. An agent that interacts with a polypeptide (*e.g.*, human IL-13, human IL-13Rα1 polypeptide) can interact transiently or stably with the polypeptide. The interaction can be mediated by any of the forces noted herein, including, for example, hydrogen bonding, electrostatic forces, hydrophobic interactions, and van der Waals interactions.

As noted above, X-ray crystallography can be used to obtain structural coordinates of an mAb13.2 Fab fragment, a human IL-13/mAb13.2 Fab fragment complex, or a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex. However, such structural coordinates can be obtained using other techniques including NMR techniques. Additional structural information can be

obtained from spectral techniques (*e.g.*, optical rotary dispersion (ORD), circular dichroism (CD)), homology modeling, and computational methods such as those that include data from molecular mechanics or from dynamics assays).

In some embodiments, the X-ray diffraction data can be used to construct an electron density map of the mAb13.2 Fab fragment, the human IL-13/mAb13.2 Fab fragment complex, or the human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex. The electron density map can be used to derive a representation (*e.g.*, a two dimensional representation or a three dimensional representation) of the mAb13.2 Fab fragment, a fragment of the mAb13.2 Fab fragment, human IL-13 or a fragment of human IL-13, the human IL-13Rα1 polypeptide or a fragment of the human IL-13Rα1 polypeptide, the human IL-13/mAb13.2 Fab fragment complex, the human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex, or a fragment of either complex. Creation of an electron density map typically involves using information regarding the phase of the X-ray scatter. Phase information can be extracted, for example, either from the diffraction data or from supplementing diffraction experiments to complete the construction of the electron density map. Methods for calculating phase from X-ray diffraction data include, without limitation, multiwavelength anomalous dispersion (MAD), multiple isomorphous replacement (MIR), multiple isomorphous replacement with anomalous scattering (MIRAS), single isomorphous replacement with anomalous scattering (SIRAS), reciprocal space solvent flattening, molecular replacement, or a combination thereof. These methods generate phase information by making isomorphous structural modifications to the native protein, such as by including a heavy atom or changing the scattering strength of a heavy atom already present, and then measuring the diffraction amplitudes for the native protein and each of the modified cases. If the position of the additional heavy atom or the change in its scattering strength is known, then the phase of each diffracted X-ray can be determined by solving a set of simultaneous phase equations. The location of heavy atom sites can be identified using a computer program, such as SHELXS (Sheldrick, Institut Anorg. Chemie, Göttingen, Germany), and diffraction data can be processed using computer programs such as MOSFLM, SCALA, SOLOMON, and SHARP ("The CCP4 Suite: Programs for Protein Crystallography," *Acta Crystallogr. Sect. D*, 54:905-921, 1997; deLa Fortelle and Brigogne, *Meth.*

Enzym. 276:472-494, 1997). Upon determination of the phase, an electron density map of the complex can be constructed.

The electron density map can be used to derive a representation of a polypeptide, a complex, or a fragment of a polypeptide or complex by aligning a three-dimensional model of a polypeptide or complex (*e.g.*, a complex containing a polypeptide bound to an antibody) with the electron density map. The alignment process results in a comparative model that shows the degree to which the calculated electron density map varies from the model of the previously known polypeptide or the previously known complex. The comparative model is then refined over one or more cycles (*e.g.*, two cycles, three cycles, four cycles, five cycles, six cycles, seven cycles, eight cycles, nine cycles, ten cycles) to generate a better fit with the electron density map. A software program such as CNS (Brunger *et al., Acta Crystallogr.* D54:905-921, 1998) can be used to refine the model. The quality of fit in the comparative model can be measured by, for example, an R_{work} or R_{free} value. A smaller value of R_{work} or R_{free} generally indicates a better fit. Misalignments in the comparative model can be adjusted to provide a modified comparative model and a lower R_{work} or R_{free} value. The adjustments can be based on information relating to human IL-13, human IL-13Rα1, the mAb13.2 Fab fragment, the previously known polypeptide and/or the previously known complex. Such information includes, for example, estimated helical or beta sheet content, hydrophobic and hydrophilic domains, and protein folding patterns, which can be derived, for example, from amino acid sequence, homology modeling, and spectral data. As an example, in embodiments in which a model of a previously known complex of a polypeptide bound to a ligand is used, an adjustment can include replacing the ligand in the previously known complex with the mAb13.2 fragment. As another example, in certain embodiments, an adjustment can include replacing an amino acid in the previously known polypeptide with the amino acid in the corresponding site of human IL-13. When adjustments to the modified comparative model satisfy a best fit to the electron density map, the resulting model is that which is determined to describe the antibody or polypeptide or complex from which the X-ray data was derived (*e.g.*, the human IL-13/mAb13.2 Fab fragment complex). Methods of such processes are disclosed, for example, in Carter and Sweet, eds., "Macromolecular Crystallography" in Methods in Enzymology, Vol. 277, Part B, New York: Academic Press, 1997, and

articles therein, *e.g.*, Jones and Kjeldgaard, "Electron-Density Map Interpretation," p. 173, and Kleywegt and Jones, "Model Building and Refinement Practice," p. 208.

In some embodiments, a representation of the mAb13.2 Fab fragment can be derived by aligning a previously determined structural model of a different (but similar) antibody Fab fragment (*e.g.*, a 2E8 Fab antibody fragment, Protein Databank Identification No. 12E8) with the electron density map of the mAb13.2 Fab fragment derived from X-ray diffraction data. A representation of a human IL-13/mAb13.2 Fab fragment complex can subsequently be derived by aligning the previously determined structural model of the mAb13.2 Fab fragment with the electron density map of the complex. A representation of a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex can subsequently be derived by aligning the previously determined structural model of the human IL-13/mAb13.2 Fab fragment complex with the electron density map of the human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex.

A machine, such as a computer, can be programmed in memory with the structural coordinates of the mAb13.2 Fab fragment, a human IL-13/mAb13.2 Fab fragment complex, or a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 Fab fragment complex together with a program capable of generating a three-dimensional graphical representation of the structural coordinates on a display connected to the machine. Alternatively or additionally, a software system can be designed and/or utilized to accept and store the structural coordinates. The software system can be capable of generating a graphical representation of the structural coordinates. The software system can also be capable of accessing external databases to identify compounds (*e.g.*, polypeptides) with similar structural features as human IL-13 or human IL-13Rα1, and/or to identify one or more candidate agents with characteristics that may render the candidate agent(s) likely to interact with human IL-13 or human IL-13Rα1. The software system can also be capable of accessing external databases to identify compounds that interact with human IL-13 or human IL-13Rα1 by virtue of the knowledge of the structure of the mAb13.2 Fab fragment, or human IL-13Rα1 polypeptide, and its interaction with human IL-13.

A machine having a memory containing structure data or a software system containing such data can aid in the rational design or selection of IL-13 ligands, such as agonists or antagonists. For example, such a machine or software system can aid in

the evaluation of the ability of an agent to associate with human IL-13, can aid in the modeling of compounds or proteins related by structural or sequence homology to human IL-13, or can aid in the evaluation of the ability of an agent to interfere with the bioactivity of human IL-13. A bioactivity of human IL-13can be any effect that the polypeptide elicits on or in a cell or tissue *in vivo* or *in vitro*. Exemplary bioactivities of human IL-13 are described herein, such as in Examples 1 and 2.

A machine having a memory containing structure data or a software system containing such data can aid in the rational design or selection of IL-13Rα1 ligands, such as agonists or antagonists. For example, such a machine or software system can aid in the evaluation of the ability of an agent to associate with a human IL-13Rα1 polypeptide, can aid in the modeling of compounds or proteins related by structural or sequence homology to a human IL-13Rα1 polypeptide, or can aid in the evaluation of the ability of an agent to interfere with the bioactivity of a human IL-13Rα1 polypeptide. A bioactivity of a human IL-13Rα1 polypeptide can be any affect that the polypeptide elicits on or in a cell or tissue *in vivo* or *in vitro*. Exemplary bioactivities of human IL-13Rα1 are described herein, such as in Example 3.

The machine can produce a representation (*e.g.*, a two dimensional representation or a three dimensional representation) of the mAb13.2 Fab fragment or a fragment of the mAb13.2 Fab fragment, human IL-13 or a fragment of human IL-13, a human IL-13Rα1 polypeptide or a fragment of a human IL-13Rα1 polypeptide, a human IL-13/mAb13.2 Fab fragment complex, a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 fab fragment complex, or a fragment of either complex. A software system, for example, can cause the machine to produce such information. The machine can include a machine-readable data storage medium including a data storage material encoded with machine-readable data. The machine-readable data can include structural coordinates of atoms of the mAb13.2 Fab fragment or atoms of a fragment of the mAb13.2 Fab fragment, atoms of human IL-13 or atoms of a fragment of human IL-13, atoms of a human IL-13/mAb13.2 Fab fragment complex, atoms of a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 fab fragment complex, or atoms of either complex. Machine-readable storage media including data storage material can include conventional computer hard drives, floppy disks, DAT tape, CD-ROM, DVD, and other magnetic, magneto-optical, optical, and other media which may be adapted for use with a computer. The machine can also

have a working memory for storing instructions for processing the machine-readable data, as well as a central processing unit (CPU) coupled to the working memory and to the machine-readable data storage medium for the purpose of processing the machine-readable data into the desired three-dimensional representation. Finally, a display can be connected to the CPU so that the three-dimensional representation may be visualized by the user. Accordingly, when used with a machine programmed with instructions for using the data (*e.g.*, a computer loaded with one or more programs of the sort described herein) the machine is capable of displaying a graphical representation (*e.g.*, a two dimensional graphical representation, a three-dimensional graphical representation) of any of the polypeptides, polypeptide fragments, complexes, or complex fragments described herein.

A display (*e.g.*, a computer display) can show a representation of the mAb13.2 Fab fragment or a fragment of the mAb13.2 Fab fragment, human IL-13 or a fragment of human IL-13, a human IL-13Rα1 polypeptide or a fragment of a human IL-13Rα1 polypeptide, a human IL-13/mAb13.2 Fab fragment complex, a human IL-13Rα1 polypeptide/human IL-13/mAb13.2 fab fragment complex, or a fragment of either complex. The representation can also include an agent bound to human IL-13 or the human IL-13Rα1 polypeptide, or the user can superimpose a three-dimensional model of an agent on the representation of human IL-13 or the human IL-13Rα1 polypeptide. The agent can be an agonist (*e.g.*, a candidate agonist) of human IL-13 or human IL-13Rα1, or an antagonist (*e.g.*, a candidate antagonist) of human IL-13 or human IL-13Rα1. In some embodiments, the agent can be a known compound or fragment of a compound. In certain embodiments, the agent can be a previously unknown compound, or a fragment of a previously unknown compound.

The user can inspect the resulting representation. A representation of the mAb13.2 Fab fragment or fragment of the mAb13.2 Fab fragment, human IL-13 or fragment of the human IL-13, the human IL-13Ra1 polypeptide or fragment of the human IL-13Ra1 polypeptide, the human IL-13/mAb13.2 Fab fragment complex, the human IL-13Rα1 polypeptide/human IL-13/mAb13.2 fab fragment complex, or the fragment of either complex can be generated, for example, by altering a previously existing representation of such polypeptides and polypeptide complexes. For example, there can be a preferred distance, or range of distances, between atoms of the antibody and atoms of the human IL-13 when considering a new representation of

a complex or fragment of a complex. In another example, there can be a preferred distance, or range of distances, between atoms of the human IL-13 and the human IL-13Rα1 polypeptide when considering a new representation of a complex or fragment of a complex. Distances longer than a preferred distance may be associated with a weak interaction between the agent and active site (*e.g.*, the site of IL-13 receptor binding (such as to an IL-13Rα1 receptor polypeptide or an IL-4 receptor polypeptide) on the IL-13 polypeptide). Distances shorter than a preferred distance may be associated with repulsive forces that can weaken the interaction between the agent and the polypeptide. A steric clash can occur when distances between atoms are too short. A steric clash occurs when the locations of two atoms are unreasonably close together, for example, when two atoms are separated by a distance less than the sum of their van der Waals radii. If a steric clash exists, the user can adjust the position of the agent relative to the human IL-13 (*e.g.*, a rigid body translation or rotation of the agent), until the steric clash is relieved. The user can adjust the conformation of the agent or of the human IL-13 in the vicinity of the agent in order to relieve a steric clash. Steric clashes can also be removed by altering the structure of the agent, for example, by changing a "bulky group," such as an aromatic ring, to a smaller group, such as to a methyl or hydroxyl group, or by changing a rigid group to a flexible group that can accommodate a conformation that does not produce a steric clash. Electrostatic forces can also influence an interaction between an agent and a polypeptide (such as the part of the polypeptide that interacts with a receptor polypeptide, *e.g.*, a human IL-13Rα1 polypeptide or a human IL-4R polypeptide). For example, electrostatic properties can be associated with repulsive forces that can weaken the interaction between the agent and the IL-13 polypeptide. Altering the charge of the agent, *e.g.*, by replacing a positively charged group with a neutral group can relieve electrostatic repulsion. Similar processes can be performed to design an agent that interacts with a human IL-13Rα1 polypeptide, such as in the vicinity of interaction between the human IL-13Rα1 polypeptide and human IL-13.

Forces that influence binding strength between the mAb13.2 Fab fragment and human IL-13 can be evaluated in the polypeptide/agent model. Likewise, forces that influence binding strength between human IL-13 and the human IL-13Rα1 polypeptide can be evaluated in the polypeptide/agent model. These can include, for example, hydrogen bonding, electrostatic forces, hydrophobic interactions, van der

Waals interactions, dipole-dipole interactions, π-stacking forces, and anion-π interactions. The user can evaluate these forces visually, for example by noting a hydrogen bond donor/acceptor pair arranged with a distance and angle suitable for a hydrogen bond. Based on the evaluation, the user can alter the model to find a more favorable interaction between the human IL-13, or human IL-13Rα1 polypeptide, and the agent. Altering the model can include changing the three-dimensional structure of the polypeptide without altering its chemical structure, for example by altering the conformation of amino acid side chains or backbone dihedral angles. Altering the model can include altering the position or conformation of the agent, as described above. Altering the model can also include altering the chemical structure of the agent, for example by substituting, adding, or removing groups. For example, if a hydrogen bond donor on the human IL-13 is located near a hydrogen bond donor on the agent, the user can replace the hydrogen bond donor on the agent with a hydrogen bond acceptor.

The relative locations of the agent and the human IL-13, or their conformations, can be adjusted to find an optimized binding geometry for a particular agent to the IL-13 polypeptide. Likewise, the relative locations of the agent and the human IL-13Rα1 polypeptide can be adjusted to find an optimized binding geometry for a particular agent to the human IL-13Rα1 polypeptide. An optimized binding geometry is characterized by, for example, favorable hydrogen bond distances and angles, maximal electrostatic attractions, minimal electrostatic repulsions, the sequestration of hydrophobic moieties away from an aqueous environment, and the absence of steric clashes. The optimized geometry can have the lowest calculated energy of a family of possible geometries for a human IL-13 /antibody complex, or a human IL-13/receptor complex. An optimized geometry can be determined, for example, through molecular mechanics or molecular dynamics calculations.

A series of representations of human IL-13 bound to different agents can be generated. Likewise, a series of representations of a human IL-13Rα1 polypeptide bound to different agents can be generated. A score can be calculated for each representation. The score can describe, for example, an expected strength of interaction between human IL-13 and the agent. The score can reflect one of the factors described above that influence binding strength. The score can be an

aggregate score that reflects more than one of the factors. The different agents can be ranked according to their scores.

Steps in the design of the agent can be carried out in an automated fashion by a machine (*e.g.*, a computer). For example, a representation of human IL-13, or a human IL-13Rα1 polypeptide can be programmed in the machine, along with representations of candidate agents. The machine can find an optimized binding geometry for each of the candidate agents to the site of receptor binding, and calculate a score to determine which of the agents in the series is likely to interact most strongly with human IL-13, or the human IL-13Rα1 polypeptide.

A software system can be designed and/or implemented to facilitate these steps. Software systems (*e.g.*, computer programs) used to generate representations or perform the necessary fitting analyses include, but are not limited to: MCSS, Ludi, QUANTA, Insight II, Cerius2, CHARMm, and Modeler from Accelrys, Inc. (San Diego, CA); SYBYL, Unity, FleXX, and LEAPFROG from TRIPOS, Inc. (St. Louis, MO); AUTODOCK (Scripps Research Institute, La Jolla, CA), GRID (Oxford University, Oxford, UK); DOCK (University of California, San Francisco, CA); and Flo$^+$ and Flo99 (Thistlesoft, Morris Township, NJ). Other useful programs include ROCS, ZAP, FRED, Vida, and Szybki from Openeye Scientific Software (Santa Fe, NM); Maestro, Macromodel, and Glide from Schrodinger, LLC (Portland, OR); MOE (Chemical Computing Group, Montreal, Quebec), Allegrow (Boston De Novo, Boston, MA), CNS (Brunger, *et al., Acta Crystall. Sect. D* 54:905-921, 1997) and GOLD (Jones *et al., J. Mol. Biol.* 245:43-53, 1995. The structural coordinates can also be used to visualize the three-dimensional structure of human IL-13 using MOLSCRIPT, RASTER3D, or PYMOL (Kraulis, *J. Appl. Crystallogr.* 24: 946-950, 1991; Bacon and Anderson, *J. Mol. Graph.* 6: 219-220, 1998; DeLano, The PYMOL Molecular Graphics System (2002) DeLano Scientific, San Carlos, CA).

The agent can, for example, be selected by screening an appropriate database, can be designed *de novo* by analyzing the steric configurations and charge potentials of an unbound human IL-13, or unbound human IL-13Rα1 polypeptide, in conjunction with the appropriate software systems, and/or can be designed using characteristics of known cytokine ligands. The agent can be tested for an ability to block binding of IL-13 to an IL-4R polypeptide, such as IL-4Rα, or an IL-Rα1 polypeptide. An agent can be designed for binding to human IL-13 or to the human

IL-13Rα1 polypeptide. The method can be used to design or select agonists or antagonists of human IL-13 or a human IL-Rα1 polypeptide. A software system can be designed and/or implemented to facilitate database searching, and/or agent selection and design.

Once an agent has been designed or identified, it can be obtained or synthesized and further evaluated for its affect on human IL-13 activity or on human IL-13Rα1 activity. The agent can be evaluated by contacting it with human IL-13 and assaying IL-13 bioactivity, or by contacting it with a human IL-13Rα1 polypeptide and assaying IL-13Rα1 bioactivity. A method for evaluating the agent can include an activity assay performed *in vitro* or *in vivo*. An activity assay can be a cell-based assay, for example. Depending upon the action of the agent on human IL-13 or the human IL-13Rα1 polypeptide, the agent can act either as an agonist or antagonist of human IL-13 or IL-13Rα1 activity. An agonist will cause human IL-13 or human IL-13Rα1 polypeptide to have the same or similar activity, and an antagonist will inhibit a normal function of human IL-13 or the human IL-13Rα1 polypeptide. An agent can be contacted with the human IL-13 in the presence of an anti-IL-13 antibody (*e.g.*, mAb13.2 or mAb13.2 Fab) or a human IL-13 receptor (*e.g.*, an IL-4R polypeptide, such as a human IL-4Rα polypeptide, or an IL-13R polypeptide, such as a human IL-13Rα1 polypeptide) to determine whether or not the agent inhibits binding of the antibody or the receptor to the human IL-13 polypeptide. In some embodiments, the agent will inhibit binding of one kind of receptor to human IL-13, but will not inhibit binding of another kind of receptor. For example, an agent can inhibit binding of a human IL-13 polypeptide to a human IL-4R polypeptide (*e.g.*, the IL-4Rα chain), but not a human IL-13Rα1 polypeptide. Likewise, a different agent can inhibit binding of human IL-13 to an IL-13Rα1 polypeptide but not to a human IL-4R polypeptide. In another embodiment, the agent will inhibit binding of the IL-13 polypeptide to a human IL 4R polypeptide (e.g., the IL-4Rα chain) and a human IL-13Rα1 polypeptide. A crystal containing human IL-13 bound to the identified agent can be grown and the structure determined by X-ray crystallography. A second agent can be designed or identified based on the interaction of the first agent with human IL-13. Various molecular analysis and rational drug design techniques are further disclosed in, for example, U.S. Patent Nos. 5,834,228, 5,939,528 and 5,856,116, as well as in PCT Application No. PCT/US98/16879, published as WO 99/09148.

While certain embodiments have been described, other embodiments are also contemplated.

As an example, while embodiments involving human IL-13, the mAb13.2 Fab fragment, and a human IL-13Rα1 polypeptide have been described, more generally, any IL-13 polypeptide, any IL-13Rα1 polypeptide, and/or any anti-IL-13 antibody can be used.

As an example, while embodiments have been described that involve human IL-13 and a human IL-13Rα1 polypeptide, more generally any IL-13 polypeptide and any IL-13Rα1 polypeptide can be used. For example, an IL-13 polypeptide or an IL-13Rα1 polypeptide can originate from a nonmammalian or mammalian species. Exemplary nonhuman mammals include, a nonhuman primate (such as a monkey or ape), a mouse, rat, goat, cow, bull, pig, horse, sheep, wild boar, sea otter, cat, or dog. Exemplary nonmammalian species include chicken, turkey, shrimp, alligator, or fish.

Further, an IL-13 polypeptide or an IL-13Rα1 polypeptide can generally be a full-length, mature polypeptide, including the full-length amino acid sequence of any isoform or processed form of an IL-13 polypeptide or IL-13Rα1 polypeptide. An isoform is any of several multiple forms of a protein that differ in their primary structure. Full-length IL-13 can be referred to as the precursor form of the protein. Full-length IL-13 has a signal peptide cleavage site. The IL-13 polypeptide can be the processed polypeptide, such as following cleavage of the signal peptide.

A human IL-13 polypeptide typically has at least one active site for interacting with a receptor polypeptide (*e.g.*, an IL-4R polypeptide, an IL-13α1 polypeptide). An IL-13 polypeptide can include three active sites for interacting with two different receptor polypeptides. An anti-IL-13 antibody can be capable of binding to at least one of the active sites. In general, an active site can include a site of receptor polypeptide binding, or a site of phosphorylation, glycosylation, alkylation, acylation, or other covalent modification. An active site can include accessory binding sites adjacent or proximal to the actual site of binding that may affect activity upon interaction with the ligand. An active site of a human IL-13 polypeptide can include amino acids of SEQ ID NO:4. For example, an active site of a human IL-13 polypeptide can include one or more of amino acids Ser7, Thr8, Ala9, Glu12, Leu48, Glu49, Ile52, Asn53, Arg65, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74, and Arg86 as defined by the amino acid sequence of SEQ ID NO:4 (FIG. 2B). In some

embodiments, an agent can interact to within about 2.0Å or less (*e.g.*, about 1.5Å or less, about 1.0Å or less) of one or more amino acids Glu49, Asn53, Gly69, Pro72, His73, Lys74, and Arg86 of IL-13, as defined by the amino acid sequence of SEQ ID NO:4. In one alternative, an active site of a human IL-13 polypeptide can include one or more of amino acids Arg11, Glu12, Leu13, Ile14, Glu15, Lys104, Lys105, Leu106, Phe107, and Arg108 as defined by the amino acid sequence of SEQ ID NO:4. In another alternative, an active site of a human IL-13 polypeptide can include one or more of amino acids Thr88, Lys89, Ile90, and Glu91 as defined by the amino acid sequence of SEQ ID NO:4. A human IL-13 polypeptide can include one, two, or all three of the active sites described above.

A human IL-13Rα1 polypeptide typically has at least one active site for interacting with a polypeptide ligand (*e.g.*, a human IL-13 polypeptide). An anti-IL-13Rα1 antibody can be capable of binding to at least one of the active sites. In general, an active site can include a site of polypeptide ligand binding, or a site of phosphorylation, glycosylation, alkylation, acylation, or other covalent modification. An active site can include accessory binding sites adjacent or proximal to the actual site of binding that may affect activity upon interaction with the ligand. An active site of a human IL-13Rα1 polypeptide can include amino acids of SEQ ID NO:12. For example, an active site of a human IL-13Rα1 polypeptide can include one or more of amino acid residues Ile254, Ser255, Arg256, Lys318, Cys320, and Tyr321 as defined by the amino acid sequence of SEQ ID NO:12. In one alternative, an active site of a human IL-13Rα1 polypeptide can include one or more of amino acid residues Lys76, Lys77, Ile78, and Ala79 as defined by the amino acid sequence of SEQ ID NO:12. A human IL-13Rα1 polypeptide can include one or both of these active sites.

The numbering of the amino acids of a human IL-13 polypeptide, a human IL-13Rα1 polypeptide, and the heavy and light chains of an anti-IL-13 antibody, such as mAb13.2 Fab, may be different than that set forth here, and may contain certain conservative amino acid substitutions, additions or deletions that yield the same three-dimensional structure as those defined by Table 10, ± an rmsd for backbone atoms of less than 1.5 Å, or by Table 11, ± an rmsd for backbone atoms of less than 1.5 Å, or by Table 12, ± an rmsd for backbone atoms of less than 1.5 Å. For example, the numbering of a human IL-13 processed polypeptide may be different than that set forth in FIG. 2B, and the sequence of the IL-13 may contain conservative amino acid

substitutions but yield the same structure as that defined by the coordinates of Table 11 and illustrated in FIG. 3 or the same structure as that defined by the coordinates of Table 12 and illustrated in FIGs. 15,16 and 17. Corresponding amino acids and conservative substitutions in other isoforms or analogs are easily identified by visual inspection of the relevant amino acid sequences or by using commercially available homology software programs (*e.g.*, MODELLAR, MSI, San Diego, CA).

An analog is a polypeptide having conservative amino acid substitutions. Conservative substitutions are amino acid substitutions that are functionally or structurally equivalent to the substituted amino acid. A conservative substitution can include switching one amino acid for another with similar polarity, or steric arrangement, or belonging to the same class (*e.g.*, hydrophobic, acidic or basic) as the substituted amino acid. Conservative substitutions include substitutions having an inconsequential effect on the three-dimensional structure of an anti-IL-13 antibody or a human IL-13 polypeptide/anti-IL-13 antibody complex or a human IL-13Rα1 polypeptide/human IL-13 polypeptide/anti-IL-13 antibody complex with respect to identification and design of agents that interact with the polypeptide (*e.g.*, an IL-13 polypeptide, an IL-13Rα1 polypeptide), as well as for molecular replacement analyses and/or for homology modeling.

While examples have been described in which an anti-IL-13 antibody is derived from a mouse, more generally any anti-IL-13 antibody can be used. For example, an anti-IL-13 antibody can originate from a human, mouse, rat, hamster, rabbit, goat, horse, or chicken.

As another example, while embodiments have been described in which an anti-IL-13 antibody is generated by a certain method, other methods may also be used. For example, an anti-IL-13 antibody can be generated by first preparing polyclonal antisera by immunization of female BALB/c mice with recombinant or native human IL-13. Sera can be screened for binding to human IL-13 by an assay such as ELISA. Splenocytes from a mouse demonstrating high serum antibody titers can be fused with a myeloma cell line, such as the P3X63_AG8.653 myeloma cell line (ATCC, Manassas, VA), and plated in selective media. Fusions can be isolated following multiple rounds of subcloning by limiting dilution and the fusions can be screened for the production of antibodies that have a binding affinity to human IL-13.

An anti-IL-13 antibody can be polyclonal or monoclonal. An antibody that binds IL-13 can be a fragment of an antibody, such as a Fab fragment.

In general, intact antibodies, also known as immunoglobulins, are tetrameric glycosylated proteins composed of two light (L) chains of approximately 25 kDa each and two heavy (H) chains of approximately 50 kDa each. Each light chain is composed of an N-terminal variable (V) domain (VL) and a constant (C) domain (CL). Each heavy chain is composed of an N-terminal V domain (VH), three or four C domains (CHs), and a hinge region. The CH domain most proximal to VH is designated as CH1. The VH and VL domain consist of four regions of relatively conserved sequence called framework regions, which form a scaffold for three regions of hypervariable sequence (complementarity determining regions, CDRs). The CDRs contain most of the residues responsible for specific interactions with the antigen. CDRs are referred to as CDR1, CDR2, and CDR3. Accordingly, CDR constituents on the heavy chain are referred to as H1, H2, and H3, while CDR constituents on the light chain are referred to as L1, L2, and L3 (see Table 4, for example). The subunit structures and three-dimensional configurations of different classes of immunoglobulins are well known in the art. For a review of antibody structure, see Antibodies: A Laboratory Manual, Cold Spring Harbor Laboratory, eds. Harlow *et al.* (1988). The smallest antigen-binding fragment is the Fv (Fragment variable), which consists of the VH and VL domains. The Fab (fragment antigen binding) fragment consists of the VH-CH1 and VL-CL domains covalently linked by a disulfide bond between the constant regions.

Accordingly, in one aspect, this application features an antibody or an antigen-binding fragment thereof, that binds to and/or neutralizes, IL-13. The antibody or fragment thereof can also be a human, humanized, chimeric, or *in vitro*-generated antibody. In one embodiment, the anti-IL-13 antibody or fragment thereof is a humanized antibody. The antibody includes one or more CDRs that has a backbone conformation of a CDR described in Table 10 ± a root mean square deviation (RMSD) of not more than 1.5, 1.2, 1.1, or 1.0 Angstroms, Table 11 ± an RMSD of not more than 1.5, 1.2, 1.1, or 1.0 Angstroms, or Table 12 ± an RMSD of not more than 1.5, 1.2, 1.1, or 1.0 Angstroms. For example, one, two, or three of the CDRs of the light chain variable domain (e.g., particularly in CDR1, or in at least two CDRs,

e.g., CDR1 and CDR3, CDR1 and CDR2, or in all three CDRs) have an RMSD of not more than 1.5, 1.2, 1.1, or 1.0 Angstroms, relative to those structures. In one embodiment, the antibody or antigen binding fragment thereof includes a variable domain that, as a whole, has a backbone conformation of a CDR described in Table 10 ± a root mean square deviation (RMSD) of not more than 1.5, 1.2, 1.1, or 1.0 Angstroms, Table 11 ± an RMSD of not more than 1.5, 1.2, 1.1, or 1.0 Angstroms, or Table 12 ± an RMSD of not more than 1.5, 1.2, 1.1, or 1.0 Angstroms. The variable domain can also be at least at least 70%, 80%, 85%, 87%, 90%, 92%, 93%, 95%, 96%, 97%, 98%, or 99% identical to an antibody described herein, e.g., in the CDR region and/or framework regions. The antibody can be used, e.g., in a method of treatment described herein.

Anti-IL-13 antibodies are disclosed, for example, in U.S. Provisional Patent Application No. 60/578,473, filed June 9, 2004, U.S. Provisional Patent Application No. 60/581,375 filed June 22, 2004, and U.S. Patent Application No. _____ [Attorney Docket: AM101493] (Kasaian *et al.*), filed on even date herewith, each of which is incorporated herein by reference.

The following examples are illustrative and are not intended as limiting.

EXAMPLES

Example 1. Generation and functional analysis of mAb13.2. To generate an antibody that recognizes IL-13, polyclonal antisera were prepared by immunization of female BALB/c mice with recombinant human IL-13 (R&D Systems, Minneapolis, MN). Sera were screened for binding to human IL-13 by ELISA. Splenocytes from a mouse demonstrating high serum antibody titers were fused with the P3X63_AG8.653 myeloma cell line (ATCC, Manassas, VA), and plated in selective media. Fusions were isolated with three rounds of subcloning by limiting dilution and screened for the production of antibodies that had a binding affinity to human IL-13. Three monoclonal antibodies were capable of binding IL-13 and neutralizing and/or inhibiting its bioactivity. The monoclonal antibody mAb13.2 (IgG1κ) was the subject of further analysis.

Several assays were performed to confirm that the murine monoclonal antibody mAb13.2 binds with high affinity and specificity to human IL-13. First, Biacore analysis confirmed that mAb13.2 had a rapid on-rate, slow off-rate, and high affinity for binding to human IL-13 (FIG. 4).

ELISA assays showed that mAb13.2 bound to all forms of human IL-13 tested, including native IL-13 derived from cord blood T cells (FIG. 5). To perform the assays with recombinant human IL-13, ELISA plates were coated with anti-FLAG M2 antibody. The binding of recombinant FLAG-tagged human IL-13 was detected with biotinylated mAb13.2 and streptavidin-peroxidase. This binding could be competed with native human IL-13 isolated from mitogen activated, TH2-skewed, cord blood mononuclear cells and with recombinant human IL-13 (FIG. 5). Recombinant murine IL-13 could not compete for binding with mAb13.2. Unlabeled mAb13.2 and unlabeled mAb13.2 Fab were also able to compete for binding to the flag-tagged IL-13 with biotinylated mAb13.2 (FIG. 11A). The IL-13 specific nonneutralizing monoclonal antibody mAb13.8 could not compete with biotinylated mAb13.2 binding.

The ability of mAb13.2 to neutralize IL-13 bioactivity *in vitro* was confirmed using a TF1 bioassay, human peripheral blood monocytes, and human peripheral blood B cells. In the presence of suboptimal concentrations of IL-13, the proliferation of cells of the human erythroleukemic TF1 cell line can be made IL-13-dependent. The TF1 cell line was starved for cytokine, then exposed to a suboptimal concentration (3 ng/mL) of recombinant human IL-13 in the presence of varying concentrations of purified mouse mAb13.2 or the soluble inhibitor rhuIL-13Rα2. Cells were incubated for three days, and ^{3}H-thymidine incorporation over the final four hours was determined by liquid scintillation counting. At suboptimal IL-13 concentrations (3 ng/mL), mAb13.2 caused a dose-dependant inhibition of TF1 proliferation (FIG. 6 and FIG. 12A). The IC_{50} for this effect, 250 pM, is comparable to the IC_{50} of rhuIL-13Rα2. The mAb13.2 Fab also inhibited CD23 expression human PBMCs.

Human PBMCs respond to IL-13 or IL-4 by increasing cell-surface expression of low affinity IgE receptor (CD23) in a dose-dependent manner (see FIG. 7A). Monocytes ($CD11b^{+}$) were therefore used to confirm the ability of mAb13.2 to neutralize IL-13 bioactivity. $CD11b^{+}$ monocytes were treated for 12 hours with 1 ng/mL recombinant human IL-13 (FIG. 7B) or IL-4 (FIG. 7C) in the presence of the indicated concentration of purified mouse mAb13.2. Cells were then harvested and stained with CyChrome-labeled anti-CD11b antibodies and PE-labeled anti-CD23 antibodies. Labeling was detected by flow cytometry. The mAb13.2 inhibited IL-13-

induced CD23 expression (FIG. 7B; see also FIG. 12B), but did not inhibit IL-4-induced CD23 expression (FIG. 7C).

The effects of mAb13.2 were also tested in a model of IL-13-induced IgE production by human peripheral blood B cells. In response to IL-13 and the T cell mitogen, phytohemaglutinin (PHA), human B cells undergo an Ig isotype switch recombination to IgE, resulting in higher IgE levels in culture. This effect can be seen as an increased frequency of IgE-producing B cells. To examine the effect of mAb13.2 on IL-13-dependent IgE production in B cells, PBMCs from a healthy donor were cultured in microtiter wells in the presence of autologous irradiated PBMC as feeders, and stimulated with PHA and IL-13. After 3 weeks, each well was assayed for IgE by ELISA. PHA + IL-13 increased the frequency of IgE-producing B cell clones. This effect was inhibited by mAb13.2, but not by mAb13.8 (binds IL-13 but does not neutralize), or by irrelevant mouse IgG.mAb13.2 efficiently blocked this effect of IL-13 on cultured B cells (FIG. 8).

Finally, the ability of mAb13.2 to block an early cellular response to IL-13 was tested by examining effects on signal transducer and activator of transcription (STAT) 6 phosphorylation. Upon IL-13 interaction with its cell surface receptor, STAT6 dimerizes, becomes phosphorylated, and translocates from the cytoplasm to the nucleus, where it activates transcription of cytokine-responsive genes (Murata *et al., J. Biol. Chem.* 270:30829-36, 1995). Specific antibodies against phosphorylated STAT6 can detect this activation by Western blot or flow cytometry within 30 min of IL-13 exposure. To test the effect of mAb13.2 on IL-13 dependent STAT6 phosphorylation, cells of the HT-29 human epithelial cell line were treated with the indicated concentration of IL-13 for 30 minutes at 37°C. Phospho-STAT6 was detected in cell lysates by Western blot (FIG. 9A) or by flow cytometry (FIGs. 9B and 9C). In the experiment illustrated in FIG. 9B, cells were treated with a saturating concentration of IL-13 for 30 minutes at 37°C and then fixed, permeabilized, and stained with an Alexa-Fluor 488-labeled mAb against phospho-STAT6. In the experiment illustrated in FIG. 9C, cells were treated with a suboptimal concentration of IL-13 in the presence or absence of an antibody, fixed and stained as described above. Flow cytometry results revealed that mAb13.2 blocked STAT6 phosphorylation, whereas mAb13.8 and the control mouse IgG1 had no effect.

Example 2: Murine monoclonal antibody mAb13.2 neutralizes IL-13 bioactivity *in vivo*. The ability of mouse mAb13.2 to neutralize IL-13 activity *in vivo* was tested using a model of antigen-induced airway inflammation in Cynomolgus monkeys naturally allergic to *Ascaris suum*. In this model, challenge of an allergic monkey with *Ascaris suum* antigen results in an influx of inflammatory cells, especially eosinophils, into the airways. To test the ability of mAb13.2 to prevent this influx of cells, the antibody was administered 24 hours prior to challenge with *Ascaris suum* antigen. On the day of challenge, a baseline lavage sample was taken from the left lung. The antigen was then instilled intratracheally into the right lung. Twenty-four hours later, the right lung was lavaged, and the bronchial alveolar lavage (BAL) fluid from animals treated intravenously with 8 mg/kg ascites purified mAb13.2 were compared to BAL fluid from untreated animals. Eosinophil counts increased in 4 of 5 untreated animals following challenge, as compared to 1 of 6 animals treated with mAb13.2 (FIG. 10). The percent BAL eosinophils was significantly increased for the untreated group ($p<0.02$), but not for the antibody-treated group. These results confirmed that mAb13.2 effectively prevents airway eosinophilia in allergic animals challenged with an allergen.

The average serum half-life of mouse mAb13.2 was less than one week in the monkeys. At the 3-month time point, when all traces of mAb13.2 would have been gone from the serum, mAb13.2-treated animals were rechallenged with *Ascaris suum* to confirm the *Ascaris* responsiveness of those individuals. Two of six monkeys in the treated group were found to be nonresponders.

Example 3: Murine monoclonal antibody mAb13.2 binds to a region of IL-13 that normally binds to IL-4Rα. IL-13 bioactivity is mediated through a receptor complex consisting of the IL-13Rα1 and IL-4Rα chains. The cytokine first undergoes a relatively low affinity interaction with IL-13Rα1 on the surface of cells. This complex then recruits IL-4Rα to form the high affinity receptor (Zurawski *et al.*, *EMBO J.* 12:2663, 1993; Zurawski *et al.*, *J. Biol. Chem.* 270:23869, 1995). Signaling through the IL-4Rα chain involves phosphorylation of STAT6, which can be monitored as one of the earliest cellular responses to IL-13 (Murata *et al.*, *J. Biol. Chem.* 270:30829-36, 1995). Several approaches, such as epitope mapping, X-ray crystallography, and further Biacore analysis, were used to elucidate the interaction

between murine mAb13.2 antibody and human IL-13, and further determine the basis for the IL-13 neutralizing effects of this antibody.

Epitope mapping and X-ray crystallography analysis indicated that mAb13.2 binds to the C-terminal region of IL-13 helix C, *i.e.*, the IL-4R binding region (see below). To confirm this analysis, the interaction between mAb13.2 and IL-13 was analyzed with a Biacore chip. This analysis was done in several formats. First, IL-4R was bound to the Biacore chip, and a complex of IL-13 prebound to IL-13Rα1 was flowed over the chip. In the absence of mAb13.2, formation of a tri-molecular complex could be demonstrated. However, addition of mAb13.2 to the mixture of IL-13 prebound to IL-13Rα1 prevented binding to IL-4R on the chip. Second, mAb13.2 was immobilized on the chip and bound IL-13 was added in solution phase. Although IL-13Rα1 was found to interact with the bound IL-13, no interaction of IL-4R with bound IL-13 was detected. Third, it was demonstrated that mAb13.2 could bind to IL-13 that was bound to IL-13Rα1-Fc or IL-13Rα1 monomer immobilized on the chip. These observations indicate that mAb13.2 does not inhibit IL-13 interaction with IL-13Rα1 but disrupts the interaction of IL-13Rα1 with IL-4Rα. This disruption is thought to prevent formation of the IL-13 signaling complex. These observations provided a model for the neutralization activity of this antibody.

The *in vitro* demonstration of a complex of mAb13.2 with IL-13 and IL-13Rα1 suggests that mAb13.2 could potentially be bound to receptor-associated IL-13 at the cell surface. In order to determine whether cell-bound mAb13.2 could be detected under conditions of saturating receptor-bound IL-13, the HT-29 human epithelial cell line was loaded with IL-13 at 4°C and tested for antibody binding. No cell-bound mAb could be detected by flow cytometry. This observation, together with the demonstration that mAb13.2 is a potent neutralizer of IL-13 bioactivity, indicated that normal functioning of the IL-13 receptor is disrupted by mAb13.2.

Example 4: Crystal structure of anti-IL-13 antibody mAb13.2 Fab fragment.

Monoclonal antibody mAb13.2 from mouse ascites was purified using a Protein A affinity column. The mouse ascites was diluted 2X with Protein A binding buffer (50mM Tris-HCl, 500mM NaCl, pH 8.0) and filtered through a 0.2 mm filter unit. The filtered solution was applied to a Poros Protein A column (Applied Biosystems, Framingham, MA) equilibrated with the binding buffer at 4°C. The column was

washed with the binding buffer, and the IgG was eluted using 100 mM Glycine (pH 3.0). The eluted IgG was neutralized immediately with 1M Tris-HCl at pH 8.0.

The Fab fragment was prepared by digesting the IL-13 monoclonal IgG with activated papain (Sigma, St. Louis, MO). Papain was activated by diluting the stock enzyme solution with the digestion buffer (50mM Tris-HCl, 50mM NaCl, 20mM EDTA and 20 mM Cysteine, pH 7.5) on ice to give a final papain concentration of 1mg/mL. Cleavage of IgG was performed by incubation with activated papain at a ratio of 100:1 w/w in papain digestion buffer for 7-8 hours at 37°C. The reaction was stopped by dialysis in 50 mM Tris-HCl (pH 7.5) overnight at 4°C. The dialyzed solution was loaded onto a tandem Poros HS/Protein A column equilibrated with 50 mM Tris-HCl (pH 7.5) at 4°C to remove the papain and the Fc fragment. The flow-through of the tandem columns containing the Fab fragment was then loaded onto a hydroxylapatite column (Bio-Rad, Hercules, CA) equilibrated with 1 mM Sodium Phosphate and 20 mM Tris-HCl, pH 7.5, and eluted with a 1 mM to 125 mM Sodium Phosphate gradient at 25°C. The eluted Fab fragment solution was dialyzed overnight in 50 mM Tris-HCl (pH 8.0) at 4°C. After dialysis, the solution was loaded onto a Poros HQ column equilibrated with 50 mM Tris-HCl (pH 8.0). The flow-through was collected and ammonium sulfate was adjusted to a final concentration of 1.5 M before loading onto a Polypropyl Aspartamide column (Nest Group, Southborough, MA). The Fab fragment was eluted from the column with a 1.5 to 0 M ammonium sulfate gradient at 25°C. The protein was dialyzed in 50 mM Tris-HCl (pH 8.0) at 4°C.

The isolated mAb13.2 antibody and mAb13.2 Fab fragment were tested for their ability to inhibit IL-13 bioactivity. In one assay, purified mAb13.2 and mAb13.2 Fab fragment were tested for their ability to compete for binding with biotinylated mAb13.2 in an ELISA assay. ELISA plates were coated with anti-FLAG M2 antibody. The binding of FLAG-human IL-13 was detected with biotinylated mAb13.2 and streptavidin-peroxidase. Both the intact antibody and the Fab fragment were able to compete for binding, while the IL-13-specific nonneutralizing antibody mAb13.8 could not compete for binding (FIGs. 11A and 11B).

In other assays, purified mAb13.2 and mAb13.2 Fab fragment were tested for their ability to inhibit IL-13-dependent TF1 cell proliferation and IL-13-dependent CD23 expression on PBMCs. TF1 cells were incubated with 3 ng/mL recombinant human IL-13 as described in Example 1. The cells were treated with increasing

concentrations of purified mAb13.2 or mAb13.2 Fab, and cell proliferation was monitored as described. Both the intact antibody and the Fab fragment inhibited IL-13-dependent TF1 cell proliferation (FIG. 12A). To test the effect of the isolated proteins on CD23 expression, PBMCs were incubated with 1 ng/mL recombinant human IL-13 as described in Example 1. The monocytes were treated with increasing concentrations of mAb13.2 or mAb13.2 Fab, and CD23 expression was monitored by flow cytometry as described above. The purified intact antibody and the purified Fab fragment were each capable of inhibiting IL-13-dependent CD23 expression (FIG. 12B).

For crystallization, purified mAb13.2 Fab was prepared at a concentration of 12.6 mg/mL in a solution of 50 mM Tris (pH 8.0) and 50 mM NaCl. One microliter of protein solution was mixed with 1 μl of crystallization solution (20% PEG 3350, 200 mM K_2SO_4) (Hampton Research, Aliso Viejo, CA), and the crystals formed at about 18°C by the hanging drop method of vapor diffusion.

Data from crystals for the mAb13.2 Fab fragment were collected on beamline 5.0.2 at the Advanced Light Source (ALS) (Berkley, CA) using an ADSC Quantum-4 CCD detector. A single crystal, vitrified at -180°C, was used for each data set. The data were processed using DENZO and Scalepack (Otwinowski and Minor, *Methods Enzymol.* 276: 307-326, 1997) and the statistics from data collection and data refinement are shown in Tables 1 and 2 below, respectively.

Table 1. Statistics for Data Collection and Phase Determination

Data Collection	mAb13.2 Fab	mAb13.2/IL-13 Fab
Crystal system	Orthorhombic	Cubic
Space group	$P2_12_12_1$	$P2_13$
Unit cell dimensions	a=54.442, b=97.961, c=108.469, $\alpha=\beta=\gamma=90.0°$	a=b=c=125.261, $\alpha=\beta=\gamma=90.0°$
Data collection temperature	-180°C	-180°C
Number of crystals	1	1
Radiation Source	ALS, Berkeley, CA	ALS, Berkeley, CA
Wavelength (Å)	λ = 1.0 Å	λ = 1.0 Å
Resolution range(Å)	50-2.8 Å	50-1.8 Å
Maximum resolution (Å)	2.8 Å	1.8 Å
R_{merge}[a](%)	8.2% (38.4%)	6.7% (48.6%)
% complete	100% (100%)	99.9% (99.0%)
total reflections	98,254	561,539
unique reflections	14,903	57,656
$I/\sigma(I)$	23.3 (4.8)	26.6 (2.8)

[a] $R_{merge} = \sum |I_h - \langle I_h \rangle| / \sum I_h$, where $\langle I_h \rangle$ is the average intensity over symmetry equivalents. Number in parentheses reflects statistics for the last shell.

Table 2. Structure Refinement Statistics

Data Collection	mAb13.2Fab	mAb13.2 Fab/IL-13
Model for molecular replacement	2E8 Fab (12E8.pdb)	mAb13.2 Fab; soln. structure of IL-13[b]
Maximum Resolution (Å)	2.8 Å	1.8 Å
R_{work}[a] (%)	25.9 %	20.3 %
R_{free} (%)	30.7 %	23.5 %

[a] $R_{work} = \sum||F_{obs}| - |F_{calc}|| / \sum|F_{obs}|$, R_{free} is equivalent to R_{work} but calculated for a randomly chosen 5% of reflections that are omitted from the refinement process.

[b] Moy *et al.*, *J. Mol. Biol.* 310:219-230, 2001.

The structure of mAb13.2 Fab was solved by molecular replacement using the program AMORE (Navaza, *Acta Crystallogr.* A50:157-163, 1994). The structure of the monoclonal 2E8 Fab antibody fragment (PDB code 12E8) was used as the probe. Prior to refinement, 5% of the data were randomly selected and designated as an R_{free} test set to monitor the progress of the refinement. The structure of the mAb13.2 Fab was then rebuilt within QUANTA (Accelrys, San Diego, CA) utilizing a series of omit maps. Following six cycles of refinement with CNS (Brunger *et al.*, *Acta Crystallogr.* D54: 905-921, 1998) and rebuilding using QUANTA, the refinement converged with a model that contained the mAb13.2 Fab and 41 water molecules at

an R_{cryst} of 25.9% and an R_{free} of 30.7%. The structure refinement statistics are shown in Table 2. The crystal structure coordinates are shown in Table 10.

Example 5. Crystal structure of mAb13.2 Fab/IL-13 Complex. Recombinant IL-13 (Swiss-Prot Accession Number P35225) and mAb13.2 Fab were purified for crystallization. Recombinant IL-13 was purified as follows. *E. coli* K12 strain GI934 was used for expression of Human IL-13. GI934 is an *ilvG* derivative of GI724 (LaVallie *et al.*, *Bio/Technology* 11:187-193, 1993) that contains specific deletions in the two *E. coli* proteases *ompT* and *ompP*. Specifically, this strain contains the bacteriophage l repressor (cI) gene stably integrated into the chromosomal ampC locus. The cI gene is transcriptionally regulated by a synthetic *Salmonella typhimurium* trp promoter. *E.coli* expression vector pAL-981, a derivative of pAL-781 (Collins-Racie, *et al.*, *Bio/Technology* 13:982-987, 1995), was used as the basis for construction of a Human IL-13 expression vector.

A cDNA of the human IL-13 gene was generated from synthetic oligonucleotide duplexes designed to possess silent changes from human IL-13 cDNA (Accession number NM_002188) that was optimized for *E.coli* codon usage and increased AT content at the 5' end of the gene. Three sets of complementary duplexes of synthetic oligonucleotides corresponding to amino acids Gly21 to Asn132 of the human IL-13 amino acid (SEQ ID NO:3) (FIG. 2A) were used to construct the mature region of human IL-13, which is the amino acid sequence of processed IL-13 (SEQ ID NO:4). The *E. coli* optimized complementary oligonucleotides of duplex 1 were

5'-TATGGGTCCAGTTCCACCATCTACTGCTCTGCGTGAACTGATTGAAGAACTGGT
TAACATCACCCAGAACCAGAAAGCTCCGCTGTGTAACGGTTCCATGGTTTGGTCCAT
CAACCTG-3' (SEQ ID NO:6) with complement

5'-CAGCGGTCAGGTTGATGGACCAAACCATGGAACCGTTACACAGCGGAGCTTTCTG
GTTCTGGGTGATGTTAACCAGTTCTTCAATCAGTTCACGCAGAGCAGTAGATGGTGG
AACTGGACCCA-3 (SEQ ID NO:7); duplex 2 were

5'-ACCGCTGGTATGTACTGTGCAGCTCTGGAATCCCTGATCAACGTTTCTGGTTGC
TCTGCTATCGAAAAAACCCAGCGTATGCTGTCTGGTTTCTGCCCGCACAAAGTTTCC
GCTGGTCAG-3' (SEQ ID NO:8) with complement

5'-GAGGAGAACTGACCAGCGGAAACTTTGTGCGGGCAGAAACCAGACAGCATACGC
TGGGTTTTTTCGATAGCAGAGCAACCAGAAACGTTGATCAGGGATTCCAGAGCTGCA

CAGTACATAC-3' (SEQ ID NO:9); and duplex 3 were 5'-TTCTCCTCTCTGCACGTTCGTGACACCAAAATCGAAGTTGCTCAGTTCGTAAAA GACCTGCTGCTGCACCTGAAAAAACTGTTCCGTGAAGGTCGTTTCAACTAATAAT-3' (SEQ ID NO:10) with complement 5'-CTAGATTATTAGTTGAAACGACCTTCACGGAACAGTTTTTTCAGGTGCAGCAGC AGGTCTTTTACGAACTGAGCAACTTCGATTTTGGTGTCACGAACGTGCAGA-3' (SEQ ID NO:11).

The complement (bottom) strand of the first and second duplexes and the top strand of the second and third duplexes were phosphorylated independently. The complementary strands were combined, and each duplex mix was heated to 90°C and then slowly cooled to allow annealing of the duplexes. The first and last duplexes respectively encoded the restriction endonucleases NdeI and XbaI to allow for cloning into an NdeI, XbaI digested and gel purified expression vector pAL-981. All restriction digests, enzymatic phosphorylation of oligonucleotides, DNA fragment isolations and ligations were carried out as described in Sambrook *et al.*, 1989. "Molecular Cloning, a Laboratory Manual, second edition," Cold Spring Harbor Laboratory Press, Cold Spring Harbor, New York. Ligation mixtures were transformed into electrocompetent GI934 as described (LaVallie *et al., Methods Mol Biol.* 205:119-140, 2003). Ligation of the three sets of oligonucleotide duplexes into pAL-981 created plasmid pALHIL13-981. All synthetic oligonucleotides were sequence confirmed after cloning into the expression vector.

The resulting plasmid pALHIL13-981 was transformed into GI934. Optimal growth temperature of the culture for production of human IL-13 from plasmid pALHIL13-981 was determined empirically. Fermentor medium consisted of 1% casamino-acids, 1.75% w/v glucose, 50mM KH_2PO_4, 15mM $(NH_4)_2SO_4$, 30mM Na_3.citrate.$2H_20$, 20mM $MgSO_4$, 100μg/ml ampicillin, DM trace metals (300μM $FeCl_3$, 29μM $ZnCl_3$, 36μM $CoCl_2$, 25μM Na_2MoO_4, 20μM $CaCl_2$, 22μM $CuCl_2$, 24μM H_3BO_3), and was adjusted to pH 7 with NH_4OH. A 10L fermentor was inoculated to A_{550} 0.00005 with a fresh culture of GI934 containing pALHIL13-981 grown in Fermentor medium at 30°C. The fermentor culture was grown at 30°C to A_{550} of 1.2, then the temperature was adjusted to 37°C, and the culture was allowed to grow to A_{550} of 7.5. Induction of protein synthesis from the pL promoter was initiated

and the culture with the addition of tryptophan to 500μg/ml. The culture was grown at 37°C for 4.25 hours before harvesting the cells by centrifugation. The sequence of the expression vector is shown in FIG. 13 (SEQ ID NO:5).

The protein was essentially completely insoluble. Cells were broken with a microfluidizer and insoluble IL-13 was collected and dissolved at about 2 mg/mL in 50 mM Ches (pH 9), 6 M Guanidine-HCl, 1 mM EDTA, 20 mM DTT. The solution was diluted 20-fold into 50 mM Ches (pH 9), 3 M guanidine-HCl, 100 mM NaCl, 1 mM oxidized glutathione, and dialyzed twice against ten volumes of 20 mM Mes (pH 6). Following clarification by centrifugation, IL-13 was adsorbed to SP-Sepharose and eluted with a gradient of NaCl in Mes buffer. Final purification was by size-exclusion chromatography in 40 mM sodium phosphate, 40 mM NaCl on Superdex 75.

The mAb13.2 Fab was purified as described in Example 4.

The Fab:IL-13 complex was prepared by combining the two in a molar ratio of about 1:1. IL-13 (50 μM in 40 mM MES and 40 mM NaCl, pH 6.0) and mAb13.2 Fab (50 μM in 50 mM Tris.HCl, pH 8.0) were mixed together to give a final complex concentration of 50 μM. The complex was further purified by a Superdex 75 size exclusion column (Amersham Biosciences, Piscataway, NJ) equilibrated with 50 mM Tris-HCl and 300 mM NaCl, pH 8.0, at 25°C. The purified complex was dialyzed in 50 mM Tris-HCl and 50 mM NaCl, pH 8.0, before setting up the crystallization.

For crystallization, purified mAb13.2 Fab/Il-13 complex was prepared at a concentration of 11.3 mg/mL in a solution of 50 mM Tris (pH 8.0) and 50 mM NaCl. One microliter of protein solution was mixed with 1 μl of crystallization solution (20% PEG 3350, 50 mM ZnOAc) (Hampton Research, Aliso Viejo, CA). The crystals formed at 18°C by vapor diffusion by the hanging drop method.

Data from the crystal of the mAb13.2 Fab/IL-13 complex were collected on beamline 5.0.2 at the ALS (Berkley, CA) using an ADSC Quantum-4 CCD detector. A single crystal, vitrified at -180°C, was used for the data set. The data were processed using DENZO and Scalepack (Otwinowski and Minor, *Methods Enzymol.* 276: 307-326, 1997). The statistics from data refinement are shown in Table 2. The crystal sructure coordinates are shown in Table 11.

Crystals of the binary mAb13.2Fab/IL-13 complex diffracted to 1.8 Å using synchrotron radiation. The structure of the complex was solved by molecular

replacement using the program AMORE, and using the crystal structure of the mAb13.2 Fab (described in Example 4) as the probe. Prior to refinement, 5% of the data were randomly selected and designated as an R_{free} test to monitor the progress of the refinement. This structure of the mAb13.2 Fab was then rebuilt within QUANTA using a series of omit maps. During this process, extra density was observed near the hypervariable regions, and these regions sharpened after each cycle of rebuilding. After the Fab fragment had been rebuilt, the NMR structure of IL-13 (Moy *et al., J. Mol. Biol.* 310:219-230, 2001) was rotated into the density adjacent to the hypervariable regions. Following three cycles of refinement with CNS (Accelrys, San Diego, CA) and rebuilding within QUANTA, the refinement converged with a model that contained one molecule of the mAb13.2 Fab, one molecule of IL-13, one acetate molecule, three zinc ions, and 465 water molecules at an R_{cryst} of 20.3% and R_{free} of 23.5%. The refinement statistics are shown in Table 2.

In the mAb13.2/IL-13 crystalline complex, residues 1-211 of the Fab light chain were visible, while residues 212, 213, and 214 were not observed in the density. For the heavy chain, residues 1-127 and 133-210 were modeled into the density, and no density was observed for residues 128 to 132. For IL-13, residues 7-21, 26-78, and 81-109 were visible and residues 1-6, 22-25, 79, and 80 were disordered. Several residues modeled as smaller residues due to inadequate electron density X-ray experiments (see Table 5).

There were three zinc molecules from the crystallization buffer that were found bound in this structure. None of them were involved in interactions between the IL-13 and Fab molecules. Two of the zinc molecules were involved in contacts between molecules in the asymmetric unit and symmetry related copies of the proteins, and thus they were important for crystallization of this complex. Zinc1 was coordinated to Fab light chain residues Glu27 and Glu97, and residues Glu189 and His193 of a symmetry related copy of the light chain (amino acids numbered according to SEQ ID NO:1 (FIG. 1A)). Zinc2 was coordinated to IL-13 residues His84 and Asp87, and residues Asp98 and His102 of a symmetry related copy of IL-13. Zinc3 was coordinated to IL-13 residues Glu12 and Glu15 with water molecules as other ligands (amino acids numbered according to SEQ ID NO:4 (FIG. 2B)).

The residues of IL-13 interacting with the mAb13.2 Fab fragment were located at

the C-terminal end of helix C (residues 68-74). FIG. 3 illustrates the interaction of the C alpha helix of IL-13 with the CDR loops of the antibody. Hydrogen bond interactions were observed to exist between the Fab and IL-13 residues Glu49, Asn53, Gly69, Pro72, His73, Lys74, and Arg86. The N-terminal tip of helix A was within van der Waals distances of the Fab fragment. These interactions are summarized in Tables 3 and 4.

Table 3. H-bond Interactions between IL-13 and Fab 13.2

IL-13[a]			Fab 13.2				
Residue		atom	Residue	Chothia[b]	SEQ ID[c]	Atom	Distance
Glu	49I	OE1	Asn	30AL	31L	ND2	2.87Å
Glu	49I	OE2	Tyr	98H	101H	OH	2.69
Glu	49I	OE2	Tyr	99H	102H	OH	2.54
Asn	53I	OD1	Lys	30DL	34L	NZ	2.74
Gly	69I	O	Ser	53H	53H	N	2.91
Pro	72I	O	Tyr	98H	101H	N	3.10
His	73I	ND1	Asp	94L	98L	OD1	2.87
His	73I	NE2	Ser	50H	50H	OG	2.75
Lys	74I	NZ	Asn	30AL	31L	OD1	2.95
Lys	74I	NZ	Asn	92L	96L	OD1	2.61
Arg	86I	NH1	Tyr	30BL	32L	OH	3.16
Arg	86I	NH2	Tyr	30BL	32L	OH	2.93

[a]Amino acid residues are numbered according to the processed form of IL-13 (SEQ ID NO:4). "I" indicates amino acid of IL-13.

[b]Amino acid residues correspond to SEQ ID NO:1 (for light chain residues, "L") or SEQ ID NO:2 (for heavy chain residues, "H"), and are numbered according to the Chothia numbering system (Al-Lazikani *et al., Jour. Mol. Biol.* 273:927-948, 1997).

[c]Amino acid residues are numbered according to the numbering of SEQ ID NO:1 (for light chain residues, "L") or SEQ ID NO:2 (for heavy chain residues, "H").

Table 4. van der Waals Type Interactions between IL-13 and Fab 13.2

IL-13 Residue[a]		Fab 13.2 Residue		Chothia[b]	SEQ ID[c]	CDR
Ser	7I	Ile		30H	30H	CDR-H1
Thr	8I	Ile		30H	30H	CDR-H1
Ala	9I	Ile		30H	30H	CDR-H1
Ala	9I	Ser		53H	53H	CDR-H2
Glu	12I	Ile		30H	30H	CDR-H1
Glu	12I	Ser		31H	31H	CDR-H1
Leu	48I	Tyr		98H	101H	CDR-H3
Glu	49I	Tyr		98H	101H	CDR-H3
Glu	49I	Asn		30AL	31L	CDR-L1
Glu	49I	Tyr		99H	102H	CDR-H3
Ile	52I	Tyr		99H	102H	CDR-H3
Ile	52I	Tyr		99H	102H	CDR-H3
Ile	52I	Tyr		99H	102H	CDR-H3
Ile	52I	Arg		50L	54L	CDR-L2
Ile	52I	Tyr		99H	102H	CDR-H3
Ile	52I	Lys		30DL	34L	CDR-L1
Asn	53I	Lys		30DL	34L	CDR-L1
Asn	53I	Lys		30DL	34L	CDR-L1
Asn	53I	Lys		30DL	34L	CDR-L1
Arg	65I	Phe		100H	103H	CDR-H3
Arg	65I	Asp		96H	99H	CDR-H3
Met	66I	Ser		31H	31H	CDR-H1
Ser	68I	Asp		96H	99H	CDR-H3
Ser	68I	Phe		100H	103H	CDR-H3
Gly	69I	Ser		31H	31H	CDR-H1
Gly	69I	Ala		33H	33H	CDR-H1
Gly	69I	Ser		53H	53H	CDR-H2
Gly	69I	Ser		52H	52H	CDR-H2
Phe	70I	Ser		53H	53H	CDR-H2
Phe	70I	Ser		52H	52H	CDR-H2
Cys	71I	Tyr		98H	101H	CDR-H3
Pro	72I	Ala		33H	33H	CDR-H1
Pro	72I	Leu		95H	98H	CDR-H3
Pro	72I	Ser		52H	52H	CDR-H2
Pro	72I	Tyr		58H	58H	CDR-H2
Pro	72I	Tyr		98H	101H	CDR-H3
Pro	72I	Gly		97H	100H	CDR-H3
Pro	72I	Trp		96L	100L	CDR-L3
His	73I	Asp		94L	98L	CDR-L3
His	73I	Trp		96L	100L	CDR-L3
His	73I	Trp		47H	47H	
His	73I	Leu		95H	98H	CDR-H3
His	73I	Tyr	58H		58H	CDR-H2
His	73I	Ser	50H		50H	CDR-H2
His	73I	Tyr	98H		101H	CDR-H3

Lys	74I	Tyr	98H	101H	CDR-H3
Lys	74I	Asn	30AL	31L	CDR-L1
Lys	74I	Asn	92L	96L	CDR-L3
Arg	86I	Tyr	30BL	32L	CDR-L1

[a]Amino acid residues are numbered according to the processed form of IL-13 (SEQ ID NO:4). "I" indicates amino acid of IL-13.
[b]Amino acid residues correspond to SEQ ID NO:1 (for light chain residues, "L") or SEQ ID NO:2 (for heavy chain residues, "H"), and are numbered according to the Chothia numbering system (Al-Lazikani *et al., Jour. Mol. Biol.* 273:927-948, 1997). See Tables 6 and 7.
[c]Amino acid residues are numbered according to the numbering of SEQ ID NO:1 (for light chain residues, "L") or SEQ ID NO:2 (for heavy chain residues, "H").

Table 5. Residues mis-modeled due to inadequate electron density

Coordinates	Protein[a]	Chothia[b]	SEQ ID[c]	Sequence[c]	Modeled As
Table 11	LC	45	49	Lys	Ala
Table 11	HC	3	3	Lys	Ala
Table 11	HC	105	110	Gln	Ala
Table 11	HC	171	176	Glu	Ala
Table 11	HC	177	182	Leu	Ala
Table 11	HC	205	210	Lys	Ala
Table 11	I		89	Lys	Ala
Table 11	I		94	Gln	Ala
Table 11	I		97	Lys	Ala
Table 11	I		105	Lys	Ala
Table 11	I		108	Arg	Ala
Table 11	I		109	Glu	Ala

[a] "HC" is heavy chain (SEQ ID NO:2); "LC"is light chain (SEQ ID NO:1); "I" is IL-13 processed (SEQ ID NO:4).
[b]Amino acid residues correspond to SEQ ID NO:1 (for light chain residues, "LC") or SEQ ID NO:2 (for heavy chain residues, "HC"), and are numbered according to the Chothia numbering system (Al-Lazikani *et al., Jour. Mol. Biol.* 273:927-948, 1997). See Tables 6 and 7.
[c]Amino acid residues are numbered and identified according to the numbering of SEQ ID NO:1 (for light chain residues, "LC"), SEQ ID NO:2 (for heavy chain residues, "HC"), or SEQ ID NO:4 (for residues of the IL-13 processed polypeptide, "I").

FIG. 3 is a ribbon diagram illustrating the co-crystal structure of mAb13.2 Fab with human IL-13. The light chain of mAb13.2 Fab is shown in dark shading, and the heavy chain in light shading. The IL-13 structure is shown at right. The figure depicts the interaction of the C alpha helix of IL-13 with the CDR loops of the antibody. The major residues of mAb13.2 heavy chain that make hydrogen bond contacts with IL-13 are SER50 (CDR2), SER53 (CDR2), TYR101 (CDR3), and

TYR102 (CDR3). The major residues of mAb13.2 heavy chain that make van der Waals contacts with IL-13 are ILE30 (CDR1), SER31 (CDR1), ALA33 (CDR1), TRP47, SER50 (CDR2), SER52 (CDR2), SER53 (CDR2), TYR58 (CDR2), LEU98 (CDR3), ASP99 (CDR3), GLY100 (CDR3), TYR101 (CDR3), TYR102 (CDR3), and PHE103 (CDR3) (see Table 4; amino acids numbered according the numbering of SEQ ID NO:2 (FIG. 1B)).

According to the amino acid numbering of SEQ ID NO:1 (FIG. 1A), the major residues of mAb13.2 light chain that make hydrogen bond contacts with IL-13 are ASN31 (CDR1), TYR32 (CDR1), LYS34 (CDR1), ASN96 (CDR3), and ASP98 (CDR3). The major residues of mAb13.2 light chain that make van der Waals contacts with IL-13 are ASN31 (CDR1), TYR32 (CDR1), LYS34 (CDR1), ARG54 (CDR2), ASN96 (CDR3), ASP98 (CDR3), and TRP100 (CDR3) (see Table 4).

Various numbering schemes have evolved to describe the amino acid residues of the heavy and light chain polypeptides of an antibody. The Kabat and Chothia schemes number the amino acid residues linearly accept in the defined CDR region of the polypeptide, where insertions are noted. The Kabat system (Kabat *et al.*, NIH Publ. No. 91-3242, 5th ed., vols. 1-3, Dept. of Health and Human Services, 1991) defines the location of the heavy and light chain CDRs by sequence variability, while the Chothia system (Al-Lazikani *et al., Jour. Mol. Biol.* 273:927-948, 1997) defines the location structurally by loop regions. Because of the different placement of the CDR insertions, the numbering of the amino acids in the heavy chain and light chain can vary between the two systems. The notation of amino acid insertions causes each of these numbering systems to deviate from the linear numbering. Tables 6 and 7 align the amino acid sequences of the light and heavy chains, respectively, of mAb13.2Fab according to these three different numbering schemes (Kabat, Chothia, and linear numbering).

Table 6. Amino acid sequence of the light chain of mAb13.2Fab according to the linear (SEQ ID NO:1), Chothia and Kabat numbering systems.[a]

Residue	Linear Sequence Number	Chothia Structure Number	Kabat Sequence Number
D	1	1	1
I	2	2	2
V	3	3	3
L	4	4	4
T	5	5	5
Q	6	6	6
S	7	7	7
P	8	8	8
A	9	9	9
S	10	10	10
L	11	11	11
A	12	12	12
V	13	13	13
S	14	14	14
L	15	15	15
G	16	16	16
Q	17	17	17
R	18	18	18
A	19	19	19
T	20	20	20
I	21	21	21
S	22	22	22
C	23	23	23
K	24	24	24
A	25	25	25
S	26	26	26
E	27	27	27
S	28	28	27A
V	29	29	27B
D	30	30	27C
N	31	30A	27D
Y	32	30B	28
G	33	30C	29
K	34	30D	30
S	35	31	31
L	36	32	32

M	37	33	33
H	38	34	34
W	39	35	35
Y	40	36	36
Q	41	37	37
Q	42	38	38
K	43	39	39
P	44	40	40
G	45	41	41
Q	46	42	42
S	47	43	43
P	48	44	44
K	49	45	45
L	50	46	46
L	51	47	47
I	52	48	48
Y	53	49	49
R	54	50	50
A	55	51	51
S	56	52	52
N	57	53	53
L	58	54	54
E	59	55	55
S	60	56	56
G	61	57	57
I	62	58	58
P	63	59	59
A	64	60	60
R	65	61	61
F	66	62	62
S	67	63	63
G	68	64	64
S	69	65	65
G	70	66	66
S	71	67	67
R	72	68	68
T	73	69	69
D	74	70	70
F	75	71	71
T	76	72	72
L	77	73	73
T	78	74	74
I	79	75	75
N	80	76	76

P	81	77	77
V	82	78	78
E	83	79	79
A	84	80	80
D	85	81	81
D	86	82	82
V	87	83	83
A	88	84	84
T	89	85	85
Y	90	86	86
Y	91	87	87
C	92	88	88
Q	93	89	89
Q	94	90	90
S	95	91	91
N	96	92	92
E	97	93	93
D	98	94	94
P	99	95	95
W	100	96	96
T	101	97	97
F	102	98	98
G	103	99	99
G	104	100	100
G	105	101	101
T	106	102	102
K	107	103	103
L	108	104	104
E	109	105	105
I	110	106	106
K	111	107	107
R	112	108	108
A	113	109	109
D	114	110	110
A	115	111	111
A	116	112	112
P	117	113	113
T	118	114	114
V	119	115	115
S	120	116	116
I	121	117	117
F	122	118	118
P	123	119	119
P	124	120	120

S	125	121	121
S	126	122	122
E	127	123	123
Q	128	124	124
L	129	125	125
T	130	126	126
S	131	127	127
G	132	128	128
G	133	129	129
A	134	130	130
S	135	131	131
V	136	132	132
V	137	133	133
C	138	134	134
F	139	135	135
L	140	136	136
N	141	137	137
N	142	138	138
F	143	139	139
Y	144	140	140
P	145	141	141
K	146	142	142
D	147	143	143
I	148	144	144
N	149	145	145
V	150	146	146
K	151	147	147
W	152	148	148
K	153	149	149
I	154	150	150
D	155	151	151
G	156	152	152
S	157	153	153
E	158	154	154
R	159	155	155
Q	160	156	156
N	161	157	157
G	162	158	158
V	163	159	159
L	164	160	160
N	165	161	161
S	166	162	162
W	167	163	163
T	168	164	164

D	169	165	165
Q	170	166	166
D	171	167	167
S	172	168	168
K	173	169	169
D	174	170	170
S	175	171	171
T	176	172	172
Y	177	173	173
S	178	174	174
M	179	175	175
S	180	176	176
S	181	177	177
T	182	178	178
L	183	179	179
T	184	180	180
L	185	181	181
T	186	182	182
K	187	183	183
D	188	184	184
E	189	185	185
Y	190	186	186
E	191	187	187
R	192	188	188
H	193	189	189
N	194	190	190
S	195	191	191
Y	196	192	192
T	197	193	193
C	198	194	194
E	199	195	195
A	200	196	196
T	201	197	197
H	202	198	198
K	203	199	199
T	204	200	200
S	205	201	201
T	206	202	202
S	207	203	203
P	208	204	204
I	209	205	205
V	210	206	206
K	211	207	207
S	212	208	208

F	213	209	209
N	214	210	210
R	215	211	211
N	216	212	212
E	217	213	213
C	218	214	214

[a]Bold font indicates an insertion in the linear sequence according to the Chothia or Kabat numbering system. Bold and underlined residue indicates an insertion as determined by X-ray data.

Table 7. Amino acid sequence of the heavy chain of mAb13.2Fab according to the linear (SEQ ID NO:2), Chothia and Kabat numbering systems.[a]

Residue	Linear Sequence Number	Chothia Structure Number	Kabat Sequence Number
E	1	1	1
V	2	2	2
K	3	3	3
L	4	4	4
V	5	5	5
E	6	6	6
S	7	7	7
G	8	8	8
G	9	9	9
G	10	10	10
L	11	11	11
V	12	12	12
K	13	13	13
P	14	14	14
G	15	15	15
G	16	16	16
S	17	17	17
L	18	18	18
K	19	19	19
L	20	20	20
S	21	21	21
C	22	22	22
A	23	23	23
A	24	24	24
S	25	25	25
G	26	26	26
F	27	27	27
T	28	28	28
F	29	29	29
I	30	30	30
S	31	31	31
Y	32	32	32
A	33	33	33
M	34	34	34

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S	35	35	35
W	36	36	36
V	37	37	37
R	38	38	38
Q	39	39	39
T	40	40	40
P	41	41	41
E	42	42	42
K	43	43	43
R	44	44	44
L	45	45	45
E	46	46	46
W	47	47	47
V	48	48	48
A	49	49	49
S	50	50	50
I	51	51	51
S	52	52	52
S	53	53	53
G	54	54	54
G	55	55	55
N	56	56	56
T	57	57	57
Y	58	58	58
Y	59	59	59
P	60	60	60
D	61	61	61
S	62	62	62
V	63	63	63
K	64	64	64
G	65	65	65
R	66	66	66

F	67	67	67
T	68	68	68
I	69	69	69
S	70	70	70
R	71	71	71
D	72	72	72
N	73	73	73
A	74	74	74
R	75	75	75
N	76	76	76
I	77	77	77
L	78	78	78
Y	79	79	79
L	80	80	80
Q	81	81	81
M	82	82	82
S	83	82A	82A
S	84	82B	82B
L	85	82C	82C
R	86	83	83
S	87	84	84
E	88	85	85
D	89	86	86
T	90	87	87
A	91	88	88
M	92	89	89
Y	93	90	90
Y	94	91	91
C	95	92	92
A	96	93	93
R	97	94	94
L	98	95	95

D	99	96	96
G	100	97	97
Y	101	98	98
Y	102	99	99
F	103	100	100
G	104	100A	100A
F	105	100B	100B
A	106	101	101
Y	107	102	102
W	108	103	103
G	109	104	104
Q	110	105	105
G	111	106	106
T	112	107	107
L	113	108	108
V	114	109	109
A	115	110	110
V	116	111	111
S	117	112	112
A	118	113	113
A	119	114	114
K	120	115	115
T	121	116	116
T	122	117	117
P	123	118	118
P	124	119	119
S	125	120	120
V	126	121	121
Y	127	122	122
P	128	123	123
L	129	124	124
A	130	125	125

P	131	126	126
G	132	127	127
S	133	128	128
A	134	129	129
A	135	130	130
Q	136	131	131
T	137	132	132
N	138	133	133
S	139	134	134
M	140	135	135
V	141	136	136
T	142	137	137
L	143	138	138
G	144	139	139
C	145	140	140
L	146	141	141
V	147	142	142
K	148	143	143
G	149	144	144
Y	150	145	145
F	151	146	146
P	152	147	147
E	153	148	148
P	154	149	149
V	155	150	150
T	156	151	151
V	157	152	152
T	158	153	153
W	159	154	154
N	160	155	155
S	161	156	156
G	162	157	157

S	163	158	158
L	164	159	159
S	165	160	160
S	166	161	161
G	167	162	162
V	168	163	163
H	169	164	164
T	170	165	165
F	171	166	166
P	172	167	167
A	173	168	168
V	174	169	169
L	175	170	170
E	176	171	171
S	177	172	172
D	178	173	173
L	179	174	174
Y	180	175	175
T	181	176	176
L	182	177	177
S	183	178	178
S	184	179	179
S	185	180	180
V	186	181	181
T	187	182	182
V	188	183	183
P	189	184	184
S	190	185	185
S	191	186	186
P	192	187	187
R	193	188	188
P	194	189	189

S	195	190	190
E	196	191	191
T	197	192	192
V	198	193	193
T	199	194	194
C	200	195	195
N	201	196	196
V	202	197	197
A	203	198	198
H	204	199	199
P	205	200	200
A	206	201	201
S	207	202	202
S	208	203	203
T	209	204	204
K	210	205	205
V	211	206	206
D	212	207	207
K	213	208	208
K	214	209	209
I	215	210	210

[a]Bold font indicates an insertion in the linear sequence according to the Chothia or Kabat numbering system. Bold and underlined residue indicates an insertion as determined by X-ray data.

Example 6. Crystal Structure of the Trimeric Complex of Interleukin-13, Il-13 receptor α1, and the Binding Domain of the Inhibitory antibody mAb13.2 Fab.

The extracellular domain (residues 27-342; see FIG. 14) of IL-13Rα1 was expressed with a 6xHis tag fused at the C-terminus (Aman *et al., J. Biol. Chem.* 271:29265-29270, 1996). Expression was performed in the yeast *Pichia pastoris*. The recombinant protein was purified to homogeneity by affinity chromatography over NiNTA-agarose (Qiagen) followed by anion exchange chromatography over

HiTrap Q Sepharose HP (Pharmacia, Amersham Pharmacia Biotech, UK) and gel filtration chromatography over Superdex-75 (Pharmacia).

The human IL-13 (amino acid residues 1 to 113) (SEQ ID NO:4) was expressed and purified as described in example 5.

A complex containing IL-13 and IL-13Rα1 was was formed by mixing the receptor with a slight excess of IL-13. Following confirmation of complex formation by analytical size-exclusion chromatography, the complex was treated with endoglycosidase Hf (endoHf) (25,000 units/mL) for 90 minutes at 37°C. The deglycosylated complexes were applied to a concanavalin A (conA)-Sepharose column to remove protein with uncleaved oligosaccharides, and the remaining complexes were applied to a NiNTA column to remove EndoHf. The purified complexes were purified to homogeneity by gel filtration chromatography over Superdex-200 (GE Healthcare, formerly Amersham Biosciences, Piscatway, NJ). Formation of 1:1 complexes of IL-13 and IL-13Rα1 was confirmed by native polyacrylamide gel electrophoresis and size exclusion chromatography prior to crystal screening.

mAb13.2 Fab was purified as described in example 4.

Crystals of a complex of IL-13, IL-13Rα1, and mAb13.2 Fab were grown at 18°C by vapor diffusion in hanging drops containing 10 mg/ml protein complex, 13% PEG-MME 2000 and 100 mM HEPES (pH 7.0). Crystals appeared in several weeks, but did not reach maximal size for several months. The crystals had the symmetry of space group I4 with unit cell dimensions a = 164.9 Å, b = 164.9 Å, and c = 74.8 Å. Prior to data collection, crystals were briefly transferred to 10% ethylene glycol plus mother liquor and flash cooled in liquid nitrogen. Throughout data collection, the crystal was maintained at 100K. Data were collected at the 5.0.1 beam line at the Advanced Light Source, Berkeley, California. Intensities were integrated and scaled using DENZO (Otwinowski and Minor, Methods Enzymol. 276:307-326, 1997) and SCALA ("CCP4," Acta Cryst D50:760-763, 1994).

The structure was solved by molecular replacement using the coordinates of the mAb13.2 Fab/IL-13 complex (Table 11). Initial phases were improved by solvent flattening using Solomon as implemented in CCP4 ("CCP4," Acta Cryst D50:760-763, 1994). Rigid body refinement within CCP4 was used to obtain an initial model. Experimental maps with continuous density were obtained, and an initial model was

constructed using QUANTA (Accelrys, Inc., San Diego, CA) and refined against data from 30 to 2.2 Å with CNS (Brunger *et al., Acta Cryst.* D54:905-921, 1998). The final refined model, which includes polypeptide chains of IL-13Rα1 (residues 6-314), mAb13.2 Fab (light chain residues 1-213 and heavy chain residues 1-213) and IL-13 (residues 6-112), as well as 123 water molecules, has a working R-value of 24.4% and a free R-value of 27.2%. Statistics for data collection and refinement are shown in Tables 8 and 9. There were no backbone torsion angles outside of the allowed regions of the Ramachandran plot. Structural figures were generated using PYMOL (DeLano, "The PYMOL Molecular Graphics System" (2002) DeLano Scientific, San Carlos, CA) and Ribbons (Carson, *J.Appl.Cryst.* 24:958-961, 1991). The structural coordinates are provided in Table 12. The following residues of IL-13Rα1 had no density beyond the C-beta atom and the coordinates for each were truncated to reflect that ambiguity: 81E, 93R, 104T, 105N, 111S, 112I, 122E, 124D, 150R, 151T, 157N, 165R, 168E, 169K, 174E, 195S, 196S, 197F, 305D, 306T, 339K, 110P, 200Q, 203Q, 204I, 209N, 212K, 213I, 214K, 240N, 279E, 284N, and 293N.

Table 8. Statistics for Data Collection and Phase Determination

Data Collection	IL-13/mAb13.2 Fab/IL-13Rα1
Crystal system	Tetragonal
Space group	I4
Unit cell dimensions	a=b=164.9 Å, c = 74.8 Å, α=β=γ=90.0°
Data collection temperature	100K
Number of crystals	1
Radiation Source	ALS, Berkeley, CA
Wavelength (Å)	λ = 1.0 Å
Resolution range(Å)	30-2.2 Å
Maximum resolution (Å)	2.2 Å.
R_{merge}[a](%)	6.7% (48.6%)
% complete	99.9% (99.0%)
total reflections (free)	42298 (2110)
unique reflections	40188
I/σ(I)	26.6 (2.8)

[a] $R_{merge} = \Sigma | I_h - \langle I_h \rangle | / \Sigma I_h$, where $\langle I_h \rangle$ is the average intensity over symmetry equivalents. Number in parentheses reflects statistics for the last resolution shell (2.8 Å -2.7 Å).

Table 9. Structure Refinement Statistics

Data Collection	IL-13/mAb13.2 Fab/IL-13Rα1
Model for molecular replacement	mAb13.2 Fab/IL-13
Maximum Resolution (Å)	2.2 Å
R_{work}[a] (%)	24.4 %
R_{free} (%)	27.2 %

[a] $R_{work} = \Sigma||F_{obs}| - |F_{calc}||/\Sigma|F_{obs}|$, R_{free} is equivalent to R_{work} but calculated for a randomly chosen 6.4% of reflections that are omitted from the refinement process.

There are two points of substantial interaction between IL-13 and IL-13Rα1. One interaction is between Ig domain 1 and a portion of the loop connecting helices C and D of the cytokine while the other interaction is between Ig domain 3 of the receptor and helices A and D of IL-13 (see FIG. 15).

The interaction between Ig domain 1 of IL-13Rα1 and IL-13 results in the formation of an extended beta sheet spanning the two molecules. Residues Thr88, Lys89, Ile90 and Glu91 of IL-13 (SEQ ID NO:4) form a beta strand that interacts with residues Lys76, Lys77, Ile78 and Ala79 of the receptor (SEQ ID NO:12) (See FIG. 16). Additionally, the side chain of Met33 of IL-13 extends into a hydrophobic pocket that is created by the side chains of these adjoining strands.

The predominant feature of the interaction with Ig domain 3 is the insertion of a hydrophobic residue (Phe107) of IL-13 into a hydrophobic pocket in Ig domain 3 of

the receptor IL-13Rα1. The hydrophobic pocket of IL-13Rα1 is formed by the side chains of residues Leu319, Cys257, Arg256 and Cys320 (FIG. 17). The interaction with Phe107 of IL-13 results in an extensive set of Van der Waals interactions between amino acid residues Ile254, Ser255, Arg256, Lys318, Cys320, and Tyr321 of IL-13Rα1 (SEQ ID NO:12) and amino acid residues Arg11, Glu12, Leu13, Ile14, Glu15, Lys104, Lys105, Leu106, Phe107 and Arg108 of IL-13 (SEQ ID NO:4) (See FIG. 17).

Table 10. Structure coordinates of mAb13.2 Fab[a, b]

		#	Name	Res.	Chain	Res #	X	Y	Z	occ	B	SegID	Ele
	ATOM	1	N	ASP	L	1	5.849	-2.062	0.182	1.00	66.67	L	N
5	ATOM	2	CA	ASP	L	1	5.758	-0.620	0.381	1.00	65.86	L	C
	ATOM	3	C	ASP	L	1	7.071	0.081	0.023	1.00	58.91	L	C
	ATOM	4	O	ASP	L	1	8.115	-0.534	-0.151	1.00	57.75	L	O
	ATOM	5	CB	ASP	L	1	5.413	-0.362	1.849	1.00	70.47	L	C
	ATOM	6	CG	ASP	L	1	6.620	-0.695	2.715	1.00	75.61	L	C
10	ATOM	7	OD1	ASP	L	1	7.623	-1.136	2.154	1.00	80.71	L	O
	ATOM	8	OD2	ASP	L	1	6.547	-0.509	3.927	1.00	87.49	L	O
	ATOM	9	N	ILE	L	2	6.981	1.415	-0.125	1.00	52.10	L	N
	ATOM	10	CA	ILE	L	2	8.171	2.181	-0.476	1.00	40.08	L	C
	ATOM	11	C	ILE	L	2	8.900	2.695	0.767	1.00	42.02	L	C
15	ATOM	12	O	ILE	L	2	8.355	3.411	1.598	1.00	48.63	L	O
	ATOM	13	CB	ILE	L	2	7.740	3.360	-1.351	1.00	42.36	L	C
	ATOM	14	CG1	ILE	L	2	7.395	2.872	-2.761	1.00	38.52	L	C
	ATOM	15	CG2	ILE	L	2	8.895	4.371	-1.472	1.00	36.85	L	C
	ATOM	16	CD1	ILE	L	2	7.183	4.027	-3.741	1.00	31.90	L	C
20	ATOM	17	N	VAL	L	3	10.170	2.268	0.899	1.00	43.87	L	N
	ATOM	18	CA	VAL	L	3	10.965	2.713	2.037	1.00	41.50	L	C
	ATOM	19	C	VAL	L	3	11.652	4.052	1.752	1.00	39.10	L	C
	ATOM	20	O	VAL	L	3	12.512	4.166	0.888	1.00	45.89	L	O
	ATOM	21	CB	VAL	L	3	12.016	1.642	2.333	1.00	42.05	L	C
25	ATOM	22	CG1	VAL	L	3	12.810	2.022	3.582	1.00	44.42	L	C
	ATOM	23	CG2	VAL	L	3	11.342	0.302	2.559	1.00	39.67	L	C
	ATOM	24	N	LEU	L	4	11.341	4.998	2.628	1.00	40.82	L	N
	ATOM	25	CA	LEU	L	4	12.027	6.277	2.650	1.00	39.96	L	C
	ATOM	26	C	LEU	L	4	12.991	6.250	3.819	1.00	40.04	L	C
30	ATOM	27	O	LEU	L	4	12.615	5.894	4.936	1.00	41.74	L	O
	ATOM	28	CB	LEU	L	4	11.036	7.412	2.857	1.00	38.52	L	C
	ATOM	29	CG	LEU	L	4	9.763	7.348	2.031	1.00	38.66	L	C
	ATOM	30	CD1	LEU	L	4	9.007	8.640	2.245	1.00	50.64	L	C
	ATOM	31	CD2	LEU	L	4	10.094	7.164	0.562	1.00	46.26	L	C
35	ATOM	32	N	THR	L	5	14.234	6.630	3.567	1.00	38.94	L	N
	ATOM	33	CA	THR	L	5	15.233	6.639	4.622	1.00	41.89	L	C
	ATOM	34	C	THR	L	5	15.751	8.050	4.829	1.00	46.14	L	C
	ATOM	35	O	THR	L	5	16.433	8.595	3.962	1.00	53.43	L	O
	ATOM	36	CB	THR	L	5	16.397	5.730	4.243	1.00	39.78	L	C
40	ATOM	37	OG1	THR	L	5	15.896	4.411	3.995	1.00	53.91	L	O
	ATOM	38	CG2	THR	L	5	17.430	5.688	5.347	1.00	41.58	L	C
	ATOM	39	N	GLN	L	6	15.429	8.664	5.959	1.00	43.43	L	N
	ATOM	40	CA	GLN	L	6	15.925	10.015	6.179	1.00	44.62	L	C
	ATOM	41	C	GLN	L	6	17.355	9.954	6.681	1.00	46.70	L	C
45	ATOM	42	O	GLN	L	6	17.758	8.989	7.326	1.00	45.08	L	O
	ATOM	43	CB	GLN	L	6	15.052	10.780	7.179	1.00	44.41	L	C
	ATOM	44	CG	GLN	L	6	13.596	10.849	6.764	1.00	37.31	L	C
	ATOM	45	CD	GLN	L	6	12.796	11.858	7.553	1.00	27.04	L	C
	ATOM	46	OE1	GLN	L	6	11.606	11.679	7.762	1.00	41.69	L	O
50	ATOM	47	NE2	GLN	L	6	13.441	12.929	7.979	1.00	38.94	L	N
	ATOM	48	N	SER	L	7	18.117	10.993	6.364	1.00	49.55	L	N
	ATOM	49	CA	SER	L	7	19.511	11.091	6.763	1.00	49.16	L	C
	ATOM	50	C	SER	L	7	19.823	12.568	6.912	1.00	44.38	L	C
	ATOM	51	O	SER	L	7	19.517	13.358	6.033	1.00	48.04	L	O
55	ATOM	52	CB	SER	L	7	20.399	10.483	5.676	1.00	51.89	L	C
	ATOM	53	OG	SER	L	7	21.712	10.254	6.152	1.00	68.31	L	O
	ATOM	54	N	PRO	L	8	20.426	12.960	8.037	1.00	44.47	L	N
	ATOM	55	CA	PRO	L	8	20.799	12.057	9.120	1.00	47.06	L	C
	ATOM	56	C	PRO	L	8	19.607	11.777	10.028	1.00	50.00	L	C
60	ATOM	57	O	PRO	L	8	18.452	11.965	9.640	1.00	56.56	L	O

ATOM	58	CB	PRO	L	8	21.883	12.838	9.841	1.00	44.60	L	C
ATOM	59	CG	PRO	L	8	21.358	14.219	9.760	1.00	39.02	L	C
ATOM	60	CD	PRO	L	8	20.911	14.323	8.317	1.00	44.32	L	C
ATOM	61	N	ALA	L	9	19.905	11.341	11.244	1.00	42.76	L	N
ATOM	62	CA	ALA	L	9	18.883	11.033	12.215	1.00	30.84	L	C
ATOM	63	C	ALA	L	9	18.728	12.221	13.136	1.00	34.02	L	C
ATOM	64	O	ALA	L	9	17.619	12.564	13.539	1.00	34.10	L	O
ATOM	65	CB	ALA	L	9	19.289	9.824	12.993	1.00	36.31	L	C
ATOM	66	N	SER	L	10	19.856	12.841	13.471	1.00	33.73	L	N
ATOM	67	CA	SER	L	10	19.885	14.006	14.345	1.00	34.21	L	C
ATOM	68	C	SER	L	10	20.660	15.103	13.656	1.00	30.61	L	C
ATOM	69	O	SER	L	10	21.478	14.840	12.786	1.00	37.19	L	O
ATOM	70	CB	SER	L	10	20.562	13.673	15.663	1.00	39.85	L	C
ATOM	71	OG	SER	L	10	19.863	12.647	16.323	1.00	58.43	L	O
ATOM	72	N	LEU	L	11	20.428	16.335	14.069	1.00	29.18	L	N
ATOM	73	CA	LEU	L	11	21.094	17.449	13.441	1.00	29.44	L	C
ATOM	74	C	LEU	L	11	21.199	18.558	14.468	1.00	34.45	L	C
ATOM	75	O	LEU	L	11	20.206	18.914	15.099	1.00	38.49	L	O
ATOM	76	CB	LEU	L	11	20.245	17.919	12.270	1.00	38.78	L	C
ATOM	77	CG	LEU	L	11	20.735	19.031	11.368	1.00	34.38	L	C
ATOM	78	CD1	LEU	L	11	22.005	18.572	10.671	1.00	54.90	L	C
ATOM	79	CD2	LEU	L	11	19.669	19.346	10.345	1.00	44.63	L	C
ATOM	80	N	ALA	L	12	22.394	19.110	14.643	1.00	39.63	L	N
ATOM	81	CA	ALA	L	12	22.798	20.159	15.575	1.00	36.46	L	C
ATOM	82	C	ALA	L	12	23.247	21.418	14.832	1.00	35.24	L	C
ATOM	83	O	ALA	L	12	24.322	21.485	14.251	1.00	40.47	L	O
ATOM	84	CB	ALA	L	12	23.946	19.620	16.429	1.00	39.40	L	C
ATOM	85	N	VAL	L	13	22.357	22.428	14.831	1.00	33.94	L	N
ATOM	86	CA	VAL	L	13	22.652	23.673	14.132	1.00	44.79	L	C
ATOM	87	C	VAL	L	13	22.485	24.889	15.047	1.00	43.03	L	C
ATOM	88	O	VAL	L	13	21.747	24.879	16.023	1.00	42.07	L	O
ATOM	89	CB	VAL	L	13	21.698	23.787	12.942	1.00	42.44	L	C
ATOM	90	CG1	VAL	L	13	21.877	25.143	12.258	1.00	42.25	L	C
ATOM	91	CG2	VAL	L	13	21.977	22.680	11.942	1.00	56.66	L	C
ATOM	92	N	SER	L	14	23.242	25.953	14.719	1.00	46.49	L	N
ATOM	93	CA	SER	L	14	23.145	27.177	15.505	1.00	50.99	L	C
ATOM	94	C	SER	L	14	22.219	28.196	14.839	1.00	46.51	L	C
ATOM	95	O	SER	L	14	22.091	28.269	13.624	1.00	51.52	L	O
ATOM	96	CB	SER	L	14	24.549	27.765	15.650	1.00	51.18	L	C
ATOM	97	OG	SER	L	14	25.514	26.791	15.246	1.00	60.81	L	O
ATOM	98	N	LEU	L	15	21.527	28.976	15.688	1.00	41.47	L	N
ATOM	99	CA	LEU	L	15	20.600	29.971	15.160	1.00	43.66	L	C
ATOM	100	C	LEU	L	15	21.164	30.669	13.918	1.00	43.12	L	C
ATOM	101	O	LEU	L	15	22.350	30.953	13.816	1.00	50.89	L	O
ATOM	102	CB	LEU	L	15	20.325	30.998	16.261	1.00	45.45	L	C
ATOM	103	CG	LEU	L	15	19.470	30.425	17.394	1.00	39.74	L	C
ATOM	104	CD1	LEU	L	15	19.079	31.484	18.428	1.00	50.28	L	C
ATOM	105	CD2	LEU	L	15	18.162	29.810	16.896	1.00	48.82	L	C
ATOM	106	N	GLY	L	16	20.308	31.017	12.967	1.00	39.34	L	N
ATOM	107	CA	GLY	L	16	20.763	31.757	11.807	1.00	37.83	L	C
ATOM	108	C	GLY	L	16	21.510	30.955	10.764	1.00	36.32	L	C
ATOM	109	O	GLY	L	16	21.802	31.473	9.683	1.00	45.28	L	O
ATOM	110	N	GLN	L	17	21.826	29.702	11.068	1.00	30.61	L	N
ATOM	111	CA	GLN	L	17	22.537	28.872	10.111	1.00	33.76	L	C
ATOM	112	C	GLN	L	17	21.545	28.158	9.215	1.00	32.65	L	C
ATOM	113	O	GLN	L	17	20.361	28.471	9.220	1.00	33.30	L	O
ATOM	114	CB	GLN	L	17	23.417	27.851	10.833	1.00	34.75	L	C
ATOM	115	CG	GLN	L	17	24.397	28.480	11.798	1.00	50.05	L	C
ATOM	116	CD	GLN	L	17	25.314	29.478	11.117	1.00	50.98	L	C
ATOM	117	OE1	GLN	L	17	25.594	30.556	11.658	1.00	48.45	L	O
ATOM	118	NE2	GLN	L	17	25.793	29.125	9.927	1.00	32.88	L	N

	ATOM	119	N	ARG	L	18	22.034	27.197	8.440	1.00	34.50	L	N
	ATOM	120	CA	ARG	L	18	21.179	26.442	7.543	1.00	29.75	L	C
	ATOM	121	C	ARG	L	18	21.281	24.969	7.864	1.00	33.92	L	C
	ATOM	122	O	ARG	L	18	22.350	24.464	8.186	1.00	40.96	L	O
5	ATOM	123	CB	ARG	L	18	21.586	26.678	6.094	1.00	32.75	L	C
	ATOM	124	CG	ARG	L	18	20.989	25.701	5.105	1.00	27.81	L	C
	ATOM	125	CD	ARG	L	18	21.450	26.041	3.706	1.00	37.23	L	C
	ATOM	126	NE	ARG	L	18	22.909	26.054	3.575	1.00	56.95	L	N
	ATOM	127	CZ	ARG	L	18	23.569	26.457	2.488	1.00	52.86	L	C
10	ATOM	128	NH1	ARG	L	18	22.909	26.891	1.419	1.00	48.42	L	N
	ATOM	129	NH2	ARG	L	18	24.898	26.415	2.465	1.00	46.66	L	N
	ATOM	130	N	ALA	L	19	20.148	24.287	7.787	1.00	34.89	L	N
	ATOM	131	CA	ALA	L	19	20.080	22.869	8.054	1.00	31.86	L	C
	ATOM	132	C	ALA	L	19	19.525	22.234	6.799	1.00	32.59	L	C
15	ATOM	133	O	ALA	L	19	18.621	22.781	6.185	1.00	37.78	L	O
	ATOM	134	CB	ALA	L	19	19.156	22.605	9.222	1.00	26.13	L	C
	ATOM	135	N	THR	L	20	20.074	21.093	6.405	1.00	36.27	L	N
	ATOM	136	CA	THR	L	20	19.577	20.410	5.228	1.00	41.54	L	C
	ATOM	137	C	THR	L	20	19.269	18.979	5.602	1.00	44.55	L	C
20	ATOM	138	O	THR	L	20	20.070	18.313	6.237	1.00	58.65	L	O
	ATOM	139	CB	THR	L	20	20.595	20.402	4.063	1.00	39.53	L	C
	ATOM	140	OG1	THR	L	20	20.875	21.745	3.657	1.00	50.92	L	O
	ATOM	141	CG2	THR	L	20	20.021	19.672	2.874	1.00	37.47	L	C
	ATOM	142	N	ILE	L	21	18.090	18.512	5.222	1.00	45.42	L	N
25	ATOM	143	CA	ILE	L	21	17.700	17.151	5.516	1.00	38.44	L	C
	ATOM	144	C	ILE	L	21	17.582	16.407	4.195	1.00	38.28	L	C
	ATOM	145	O	ILE	L	21	17.236	16.989	3.157	1.00	39.74	L	O
	ATOM	146	CB	ILE	L	21	16.348	17.103	6.291	1.00	43.11	L	C
	ATOM	147	CG1	ILE	L	21	16.521	17.747	7.666	1.00	44.22	L	C
30	ATOM	148	CG2	ILE	L	21	15.886	15.653	6.483	1.00	47.73	L	C
	ATOM	149	CD1	ILE	L	21	15.320	17.550	8.582	1.00	56.67	L	C
	ATOM	150	N	SER	L	22	17.885	15.115	4.251	1.00	33.33	L	N
	ATOM	151	CA	SER	L	22	17.834	14.257	3.083	1.00	32.47	L	C
	ATOM	152	C	SER	L	22	16.856	13.114	3.290	1.00	27.07	L	C
35	ATOM	153	O	SER	L	22	16.629	12.685	4.419	1.00	32.17	L	O
	ATOM	154	CB	SER	L	22	19.235	13.703	2.783	1.00	30.96	L	C
	ATOM	155	OG	SER	L	22	19.185	12.604	1.886	1.00	38.42	L	O
	ATOM	156	N	CYS	L	23	16.278	12.647	2.184	1.00	19.51	L	N
	ATOM	157	CA	CYS	L	23	15.327	11.538	2.177	1.00	32.07	L	C
40	ATOM	158	C	CYS	L	23	15.568	10.763	0.892	1.00	33.68	L	C
	ATOM	159	O	CYS	L	23	15.552	11.328	-0.198	1.00	34.61	L	O
	ATOM	160	CB	CYS	L	23	13.881	12.066	2.201	1.00	34.20	L	C
	ATOM	161	SG	CYS	L	23	12.480	10.881	2.134	1.00	42.49	L	S
	ATOM	162	N	LYS	L	24	15.838	9.473	1.021	1.00	32.63	L	N
45	ATOM	163	CA	LYS	L	24	16.029	8.646	-0.154	1.00	35.47	L	C
	ATOM	164	C	LYS	L	24	14.977	7.548	-0.163	1.00	38.09	L	C
	ATOM	165	O	LYS	L	24	14.765	6.858	0.839	1.00	41.45	L	O
	ATOM	166	CB	LYS	L	24	17.431	8.040	-0.184	1.00	39.20	L	C
	ATOM	167	CG	LYS	L	24	18.489	8.954	-0.787	1.00	58.69	L	C
50	ATOM	168	CD	LYS	L	24	18.571	10.293	-0.064	1.00	73.72	L	C
	ATOM	169	CE	LYS	L	24	19.889	11.004	-0.356	1.00	82.49	L	C
	ATOM	170	NZ	LYS	L	24	21.089	10.292	0.216	1.00	65.38	L	N
	ATOM	171	N	ALA	L	25	14.308	7.409	-1.298	1.00	34.05	L	N
	ATOM	172	CA	ALA	L	25	13.275	6.407	-1.455	1.00	36.52	L	C
55	ATOM	173	C	ALA	L	25	13.775	5.221	-2.274	1.00	37.06	L	C
	ATOM	174	O	ALA	L	25	14.534	5.379	-3.224	1.00	40.67	L	O
	ATOM	175	CB	ALA	L	25	12.049	7.023	-2.121	1.00	32.09	L	C
	ATOM	176	N	SER	L	26	13.334	4.034	-1.886	1.00	36.30	L	N
	ATOM	177	CA	SER	L	26	13.698	2.804	-2.556	1.00	39.67	L	C
60	ATOM	178	C	SER	L	26	13.130	2.728	-3.973	1.00	44.72	L	C
	ATOM	179	O	SER	L	26	13.625	1.969	-4.798	1.00	51.00	L	O

	ATOM	180	CB	SER	L	26	13.165	1.630	-1.756	1.00	45.86	L C
	ATOM	181	OG	SER	L	26	11.749	1.670	-1.717	1.00	46.37	L O
	ATOM	182	N	GLU	L	27	12.088	3.508	-4.248	1.00	42.93	L N
	ATOM	183	CA	GLU	L	27	11.449	3.510	-5.562	1.00	36.19	L C
5	ATOM	184	C	GLU	L	27	11.029	4.915	-5.964	1.00	35.89	L C
	ATOM	185	O	GLU	L	27	10.712	5.737	-5.113	1.00	44.15	L O
	ATOM	186	CB	GLU	L	27	10.215	2.602	-5.549	1.00	33.03	L C
	ATOM	187	CG	GLU	L	27	10.513	1.112	-5.429	1.00	38.92	L C
	ATOM	188	CD	GLU	L	27	9.253	0.263	-5.329	1.00	34.14	L C
10	ATOM	189	OE1	GLU	L	27	8.952	-0.214	-4.217	1.00	56.00	L O
	ATOM	190	OE2	GLU	L	27	8.556	0.070	-6.354	1.00	49.04	L O
	ATOM	191	N	SER	L	28	11.016	5.184	-7.266	1.00	42.57	L N
	ATOM	192	CA	SER	L	28	10.659	6.527	-7.708	1.00	44.76	L C
	ATOM	193	C	SER	L	28	9.234	6.901	-7.290	1.00	49.62	L C
15	ATOM	194	O	SER	L	28	8.288	6.144	-7.465	1.00	45.16	L O
	ATOM	195	CB	SER	L	28	10.784	6.578	-9.232	1.00	45.04	L C
	ATOM	196	OG	SER	L	28	10.814	7.940	-9.657	1.00	43.90	L O
	ATOM	197	N	VAL	L	29	9.161	8.098	-6.720	1.00	51.26	L N
	ATOM	198	CA	VAL	L	29	7.875	8.643	-6.291	1.00	48.35	L C
20	ATOM	199	C	VAL	L	29	7.302	9.645	-7.303	1.00	49.03	L C
	ATOM	200	O	VAL	L	29	6.536	10.541	-6.971	1.00	53.81	L O
	ATOM	201	CB	VAL	L	29	8.080	9.339	-4.945	1.00	45.09	L C
	ATOM	202	CG1	VAL	L	29	8.959	8.479	-4.041	1.00	45.73	L C
	ATOM	203	CG2	VAL	L	29	8.743	10.687	-5.153	1.00	39.01	L C
25	ATOM	204	N	ASP	L	30	7.725	9.490	-8.572	1.00	50.49	L N
	ATOM	205	CA	ASP	L	30	7.314	10.482	-9.561	1.00	51.89	L C
	ATOM	206	C	ASP	L	30	6.050	10.052	-10.314	1.00	55.22	L C
	ATOM	207	O	ASP	L	30	5.895	8.914	-10.735	1.00	56.81	L O
	ATOM	208	CB	ASP	L	30	8.466	10.674	-10.547	1.00	58.57	L C
30	ATOM	209	CG	ASP	L	30	9.368	11.794	-10.050	1.00	71.03	L C
	ATOM	210	OD1	ASP	L	30	9.806	12.590	-10.882	1.00	85.53	L O
	ATOM	211	OD2	ASP	L	30	9.613	11.864	-8.849	1.00	70.16	L O
	ATOM	212	N	ASN	L	30A	5.107	11.007	-10.446	1.00	62.31	L N
	ATOM	213	CA	ASN	L	30A	3.880	10.701	-11.174	1.00	66.21	L C
35	ATOM	214	C	ASN	L	30A	3.739	11.546	-12.440	1.00	72.19	L C
	ATOM	215	O	ASN	L	30A	3.151	12.619	-12.450	1.00	71.91	L O
	ATOM	216	CB	ASN	L	30A	2.684	10.949	-10.255	1.00	71.89	L C
	ATOM	217	CG	ASN	L	30A	1.425	10.503	-10.956	1.00	77.18	L C
	ATOM	218	OD1	ASN	L	30A	0.716	11.287	-11.583	1.00	79.23	L O
40	ATOM	219	ND2	ASN	L	30A	1.172	9.185	-10.878	1.00	82.39	L N
	ATOM	220	N	TYR	L	30B	4.340	11.038	-13.532	1.00	79.09	L N
	ATOM	221	CA	TYR	L	30B	4.180	11.735	-14.806	1.00	84.64	L C
	ATOM	222	C	TYR	L	30B	4.879	13.099	-14.807	1.00	80.89	L C
	ATOM	223	O	TYR	L	30B	4.403	14.070	-15.380	1.00	78.21	L O
45	ATOM	224	CB	TYR	L	30B	2.684	11.917	-15.066	1.00	92.55	L C
	ATOM	225	CG	TYR	L	30B	2.049	10.595	-15.306	1.00	106.94	L C
	ATOM	226	CD1	TYR	L	30B	1.960	9.669	-14.270	1.00	124.67	L C
	ATOM	227	CD2	TYR	L	30B	1.530	10.277	-16.562	1.00	117.46	L C
	ATOM	228	CE1	TYR	L	30B	1.349	8.442	-14.482	1.00	130.56	L C
50	ATOM	229	CE2	TYR	L	30B	0.928	9.046	-16.777	1.00	130.84	L C
	ATOM	230	CZ	TYR	L	30B	0.839	8.130	-15.744	1.00	132.90	L C
	ATOM	231	OH	TYR	L	30B	0.224	6.910	-15.945	1.00	133.30	L O
	ATOM	232	N	GLY	L	30C	6.015	13.182	-14.087	1.00	77.39	L N
	ATOM	233	CA	GLY	L	30C	6.790	14.419	-14.111	1.00	76.49	L C
55	ATOM	234	C	GLY	L	30C	6.823	15.119	-12.749	1.00	75.11	L C
	ATOM	235	O	GLY	L	30C	7.533	16.093	-12.535	1.00	77.14	L O
	ATOM	236	N	LYS	L	30D	5.991	14.619	-11.818	1.00	67.87	L N
	ATOM	237	CA	LYS	L	30D	5.920	15.263	-10.510	1.00	58.91	L C
	ATOM	238	C	LYS	L	30D	6.254	14.295	-9.367	1.00	54.18	L C
60	ATOM	239	O	LYS	L	30D	5.840	13.143	-9.350	1.00	53.39	L O
	ATOM	240	CB	LYS	L	30D	4.509	15.831	-10.333	1.00	59.26	L C

	ATOM	241	CG	LYS	L	30D	4.209	16.960	-11.324	1.00	63.98	L	C
	ATOM	242	CD	LYS	L	30D	3.211	17.978	-10.767	1.00	82.67	L	C
	ATOM	243	CE	LYS	L	30D	3.066	19.212	-11.664	1.00	98.60	L	C
	ATOM	244	NZ	LYS	L	30D	2.785	18.794	-13.035	1.00	108.42	L	N
5	ATOM	245	N	SER	L	31	7.027	14.777	-8.402	1.00	48.70	L	N
	ATOM	246	CA	SER	L	31	7.420	13.961	-7.261	1.00	48.64	L	C
	ATOM	247	C	SER	L	31	6.407	14.075	-6.127	1.00	46.46	L	C
	ATOM	248	O	SER	L	31	6.195	15.156	-5.571	1.00	46.13	L	O
	ATOM	249	CB	SER	L	31	8.798	14.391	-6.760	1.00	44.76	L	C
10	ATOM	250	OG	SER	L	31	9.734	14.408	-7.818	1.00	48.15	L	O
	ATOM	251	N	LEU	L	32	5.777	12.956	-5.788	1.00	40.47	L	N
	ATOM	252	CA	LEU	L	32	4.796	12.950	-4.717	1.00	36.96	L	C
	ATOM	253	C	LEU	L	32	5.501	12.689	-3.393	1.00	38.57	L	C
	ATOM	254	O	LEU	L	32	5.338	11.645	-2.772	1.00	40.41	L	O
15	ATOM	255	CB	LEU	L	32	3.734	11.895	-5.002	1.00	37.94	L	C
	ATOM	256	CG	LEU	L	32	3.205	12.103	-6.424	1.00	38.09	L	C
	ATOM	257	CD1	LEU	L	32	1.975	11.241	-6.665	1.00	40.08	L	C
	ATOM	258	CD2	LEU	L	32	2.883	13.574	-6.625	1.00	18.30	L	C
	ATOM	259	N	MET	L	33	6.288	13.675	-2.982	1.00	39.42	L	N
20	ATOM	260	CA	MET	L	33	7.069	13.631	-1.756	1.00	35.69	L	C
	ATOM	261	C	MET	L	33	6.618	14.837	-0.949	1.00	36.17	L	C
	ATOM	262	O	MET	L	33	6.480	15.921	-1.503	1.00	39.26	L	O
	ATOM	263	CB	MET	L	33	8.567	13.741	-2.109	1.00	35.25	L	C
	ATOM	264	CG	MET	L	33	9.519	13.699	-0.937	1.00	29.04	L	C
25	ATOM	265	SD	MET	L	33	9.186	12.324	0.219	1.00	63.78	L	S
	ATOM	266	CE	MET	L	33	9.514	10.867	-0.802	1.00	61.41	L	C
	ATOM	267	N	HIS	L	34	6.383	14.659	0.347	1.00	32.55	L	N
	ATOM	268	CA	HIS	L	34	5.930	15.773	1.181	1.00	30.96	L	C
	ATOM	269	C	HIS	L	34	6.689	15.799	2.506	1.00	32.27	L	C
30	ATOM	270	O	HIS	L	34	7.011	14.747	3.052	1.00	37.96	L	O
	ATOM	271	CB	HIS	L	34	4.426	15.649	1.485	1.00	31.51	L	C
	ATOM	272	CG	HIS	L	34	3.588	15.261	0.307	1.00	13.71	L	C
	ATOM	273	ND1	HIS	L	34	3.397	16.087	-0.780	1.00	26.36	L	N
	ATOM	274	CD2	HIS	L	34	2.882	14.137	0.051	1.00	18.42	L	C
35	ATOM	275	CE1	HIS	L	34	2.609	15.489	-1.654	1.00	16.76	L	C
	ATOM	276	NE2	HIS	L	34	2.282	14.304	-1.173	1.00	28.77	L	N
	ATOM	277	N	TRP	L	35	6.958	16.992	3.030	1.00	30.35	L	N
	ATOM	278	CA	TRP	L	35	7.665	17.110	4.299	1.00	28.13	L	C
	ATOM	279	C	TRP	L	35	6.826	17.615	5.487	1.00	30.86	L	C
40	ATOM	280	O	TRP	L	35	6.030	18.548	5.367	1.00	31.74	L	O
	ATOM	281	CB	TRP	L	35	8.877	18.023	4.145	1.00	25.50	L	C
	ATOM	282	CG	TRP	L	35	9.953	17.475	3.293	1.00	33.54	L	C
	ATOM	283	CD1	TRP	L	35	10.085	17.629	1.954	1.00	22.15	L	C
	ATOM	284	CD2	TRP	L	35	11.064	16.676	3.722	1.00	41.05	L	C
45	ATOM	285	NE1	TRP	L	35	11.211	16.981	1.513	1.00	39.93	L	N
	ATOM	286	CE2	TRP	L	35	11.833	16.386	2.579	1.00	39.83	L	C
	ATOM	287	CE3	TRP	L	35	11.483	16.176	4.960	1.00	37.32	L	C
	ATOM	288	CZ2	TRP	L	35	13.004	15.613	2.633	1.00	34.89	L	C
	ATOM	289	CZ3	TRP	L	35	12.648	15.406	5.010	1.00	39.53	L	C
50	ATOM	290	CH2	TRP	L	35	13.391	15.134	3.856	1.00	25.23	L	C
	ATOM	291	N	TYR	L	36	7.023	17.006	6.650	1.00	26.93	L	N
	ATOM	292	CA	TYR	L	36	6.299	17.433	7.823	1.00	24.56	L	C
	ATOM	293	C	TYR	L	36	7.218	17.809	8.968	1.00	27.73	L	C
	ATOM	294	O	TYR	L	36	8.359	17.355	9.054	1.00	29.41	L	O
55	ATOM	295	CB	TYR	L	36	5.338	16.353	8.281	1.00	27.13	L	C
	ATOM	296	CG	TYR	L	36	4.349	15.958	7.222	1.00	28.84	L	C
	ATOM	297	CD1	TYR	L	36	4.703	15.072	6.206	1.00	32.70	L	C
	ATOM	298	CD2	TYR	L	36	3.060	16.470	7.230	1.00	29.19	L	C
	ATOM	299	CE1	TYR	L	36	3.800	14.706	5.233	1.00	29.50	L	C
60	ATOM	300	CE2	TYR	L	36	2.146	16.112	6.262	1.00	32.05	L	C
	ATOM	301	CZ	TYR	L	36	2.516	15.230	5.269	1.00	28.90	L	C

	ATOM	302	OH	TYR	L	36	1.587	14.852	4.331	1.00	31.16	L	O
	ATOM	303	N	GLN	L	37	6.703	18.674	9.832	1.00	25.72	L	N
	ATOM	304	CA	GLN	L	37	7.419	19.131	11.003	1.00	29.42	L	C
	ATOM	305	C	GLN	L	37	6.540	18.825	12.198	1.00	27.20	L	C
5	ATOM	306	O	GLN	L	37	5.335	19.042	12.169	1.00	30.38	L	O
	ATOM	307	CB	GLN	L	37	7.671	20.633	10.950	1.00	30.13	L	C
	ATOM	308	CG	GLN	L	37	8.155	21.194	12.281	1.00	39.28	L	C
	ATOM	309	CD	GLN	L	37	8.177	22.707	12.306	1.00	36.66	L	C
	ATOM	310	OE1	GLN	L	37	7.154	23.349	12.088	1.00	38.84	L	O
10	ATOM	311	NE2	GLN	L	37	9.340	23.285	12.581	1.00	29.96	L	N
	ATOM	312	N	GLN	L	38	7.145	18.290	13.245	1.00	27.64	L	N
	ATOM	313	CA	GLN	L	38	6.405	17.982	14.437	1.00	26.94	L	C
	ATOM	314	C	GLN	L	38	7.194	18.490	15.623	1.00	27.28	L	C
	ATOM	315	O	GLN	L	38	8.193	17.898	16.021	1.00	29.54	L	O
15	ATOM	316	CB	GLN	L	38	6.152	16.481	14.549	1.00	22.51	L	C
	ATOM	317	CG	GLN	L	38	5.437	16.082	15.834	1.00	29.24	L	C
	ATOM	318	CD	GLN	L	38	5.113	14.604	15.891	1.00	29.24	L	C
	ATOM	319	OE1	GLN	L	38	5.880	13.760	15.419	1.00	32.49	L	O
	ATOM	320	NE2	GLN	L	38	3.974	14.277	16.486	1.00	39.87	L	N
20	ATOM	321	N	LYS	L	39	6.737	19.614	16.166	1.00	28.43	L	N
	ATOM	322	CA	LYS	L	39	7.363	20.232	17.324	1.00	26.31	L	C
	ATOM	323	C	LYS	L	39	7.019	19.403	18.546	1.00	31.47	L	C
	ATOM	324	O	LYS	L	39	5.937	18.810	18.634	1.00	32.57	L	O
	ATOM	325	CB	LYS	L	39	6.848	21.660	17.495	1.00	25.15	L	C
25	ATOM	326	CG	LYS	L	39	7.064	22.527	16.277	1.00	21.42	L	C
	ATOM	327	CD	LYS	L	39	6.510	23.887	16.515	1.00	25.95	L	C
	ATOM	328	CE	LYS	L	39	6.913	24.841	15.418	1.00	25.49	L	C
	ATOM	329	NZ	LYS	L	39	6.500	26.226	15.764	1.00	41.94	L	N
	ATOM	330	N	PRO	L	40	7.938	19.351	19.513	1.00	33.67	L	N
30	ATOM	331	CA	PRO	L	40	7.732	18.575	20.737	1.00	37.29	L	C
	ATOM	332	C	PRO	L	40	6.400	18.859	21.429	1.00	42.79	L	C
	ATOM	333	O	PRO	L	40	6.055	20.011	21.724	1.00	40.43	L	O
	ATOM	334	CB	PRO	L	40	8.939	18.950	21.587	1.00	42.86	L	C
	ATOM	335	CG	PRO	L	40	9.983	19.257	20.560	1.00	39.77	L	C
35	ATOM	336	CD	PRO	L	40	9.222	20.062	19.553	1.00	29.92	L	C
	ATOM	337	N	GLY	L	41	5.648	17.790	21.668	1.00	43.78	L	N
	ATOM	338	CA	GLY	L	41	4.367	17.929	22.326	1.00	46.56	L	C
	ATOM	339	C	GLY	L	41	3.223	18.220	21.383	1.00	43.68	L	C
	ATOM	340	O	GLY	L	41	2.105	18.424	21.834	1.00	49.55	L	O
40	ATOM	341	N	GLN	L	42	3.483	18.235	20.080	1.00	41.00	L	N
	ATOM	342	CA	GLN	L	42	2.429	18.509	19.113	1.00	40.68	L	C
	ATOM	343	C	GLN	L	42	2.301	17.439	18.031	1.00	42.38	L	C
	ATOM	344	O	GLN	L	42	2.975	16.410	18.059	1.00	40.20	L	O
	ATOM	345	CB	GLN	L	42	2.674	19.858	18.449	1.00	44.01	L	C
45	ATOM	346	CG	GLN	L	42	2.908	20.997	19.419	1.00	53.32	L	C
	ATOM	347	CD	GLN	L	42	3.214	22.303	18.716	1.00	47.80	L	C
	ATOM	348	OE1	GLN	L	42	3.430	23.330	19.351	1.00	82.52	L	O
	ATOM	349	NE2	GLN	L	42	3.234	22.267	17.387	1.00	57.98	L	N
	ATOM	350	N	SER	L	43	1.420	17.689	17.071	1.00	41.14	L	N
50	ATOM	351	CA	SER	L	43	1.211	16.757	15.972	1.00	42.56	L	C
	ATOM	352	C	SER	L	43	1.930	17.230	14.710	1.00	40.84	L	C
	ATOM	353	O	SER	L	43	2.415	18.359	14.633	1.00	43.67	L	O
	ATOM	354	CB	SER	L	43	-0.280	16.609	15.699	1.00	40.59	L	C
	ATOM	355	OG	SER	L	43	-0.907	17.872	15.663	1.00	47.28	L	O
55	ATOM	356	N	PRO	L	44	2.018	16.367	13.702	1.00	35.42	L	N
	ATOM	357	CA	PRO	L	44	2.705	16.792	12.484	1.00	36.10	L	C
	ATOM	358	C	PRO	L	44	2.094	18.026	11.826	1.00	33.06	L	C
	ATOM	359	O	PRO	L	44	0.923	18.322	12.007	1.00	41.89	L	O
	ATOM	360	CB	PRO	L	44	2.623	15.550	11.601	1.00	34.17	L	C
60	ATOM	361	CG	PRO	L	44	2.704	14.448	12.595	1.00	33.70	L	C
	ATOM	362	CD	PRO	L	44	1.734	14.925	13.662	1.00	33.48	L	C

	ATOM	363	N	LYS	L	45	2.912	18.747	11.071	1.00	37.41	L	N
	ATOM	364	CA	LYS	L	45	2.661	20.000	10.405	1.00	32.25	L	C
	ATOM	365	C	LYS	L	45	3.136	19.899	8.972	1.00	36.14	L	C
	ATOM	366	O	LYS	L	45	4.278	19.559	8.691	1.00	43.37	L	O
5	ATOM	367	CB	LYS	L	45	3.438	21.096	11.136	1.00	36.87	L	C
	ATOM	368	CG	LYS	L	45	2.712	22.442	11.101	1.00	30.75	L	C
	ATOM	369	CD	LYS	L	45	3.574	23.580	11.651	1.00	63.53	L	C
	ATOM	370	CE	LYS	L	45	2.736	24.707	12.264	1.00	73.22	L	C
	ATOM	371	NZ	LYS	L	45	3.328	25.128	13.533	1.00	86.98	L	N
10	ATOM	372	N	LEU	L	46	2.387	20.252	7.929	1.00	38.47	L	N
	ATOM	373	CA	LEU	L	46	2.905	20.250	6.558	1.00	31.56	L	C
	ATOM	374	C	LEU	L	46	3.715	21.512	6.282	1.00	27.56	L	C
	ATOM	375	O	LEU	L	46	3.325	22.604	6.679	1.00	30.41	L	O
	ATOM	376	CB	LEU	L	46	1.745	20.151	5.561	1.00	30.51	L	C
15	ATOM	377	CG	LEU	L	46	2.062	20.048	4.063	1.00	32.20	L	C
	ATOM	378	CD1	LEU	L	46	2.843	18.751	3.752	1.00	33.50	L	C
	ATOM	379	CD2	LEU	L	46	0.750	20.068	3.305	1.00	23.20	L	C
	ATOM	380	N	LEU	L	47	4.848	21.354	5.610	1.00	28.53	L	N
	ATOM	381	CA	LEU	L	47	5.721	22.482	5.288	1.00	28.04	L	C
20	ATOM	382	C	LEU	L	47	5.890	22.620	3.776	1.00	28.70	L	C
	ATOM	383	O	LEU	L	47	5.701	23.694	3.195	1.00	29.81	L	O
	ATOM	384	CB	LEU	L	47	7.100	22.267	5.894	1.00	25.65	L	C
	ATOM	385	CG	LEU	L	47	7.289	21.941	7.367	1.00	27.67	L	C
	ATOM	386	CD1	LEU	L	47	8.738	21.534	7.578	1.00	38.37	L	C
25	ATOM	387	CD2	LEU	L	47	6.923	23.136	8.223	1.00	32.83	L	C
	ATOM	388	N	ILE	L	48	6.274	21.517	3.148	1.00	28.34	L	N
	ATOM	389	CA	ILE	L	48	6.479	21.499	1.716	1.00	27.51	L	C
	ATOM	390	C	ILE	L	48	5.664	20.340	1.225	1.00	26.97	L	C
	ATOM	391	O	ILE	L	48	5.583	19.325	1.916	1.00	23.95	L	O
30	ATOM	392	CB	ILE	L	48	7.981	21.227	1.336	1.00	30.58	L	C
	ATOM	393	CG1	ILE	L	48	8.896	22.342	1.865	1.00	16.40	L	C
	ATOM	394	CG2	ILE	L	48	8.112	21.058	-0.173	1.00	30.40	L	C
	ATOM	395	CD1	ILE	L	48	8.731	23.661	1.216	1.00	27.58	L	C
	ATOM	396	N	TYR	L	49	5.047	20.499	0.052	1.00	26.36	L	N
35	ATOM	397	CA	TYR	L	49	4.260	19.424	-0.568	1.00	28.37	L	C
	ATOM	398	C	TYR	L	49	4.706	19.327	-2.021	1.00	31.64	L	C
	ATOM	399	O	TYR	L	49	5.155	20.318	-2.604	1.00	27.84	L	O
	ATOM	400	CB	TYR	L	49	2.752	19.692	-0.488	1.00	26.55	L	C
	ATOM	401	CG	TYR	L	49	2.286	20.901	-1.257	1.00	28.05	L	C
40	ATOM	402	CD1	TYR	L	49	1.996	20.824	-2.614	1.00	26.50	L	C
	ATOM	403	CD2	TYR	L	49	2.134	22.127	-0.625	1.00	31.29	L	C
	ATOM	404	CE1	TYR	L	49	1.570	21.921	-3.308	1.00	9.37	L	C
	ATOM	405	CE2	TYR	L	49	1.711	23.225	-1.317	1.00	22.71	L	C
	ATOM	406	CZ	TYR	L	49	1.429	23.121	-2.656	1.00	21.56	L	C
45	ATOM	407	OH	TYR	L	49	1.009	24.244	-3.339	1.00	29.15	L	O
	ATOM	408	N	ARG	L	50	4.586	18.121	-2.580	1.00	31.18	L	N
	ATOM	409	CA	ARG	L	50	4.996	17.807	-3.944	1.00	31.83	L	C
	ATOM	410	C	ARG	L	50	6.452	18.210	-4.163	1.00	30.16	L	C
	ATOM	411	O	ARG	L	50	6.785	18.943	-5.091	1.00	36.35	L	O
50	ATOM	412	CB	ARG	L	50	4.075	18.489	-4.965	1.00	35.34	L	C
	ATOM	413	CG	ARG	L	50	3.869	17.654	-6.233	1.00	38.86	L	C
	ATOM	414	CD	ARG	L	50	2.570	18.007	-6.937	1.00	42.11	L	C
	ATOM	415	NE	ARG	L	50	2.621	19.309	-7.604	1.00	47.83	L	N
	ATOM	416	CZ	ARG	L	50	1.635	20.202	-7.586	1.00	61.81	L	C
55	ATOM	417	NH1	ARG	L	50	0.508	19.948	-6.929	1.00	75.42	L	N
	ATOM	418	NH2	ARG	L	50	1.777	21.357	-8.225	1.00	59.09	L	N
	ATOM	419	N	ALA	L	51	7.316	17.735	-3.278	1.00	24.07	L	N
	ATOM	420	CA	ALA	L	51	8.735	18.019	-3.357	1.00	26.98	L	C
	ATOM	421	C	ALA	L	51	9.225	19.452	-3.079	1.00	32.99	L	C
60	ATOM	422	O	ALA	L	51	10.230	19.621	-2.383	1.00	32.33	L	O
	ATOM	423	CB	ALA	L	51	9.264	17.566	-4.698	1.00	23.60	L	C

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ATOM    424  N   SER L  52      8.560  20.483  -3.600  1.00 32.36      L    N
ATOM    425  CA  SER L  52      9.084  21.821  -3.346  1.00 30.41      L    C
ATOM    426  C   SER L  52      8.137  23.006  -3.194  1.00 31.91      L    C
ATOM    427  O   SER L  52      8.527  24.139  -3.433  1.00 34.94      L    O
ATOM    428  CB  SER L  52     10.106  22.167  -4.422  1.00 31.84      L    C
ATOM    429  OG  SER L  52      9.479  22.322  -5.677  1.00 37.85      L    O
ATOM    430  N   ASN L  53      6.906  22.760  -2.779  1.00 32.30      L    N
ATOM    431  CA  ASN L  53      5.944  23.838  -2.609  1.00 24.50      L    C
ATOM    432  C   ASN L  53      5.791  24.229  -1.153  1.00 28.28      L    C
ATOM    433  O   ASN L  53      5.620  23.362  -0.289  1.00 37.53      L    O
ATOM    434  CB  ASN L  53      4.602  23.395  -3.140  1.00 13.31      L    C
ATOM    435  CG  ASN L  53      4.596  23.255  -4.622  1.00 19.61      L    C
ATOM    436  OD1 ASN L  53      4.408  24.233  -5.336  1.00 39.42      L    O
ATOM    437  ND2 ASN L  53      4.813  22.040  -5.110  1.00 18.53      L    N
ATOM    438  N   LEU L  54      5.839  25.525  -0.869  1.00 23.59      L    N
ATOM    439  CA  LEU L  54      5.650  25.916   0.519  1.00 19.73      L    C
ATOM    440  C   LEU L  54      4.169  25.939   0.896  1.00 31.23      L    C
ATOM    441  O   LEU L  54      3.338  26.555   0.242  1.00 34.46      L    O
ATOM    442  CB  LEU L  54      6.253  27.310   0.700  1.00 11.46      L    C
ATOM    443  CG  LEU L  54      6.195  27.789   2.150  1.00 10.41      L    C
ATOM    444  CD1 LEU L  54      7.125  26.991   3.065  1.00 23.59      L    C
ATOM    445  CD2 LEU L  54      6.595  29.256   2.306  1.00 20.82      L    C
ATOM    446  N   GLU L  55      3.840  25.195   1.966  1.00 32.72      L    N
ATOM    447  CA  GLU L  55      2.450  25.231   2.379  1.00 36.54      L    C
ATOM    448  C   GLU L  55      2.042  26.636   2.808  1.00 44.62      L    C
ATOM    449  O   GLU L  55      2.860  27.482   3.137  1.00 50.47      L    O
ATOM    450  CB  GLU L  55      2.289  24.273   3.555  1.00 33.98      L    C
ATOM    451  CG  GLU L  55      0.883  24.310   4.148  1.00 41.02      L    C
ATOM    452  CD  GLU L  55     -0.096  23.783   3.130  1.00 41.65      L    C
ATOM    453  OE1 GLU L  55      0.148  23.949   1.945  1.00 54.51      L    O
ATOM    454  OE2 GLU L  55     -1.080  23.168   3.533  1.00 61.09      L    O
ATOM    455  N   SER L  56      0.728  26.885   2.752  1.00 48.75      L    N
ATOM    456  CA  SER L  56      0.259  28.168   3.246  1.00 41.16      L    C
ATOM    457  C   SER L  56      0.432  28.262   4.758  1.00 39.72      L    C
ATOM    458  O   SER L  56      0.403  27.270   5.475  1.00 47.94      L    O
ATOM    459  CB  SER L  56     -1.214  28.307   2.875  1.00 40.01      L    C
ATOM    460  OG  SER L  56     -1.453  27.637   1.636  1.00 57.19      L    O
ATOM    461  N   GLY L  57      0.576  29.464   5.298  1.00 37.39      L    N
ATOM    462  CA  GLY L  57      0.690  29.617   6.733  1.00 38.10      L    C
ATOM    463  C   GLY L  57      2.056  29.256   7.280  1.00 37.90      L    C
ATOM    464  O   GLY L  57      2.280  29.322   8.487  1.00 48.99      L    O
ATOM    465  N   ILE L  58      2.981  28.867   6.411  1.00 41.88      L    N
ATOM    466  CA  ILE L  58      4.312  28.507   6.869  1.00 33.29      L    C
ATOM    467  C   ILE L  58      5.290  29.584   6.452  1.00 36.39      L    C
ATOM    468  O   ILE L  58      5.241  30.064   5.327  1.00 40.95      L    O
ATOM    469  CB  ILE L  58      4.761  27.151   6.280  1.00 33.81      L    C
ATOM    470  CG1 ILE L  58      3.809  26.051   6.745  1.00 22.67      L    C
ATOM    471  CG2 ILE L  58      6.191  26.817   6.748  1.00 28.57      L    C
ATOM    472  CD1 ILE L  58      3.785  25.886   8.238  1.00 23.54      L    C
ATOM    473  N   PRO L  59      6.197  29.974   7.361  1.00 35.74      L    N
ATOM    474  CA  PRO L  59      7.214  31.007   7.114  1.00 37.66      L    C
ATOM    475  C   PRO L  59      8.000  30.700   5.835  1.00 41.02      L    C
ATOM    476  O   PRO L  59      8.257  29.530   5.525  1.00 39.78      L    O
ATOM    477  CB  PRO L  59      8.107  30.927   8.353  1.00 31.36      L    C
ATOM    478  CG  PRO L  59      7.221  30.346   9.394  1.00 35.70      L    C
ATOM    479  CD  PRO L  59      6.436  29.304   8.649  1.00 32.20      L    C
ATOM    480  N   ALA L  60      8.393  31.736   5.095  1.00 44.34      L    N
ATOM    481  CA  ALA L  60      9.138  31.493   3.868  1.00 41.55      L    C
ATOM    482  C   ALA L  60     10.609  31.228   4.141  1.00 39.49      L    C
ATOM    483  O   ALA L  60     11.470  31.852   3.546  1.00 42.78      L    O
ATOM    484  CB  ALA L  60      8.987  32.655   2.895  1.00 42.73      L    C
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ATOM	485	N	ARG	L	61	10.892	30.314	5.065	1.00	41.36	L	N
ATOM	486	CA	ARG	L	61	12.270	29.941	5.350	1.00	36.65	L	C
ATOM	487	C	ARG	L	61	12.397	28.428	5.355	1.00	30.32	L	C
ATOM	488	O	ARG	L	61	13.152	27.848	6.127	1.00	32.09	L	O
ATOM	489	CB	ARG	L	61	12.774	30.563	6.664	1.00	35.38	L	C
ATOM	490	CG	ARG	L	61	11.819	30.552	7.806	1.00	39.45	L	C
ATOM	491	CD	ARG	L	61	12.451	31.161	9.057	1.00	42.92	L	C
ATOM	492	NE	ARG	L	61	11.723	30.730	10.249	1.00	55.59	L	N
ATOM	493	CZ	ARG	L	61	11.822	29.512	10.774	1.00	47.56	L	C
ATOM	494	NH1	ARG	L	61	12.725	28.668	10.312	1.00	50.56	L	N
ATOM	495	NH2	ARG	L	61	10.997	29.127	11.734	1.00	51.77	L	N
ATOM	496	N	PHE	L	62	11.638	27.810	4.453	1.00	28.28	L	N
ATOM	497	CA	PHE	L	62	11.614	26.365	4.260	1.00	25.29	L	C
ATOM	498	C	PHE	L	62	11.638	26.072	2.755	1.00	22.96	L	C
ATOM	499	O	PHE	L	62	11.133	26.860	1.970	1.00	33.28	L	O
ATOM	500	CB	PHE	L	62	10.343	25.784	4.883	1.00	31.62	L	C
ATOM	501	CG	PHE	L	62	10.393	25.672	6.379	1.00	25.29	L	C
ATOM	502	CD1	PHE	L	62	11.066	24.623	6.983	1.00	22.72	L	C
ATOM	503	CD2	PHE	L	62	9.767	26.617	7.182	1.00	24.93	L	C
ATOM	504	CE1	PHE	L	62	11.110	24.526	8.365	1.00	41.78	L	C
ATOM	505	CE2	PHE	L	62	9.809	26.522	8.561	1.00	30.52	L	C
ATOM	506	CZ	PHE	L	62	10.478	25.483	9.154	1.00	23.52	L	C
ATOM	507	N	SER	L	63	12.205	24.953	2.333	1.00	23.17	L	N
ATOM	508	CA	SER	L	63	12.238	24.676	0.902	1.00	30.22	L	C
ATOM	509	C	SER	L	63	12.633	23.247	0.612	1.00	27.52	L	C
ATOM	510	O	SER	L	63	13.326	22.629	1.402	1.00	33.38	L	O
ATOM	511	CB	SER	L	63	13.227	25.617	0.198	1.00	38.88	L	C
ATOM	512	OG	SER	L	63	14.579	25.316	0.539	1.00	46.56	L	O
ATOM	513	N	GLY	L	64	12.212	22.724	-0.531	1.00	24.58	L	N
ATOM	514	CA	GLY	L	64	12.563	21.357	-0.861	1.00	30.22	L	C
ATOM	515	C	GLY	L	64	12.896	21.134	-2.328	1.00	33.27	L	C
ATOM	516	O	GLY	L	64	12.524	21.935	-3.180	1.00	36.12	L	O
ATOM	517	N	SER	L	65	13.610	20.050	-2.624	1.00	33.35	L	N
ATOM	518	CA	SER	L	65	13.961	19.728	-4.000	1.00	38.52	L	C
ATOM	519	C	SER	L	65	14.327	18.256	-4.147	1.00	36.43	L	C
ATOM	520	O	SER	L	65	14.558	17.561	-3.160	1.00	42.08	L	O
ATOM	521	CB	SER	L	65	15.120	20.601	-4.487	1.00	37.34	L	C
ATOM	522	OG	SER	L	65	16.285	20.339	-3.742	1.00	50.72	L	O
ATOM	523	N	GLY	L	66	14.366	17.798	-5.395	1.00	33.13	L	N
ATOM	524	CA	GLY	L	66	14.684	16.421	-5.690	1.00	31.58	L	C
ATOM	525	C	GLY	L	66	13.681	15.847	-6.671	1.00	36.03	L	C
ATOM	526	O	GLY	L	66	12.821	16.550	-7.178	1.00	37.03	L	O
ATOM	527	N	SER	L	67	13.801	14.563	-6.954	1.00	39.41	L	N
ATOM	528	CA	SER	L	67	12.885	13.900	-7.855	1.00	44.59	L	C
ATOM	529	C	SER	L	67	13.192	12.420	-7.790	1.00	49.82	L	C
ATOM	530	O	SER	L	67	14.104	12.000	-7.076	1.00	48.37	L	O
ATOM	531	CB	SER	L	67	13.042	14.423	-9.284	1.00	48.35	L	C
ATOM	532	OG	SER	L	67	14.309	14.105	-9.835	1.00	56.59	L	O
ATOM	533	N	ARG	L	68	12.421	11.636	-8.531	1.00	52.66	L	N
ATOM	534	CA	ARG	L	68	12.605	10.183	-8.578	1.00	54.25	L	C
ATOM	535	C	ARG	L	68	12.825	9.569	-7.185	1.00	47.35	L	C
ATOM	536	O	ARG	L	68	11.904	9.098	-6.533	1.00	45.82	L	O
ATOM	537	CB	ARG	L	68	13.806	9.887	-9.475	1.00	61.56	L	C
ATOM	538	CG	ARG	L	68	13.389	9.548	-10.906	1.00	72.12	L	C
ATOM	539	CD	ARG	L	68	13.851	8.145	-11.319	1.00	89.41	L	C
ATOM	540	NE	ARG	L	68	14.580	7.503	-10.223	1.00	103.03	L	N
ATOM	541	CZ	ARG	L	68	14.446	6.171	-10.089	1.00	112.09	L	C
ATOM	542	NH1	ARG	L	68	13.684	5.491	-10.928	1.00	118.70	L	N
ATOM	543	NH2	ARG	L	68	15.095	5.537	-9.107	1.00	113.31	L	N
ATOM	544	N	THR	L	69	14.068	9.569	-6.708	1.00	39.62	L	N
ATOM	545	CA	THR	L	69	14.349	8.946	-5.419	1.00	40.58	L	C

ATOM	546	C	THR	L	69	15.110	9.743	-4.364	1.00	40.89	L	C
ATOM	547	O	THR	L	69	15.193	9.316	-3.217	1.00	39.24	L	O
ATOM	548	CB	THR	L	69	15.099	7.629	-5.618	1.00	46.72	L	C
ATOM	549	OG1	THR	L	69	16.296	7.873	-6.375	1.00	58.12	L	O
ATOM	550	CG2	THR	L	69	14.218	6.631	-6.357	1.00	45.58	L	C
ATOM	551	N	ASP	L	70	15.678	10.882	-4.736	1.00	44.06	L	N
ATOM	552	CA	ASP	L	70	16.414	11.687	-3.767	1.00	44.09	L	C
ATOM	553	C	ASP	L	70	15.686	12.997	-3.548	1.00	42.38	L	C
ATOM	554	O	ASP	L	70	15.227	13.618	-4.507	1.00	41.69	L	O
ATOM	555	CB	ASP	L	70	17.829	12.014	-4.258	1.00	52.55	L	C
ATOM	556	CG	ASP	L	70	18.757	10.821	-4.248	1.00	58.23	L	C
ATOM	557	OD1	ASP	L	70	19.971	11.055	-4.428	1.00	72.20	L	O
ATOM	558	OD2	ASP	L	70	18.296	9.670	-4.073	1.00	56.43	L	O
ATOM	559	N	PHE	L	71	15.599	13.417	-2.286	1.00	31.65	L	N
ATOM	560	CA	PHE	L	71	14.999	14.688	-1.908	1.00	28.67	L	C
ATOM	561	C	PHE	L	71	15.713	15.299	-0.705	1.00	28.28	L	C
ATOM	562	O	PHE	L	71	16.458	14.650	0.018	1.00	33.98	L	O
ATOM	563	CB	PHE	L	71	13.526	14.449	-1.567	1.00	25.73	L	C
ATOM	564	CG	PHE	L	71	12.839	13.782	-2.718	1.00	32.61	L	C
ATOM	565	CD1	PHE	L	71	12.658	12.404	-2.703	1.00	28.95	L	C
ATOM	566	CD2	PHE	L	71	12.364	14.540	-3.776	1.00	22.54	L	C
ATOM	567	CE1	PHE	L	71	11.994	11.786	-3.752	1.00	43.28	L	C
ATOM	568	CE2	PHE	L	71	11.696	13.912	-4.823	1.00	33.39	L	C
ATOM	569	CZ	PHE	L	71	11.510	12.535	-4.816	1.00	23.28	L	C
ATOM	570	N	THR	L	72	15.490	16.609	-0.532	1.00	23.10	L	N
ATOM	571	CA	THR	L	72	16.108	17.295	0.591	1.00	30.26	L	C
ATOM	572	C	THR	L	72	15.271	18.488	1.041	1.00	28.38	L	C
ATOM	573	O	THR	L	72	14.699	19.228	0.249	1.00	37.55	L	O
ATOM	574	CB	THR	L	72	17.496	17.769	0.155	1.00	25.36	L	C
ATOM	575	OG1	THR	L	72	17.355	18.682	-0.936	1.00	51.91	L	O
ATOM	576	CG2	THR	L	72	18.335	16.574	-0.303	1.00	41.87	L	C
ATOM	577	N	LEU	L	73	15.178	18.634	2.372	1.00	31.36	L	N
ATOM	578	CA	LEU	L	73	14.474	19.780	2.920	1.00	30.10	L	C
ATOM	579	C	LEU	L	73	15.456	20.784	3.522	1.00	28.13	L	C
ATOM	580	O	LEU	L	73	16.310	20.454	4.334	1.00	30.08	L	O
ATOM	581	CB	LEU	L	73	13.509	19.274	3.996	1.00	37.24	L	C
ATOM	582	CG	LEU	L	73	13.010	20.393	4.915	1.00	24.15	L	C
ATOM	583	CD1	LEU	L	73	11.826	21.151	4.313	1.00	21.16	L	C
ATOM	584	CD2	LEU	L	73	12.540	19.880	6.277	1.00	25.70	L	C
ATOM	585	N	THR	L	74	15.395	22.054	3.158	1.00	34.02	L	N
ATOM	586	CA	THR	L	74	16.418	23.013	3.610	1.00	29.77	L	C
ATOM	587	C	THR	L	74	15.816	24.170	4.400	1.00	31.14	L	C
ATOM	588	O	THR	L	74	14.888	24.828	3.978	1.00	43.23	L	O
ATOM	589	CB	THR	L	74	17.016	23.586	2.382	1.00	29.59	L	C
ATOM	590	OG1	THR	L	74	17.206	22.556	1.474	1.00	42.71	L	O
ATOM	591	CG2	THR	L	74	18.371	24.266	2.641	1.00	10.54	L	C
ATOM	592	N	ILE	L	75	16.364	24.361	5.587	1.00	34.45	L	N
ATOM	593	CA	ILE	L	75	15.775	25.436	6.333	1.00	41.45	L	C
ATOM	594	C	ILE	L	75	16.807	26.527	6.632	1.00	41.83	L	C
ATOM	595	O	ILE	L	75	17.713	26.346	7.402	1.00	43.17	L	O
ATOM	596	CB	ILE	L	75	15.112	24.818	7.549	1.00	44.27	L	C
ATOM	597	CG1	ILE	L	75	15.596	25.432	8.817	1.00	44.83	L	C
ATOM	598	CG2	ILE	L	75	15.370	23.303	7.635	1.00	49.07	L	C
ATOM	599	CD1	ILE	L	75	14.424	25.873	9.656	1.00	34.16	L	C
ATOM	600	N	ASN	L	76	16.646	27.635	5.919	1.00	40.24	L	N
ATOM	601	CA	ASN	L	76	17.489	28.819	5.986	1.00	35.58	L	C
ATOM	602	C	ASN	L	76	16.652	30.087	6.164	1.00	39.86	L	C
ATOM	603	O	ASN	L	76	15.850	30.465	5.317	1.00	46.58	L	O
ATOM	604	CB	ASN	L	76	18.282	28.894	4.679	1.00	36.33	L	C
ATOM	605	CG	ASN	L	76	19.497	29.764	4.867	1.00	39.90	L	C
ATOM	606	OD1	ASN	L	76	19.789	30.248	5.957	1.00	40.70	L	O

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ATOM	607	ND2	ASN	L	76	20.225	29.964	3.756	1.00	38.22	L	N
ATOM	608	N	PRO	L	77	16.833	30.740	7.330	1.00	38.97	L	N
ATOM	609	CA	PRO	L	77	17.746	30.270	8.355	1.00	42.09	L	C
ATOM	610	C	PRO	L	77	17.024	29.423	9.410	1.00	41.44	L	C
ATOM	611	O	PRO	L	77	15.813	29.239	9.389	1.00	46.26	L	O
ATOM	612	CB	PRO	L	77	18.294	31.528	9.020	1.00	43.72	L	C
ATOM	613	CG	PRO	L	77	17.252	32.636	8.840	1.00	34.23	L	C
ATOM	614	CD	PRO	L	77	16.244	31.990	7.769	1.00	40.31	L	C
ATOM	615	N	VAL	L	78	17.828	28.875	10.340	1.00	38.94	L	N
ATOM	616	CA	VAL	L	78	17.249	28.098	11.432	1.00	32.51	L	C
ATOM	617	C	VAL	L	78	16.892	29.001	12.617	1.00	37.03	L	C
ATOM	618	O	VAL	L	78	17.467	30.059	12.828	1.00	39.75	L	O
ATOM	619	CB	VAL	L	78	18.276	27.052	11.871	1.00	28.69	L	C
ATOM	620	CG1	VAL	L	78	17.923	26.534	13.267	1.00	19.40	L	C
ATOM	621	CG2	VAL	L	78	18.292	25.890	10.894	1.00	29.97	L	C
ATOM	622	N	GLU	L	79	15.874	28.566	13.386	1.00	38.02	L	N
ATOM	623	CA	GLU	L	79	15.482	29.378	14.537	1.00	27.34	L	C
ATOM	624	C	GLU	L	79	15.120	28.517	15.754	1.00	34.89	L	C
ATOM	625	O	GLU	L	79	14.910	27.315	15.657	1.00	38.06	L	O
ATOM	626	CB	GLU	L	79	14.282	30.235	14.130	1.00	16.08	L	C
ATOM	627	CG	GLU	L	79	14.702	31.568	13.507	1.00	50.15	L	C
ATOM	628	CD	GLU	L	79	13.474	32.414	13.257	1.00	65.88	L	C
ATOM	629	OE1	GLU	L	79	13.604	33.478	12.669	1.00	80.47	L	O
ATOM	630	OE2	GLU	L	79	12.388	31.997	13.658	1.00	78.67	L	O
ATOM	631	N	ALA	L	80	15.115	29.190	16.923	1.00	39.01	L	N
ATOM	632	CA	ALA	L	80	14.912	28.483	18.188	1.00	34.33	L	C
ATOM	633	C	ALA	L	80	13.650	27.611	18.188	1.00	39.68	L	C
ATOM	634	O	ALA	L	80	13.626	26.506	18.717	1.00	52.15	L	O
ATOM	635	CB	ALA	L	80	14.823	29.530	19.299	1.00	28.88	L	C
ATOM	636	N	ASP	L	81	12.588	28.135	17.590	1.00	38.66	L	N
ATOM	637	CA	ASP	L	81	11.303	27.455	17.561	1.00	40.47	L	C
ATOM	638	C	ASP	L	81	11.194	26.376	16.478	1.00	36.22	L	C
ATOM	639	O	ASP	L	81	10.126	25.821	16.228	1.00	41.23	L	O
ATOM	640	CB	ASP	L	81	10.196	28.505	17.410	1.00	42.43	L	C
ATOM	641	CG	ASP	L	81	8.824	27.892	17.263	1.00	57.83	L	C
ATOM	642	OD1	ASP	L	81	8.398	27.135	18.170	1.00	69.72	L	O
ATOM	643	OD2	ASP	L	81	8.173	28.172	16.231	1.00	68.60	L	O
ATOM	644	N	ASP	L	82	12.305	26.064	15.838	1.00	30.22	L	N
ATOM	645	CA	ASP	L	82	12.273	25.043	14.817	1.00	28.43	L	C
ATOM	646	C	ASP	L	82	12.670	23.660	15.349	1.00	29.30	L	C
ATOM	647	O	ASP	L	82	12.728	22.691	14.589	1.00	27.94	L	O
ATOM	648	CB	ASP	L	82	13.165	25.454	13.643	1.00	31.74	L	C
ATOM	649	CG	ASP	L	82	12.662	26.704	12.950	1.00	31.05	L	C
ATOM	650	OD1	ASP	L	82	11.432	26.853	12.823	1.00	45.58	L	O
ATOM	651	OD2	ASP	L	82	13.488	27.533	12.521	1.00	50.64	L	O
ATOM	652	N	VAL	L	83	12.952	23.562	16.646	1.00	28.22	L	N
ATOM	653	CA	VAL	L	83	13.293	22.263	17.201	1.00	33.72	L	C
ATOM	654	C	VAL	L	83	12.097	21.348	16.997	1.00	28.29	L	C
ATOM	655	O	VAL	L	83	10.978	21.655	17.417	1.00	20.55	L	O
ATOM	656	CB	VAL	L	83	13.637	22.313	18.717	1.00	34.51	L	C
ATOM	657	CG1	VAL	L	83	14.877	23.162	18.932	1.00	57.28	L	C
ATOM	658	CG2	VAL	L	83	12.471	22.856	19.516	1.00	38.24	L	C
ATOM	659	N	ALA	L	84	12.348	20.225	16.337	1.00	27.89	L	N
ATOM	660	CA	ALA	L	84	11.303	19.274	16.033	1.00	19.99	L	C
ATOM	661	C	ALA	L	84	11.903	18.093	15.293	1.00	25.39	L	C
ATOM	662	O	ALA	L	84	13.117	18.001	15.103	1.00	25.68	L	O
ATOM	663	CB	ALA	L	84	10.265	19.940	15.150	1.00	22.54	L	C
ATOM	664	N	THR	L	85	11.042	17.171	14.893	1.00	34.15	L	N
ATOM	665	CA	THR	L	85	11.492	16.045	14.104	1.00	37.68	L	C
ATOM	666	C	THR	L	85	10.798	16.295	12.773	1.00	36.49	L	C
ATOM	667	O	THR	L	85	9.630	16.689	12.740	1.00	36.43	L	O

ATOM	668	CB	THR	L	85	11.065	14.685	14.705	1.00	36.97	L	C
ATOM	669	OG1	THR	L	85	11.703	14.518	15.974	1.00	43.47	L	O
ATOM	670	CG2	THR	L	85	11.483	13.540	13.799	1.00	18.61	L	C
ATOM	671	N	TYR	L	86	11.531	16.094	11.685	1.00	29.71	L	N
ATOM	672	CA	TYR	L	86	11.001	16.324	10.362	1.00	19.30	L	C
ATOM	673	C	TYR	L	86	10.879	15.017	9.616	1.00	22.60	L	C
ATOM	674	O	TYR	L	86	11.814	14.226	9.588	1.00	26.94	L	O
ATOM	675	CB	TYR	L	86	11.917	17.306	9.621	1.00	20.29	L	C
ATOM	676	CG	TYR	L	86	11.931	18.678	10.264	1.00	17.43	L	C
ATOM	677	CD1	TYR	L	86	12.627	18.908	11.430	1.00	9.96	L	C
ATOM	678	CD2	TYR	L	86	11.183	19.726	9.734	1.00	18.42	L	C
ATOM	679	CE1	TYR	L	86	12.574	20.136	12.054	1.00	25.73	L	C
ATOM	680	CE2	TYR	L	86	11.126	20.951	10.347	1.00	10.31	L	C
ATOM	681	CZ	TYR	L	86	11.823	21.153	11.509	1.00	24.98	L	C
ATOM	682	OH	TYR	L	86	11.772	22.378	12.137	1.00	26.22	L	O
ATOM	683	N	TYR	L	87	9.721	14.787	9.012	1.00	25.84	L	N
ATOM	684	CA	TYR	L	87	9.495	13.550	8.275	1.00	29.22	L	C
ATOM	685	C	TYR	L	87	9.097	13.742	6.828	1.00	29.46	L	C
ATOM	686	O	TYR	L	87	8.299	14.619	6.513	1.00	34.41	L	O
ATOM	687	CB	TYR	L	87	8.370	12.715	8.897	1.00	30.13	L	C
ATOM	688	CG	TYR	L	87	8.442	12.448	10.381	1.00	37.49	L	C
ATOM	689	CD1	TYR	L	87	8.122	13.440	11.304	1.00	23.56	L	C
ATOM	690	CD2	TYR	L	87	8.755	11.180	10.857	1.00	20.61	L	C
ATOM	691	CE1	TYR	L	87	8.108	13.168	12.651	1.00	30.25	L	C
ATOM	692	CE2	TYR	L	87	8.742	10.900	12.201	1.00	29.15	L	C
ATOM	693	CZ	TYR	L	87	8.418	11.894	13.093	1.00	38.77	L	C
ATOM	694	OH	TYR	L	87	8.411	11.612	14.438	1.00	53.01	L	O
ATOM	695	N	CYS	L	88	9.646	12.909	5.949	1.00	36.95	L	N
ATOM	696	CA	CYS	L	88	9.243	12.950	4.555	1.00	36.03	L	C
ATOM	697	C	CYS	L	88	8.105	11.924	4.423	1.00	34.89	L	C
ATOM	698	O	CYS	L	88	7.938	11.047	5.271	1.00	39.85	L	O
ATOM	699	CB	CYS	L	88	10.407	12.624	3.600	1.00	32.83	L	C
ATOM	700	SG	CYS	L	88	11.475	11.173	3.916	1.00	43.40	L	S
ATOM	701	N	GLN	L	89	7.302	12.058	3.380	1.00	30.65	L	N
ATOM	702	CA	GLN	L	89	6.192	11.151	3.167	1.00	30.50	L	C
ATOM	703	C	GLN	L	89	5.920	11.109	1.675	1.00	32.47	L	C
ATOM	704	O	GLN	L	89	5.987	12.129	0.995	1.00	32.80	L	O
ATOM	705	CB	GLN	L	89	4.961	11.652	3.945	1.00	30.53	L	C
ATOM	706	CG	GLN	L	89	3.695	10.818	3.821	1.00	22.52	L	C
ATOM	707	CD	GLN	L	89	2.779	11.312	2.724	1.00	21.93	L	C
ATOM	708	OE1	GLN	L	89	2.455	12.494	2.670	1.00	30.39	L	O
ATOM	709	NE2	GLN	L	89	2.349	10.408	1.843	1.00	37.87	L	N
ATOM	710	N	GLN	L	90	5.647	9.921	1.159	1.00	31.97	L	N
ATOM	711	CA	GLN	L	90	5.364	9.794	-0.260	1.00	38.12	L	C
ATOM	712	C	GLN	L	90	3.872	9.464	-0.365	1.00	39.89	L	C
ATOM	713	O	GLN	L	90	3.246	8.993	0.575	1.00	41.18	L	O
ATOM	714	CB	GLN	L	90	6.352	8.823	-0.923	1.00	31.71	L	C
ATOM	715	CG	GLN	L	90	6.391	7.458	-0.303	1.00	40.36	L	C
ATOM	716	CD	GLN	L	90	5.263	6.565	-0.773	1.00	39.74	L	C
ATOM	717	OE1	GLN	L	90	4.831	6.655	-1.921	1.00	36.34	L	O
ATOM	718	NE2	GLN	L	90	4.765	5.711	0.116	1.00	46.02	L	N
ATOM	719	N	SER	L	91	3.353	9.760	-1.570	1.00	36.91	L	N
ATOM	720	CA	SER	L	91	1.948	9.472	-1.784	1.00	41.30	L	C
ATOM	721	C	SER	L	91	1.791	8.953	-3.225	1.00	39.89	L	C
ATOM	722	O	SER	L	91	0.731	9.043	-3.842	1.00	44.63	L	O
ATOM	723	CB	SER	L	91	1.013	10.688	-1.596	1.00	40.49	L	C
ATOM	724	OG	SER	L	91	1.407	11.742	-2.446	1.00	44.85	L	O
ATOM	725	N	ASN	L	92	2.877	8.390	-3.735	1.00	40.08	L	N
ATOM	726	CA	ASN	L	92	2.896	7.879	-5.091	1.00	40.12	L	C
ATOM	727	C	ASN	L	92	2.465	6.427	-5.208	1.00	41.27	L	C
ATOM	728	O	ASN	L	92	1.930	6.019	-6.234	1.00	39.94	L	O

	ATOM	729	CB	ASN	L	92	4.291	8.044	-5.676	1.00	42.77	L C
	ATOM	730	CG	ASN	L	92	4.349	7.649	-7.118	1.00	45.02	L C
	ATOM	731	OD1	ASN	L	92	3.502	8.057	-7.911	1.00	47.49	L O
	ATOM	732	ND2	ASN	L	92	5.344	6.842	-7.473	1.00	58.39	L N
5	ATOM	733	N	GLU	L	93	2.711	5.644	-4.166	1.00	41.39	L N
	ATOM	734	CA	GLU	L	93	2.326	4.236	-4.167	1.00	48.66	L C
	ATOM	735	C	GLU	L	93	1.677	3.914	-2.829	1.00	48.42	L C
	ATOM	736	O	GLU	L	93	1.986	4.537	-1.821	1.00	50.64	L O
	ATOM	737	CB	GLU	L	93	3.553	3.328	-4.338	1.00	55.59	L C
10	ATOM	738	CG	GLU	L	93	4.476	3.649	-5.515	1.00	62.95	L C
	ATOM	739	CD	GLU	L	93	3.974	3.106	-6.838	1.00	78.92	L C
	ATOM	740	OE1	GLU	L	93	4.737	3.164	-7.832	1.00	84.87	L O
	ATOM	741	OE2	GLU	L	93	2.821	2.623	-6.887	1.00	81.56	L O
	ATOM	742	N	ASP	L	94	0.774	2.943	-2.822	1.00	49.35	L N
15	ATOM	743	CA	ASP	L	94	0.121	2.531	-1.588	1.00	51.37	L C
	ATOM	744	C	ASP	L	94	0.883	1.323	-1.053	1.00	50.25	L C
	ATOM	745	O	ASP	L	94	1.332	0.473	-1.823	1.00	50.31	L O
	ATOM	746	CB	ASP	L	94	-1.334	2.158	-1.856	1.00	49.09	L C
	ATOM	747	CG	ASP	L	94	-2.158	3.346	-2.316	1.00	69.28	L C
20	ATOM	748	OD1	ASP	L	94	-1.734	4.029	-3.280	1.00	79.28	L O
	ATOM	749	OD2	ASP	L	94	-3.229	3.597	-1.717	1.00	83.48	L O
	ATOM	750	N	PRO	L	95	1.047	1.234	0.275	1.00	46.17	L N
	ATOM	751	CA	PRO	L	95	0.553	2.202	1.255	1.00	45.81	L C
	ATOM	752	C	PRO	L	95	1.474	3.404	1.368	1.00	44.56	L C
25	ATOM	753	O	PRO	L	95	2.689	3.244	1.381	1.00	49.31	L O
	ATOM	754	CB	PRO	L	95	0.532	1.389	2.535	1.00	49.20	L C
	ATOM	755	CG	PRO	L	95	1.764	0.558	2.379	1.00	42.46	L C
	ATOM	756	CD	PRO	L	95	1.691	0.095	0.950	1.00	44.07	L C
	ATOM	757	N	TRP	L	96	0.898	4.600	1.446	1.00	39.90	L N
30	ATOM	758	CA	TRP	L	96	1.692	5.814	1.575	1.00	33.94	L C
	ATOM	759	C	TRP	L	96	2.572	5.666	2.798	1.00	32.06	L C
	ATOM	760	O	TRP	L	96	2.085	5.410	3.898	1.00	34.49	L O
	ATOM	761	CB	TRP	L	96	0.783	7.032	1.716	1.00	33.74	L C
	ATOM	762	CG	TRP	L	96	0.087	7.384	0.438	1.00	40.68	L C
35	ATOM	763	CD1	TRP	L	96	0.093	6.667	-0.717	1.00	32.69	L C
	ATOM	764	CD2	TRP	L	96	-0.764	8.515	0.202	1.00	45.95	L C
	ATOM	765	NE1	TRP	L	96	-0.702	7.273	-1.654	1.00	35.93	L N
	ATOM	766	CE2	TRP	L	96	-1.239	8.411	-1.115	1.00	35.73	L C
	ATOM	767	CE3	TRP	L	96	-1.169	9.605	0.978	1.00	46.81	L C
40	ATOM	768	CZ2	TRP	L	96	-2.094	9.346	-1.674	1.00	44.57	L C
	ATOM	769	CZ3	TRP	L	96	-2.022	10.538	0.416	1.00	41.43	L C
	ATOM	770	CH2	TRP	L	96	-2.473	10.401	-0.897	1.00	42.28	L C
	ATOM	771	N	THR	L	97	3.874	5.830	2.605	1.00	22.72	L N
	ATOM	772	CA	THR	L	97	4.810	5.661	3.702	1.00	20.77	L C
45	ATOM	773	C	THR	L	97	5.530	6.928	4.159	1.00	25.09	L C
	ATOM	774	O	THR	L	97	5.689	7.888	3.400	1.00	34.55	L O
	ATOM	775	CB	THR	L	97	5.821	4.568	3.350	1.00	12.22	L C
	ATOM	776	OG1	THR	L	97	6.443	4.876	2.106	1.00	27.43	L O
	ATOM	777	CG2	THR	L	97	5.123	3.263	3.179	1.00	16.82	L C
50	ATOM	778	N	PHE	L	98	5.934	6.931	5.423	1.00	23.17	L N
	ATOM	779	CA	PHE	L	98	6.630	8.067	6.002	1.00	26.77	L C
	ATOM	780	C	PHE	L	98	8.092	7.744	6.256	1.00	34.08	L C
	ATOM	781	O	PHE	L	98	8.446	6.612	6.588	1.00	40.23	L O
	ATOM	782	CB	PHE	L	98	6.026	8.457	7.350	1.00	26.01	L C
55	ATOM	783	CG	PHE	L	98	4.716	9.169	7.263	1.00	23.16	L C
	ATOM	784	CD1	PHE	L	98	3.546	8.471	7.010	1.00	21.59	L C
	ATOM	785	CD2	PHE	L	98	4.648	10.534	7.506	1.00	22.33	L C
	ATOM	786	CE1	PHE	L	98	2.331	9.109	7.009	1.00	17.66	L C
	ATOM	787	CE2	PHE	L	98	3.428	11.192	7.506	1.00	30.19	L C
60	ATOM	788	CZ	PHE	L	98	2.263	10.476	7.260	1.00	36.03	L C
	ATOM	789	N	GLY	L	99	8.944	8.748	6.112	1.00	37.98	L N

ATOM	790	CA	GLY	L	99	10.346	8.532	6.389	1.00	37.48	L	C
ATOM	791	C	GLY	L	99	10.449	8.396	7.895	1.00	34.91	L	C
ATOM	792	O	GLY	L	99	9.557	8.831	8.622	1.00	38.68	L	O
ATOM	793	N	GLY	L	100	11.532	7.792	8.362	1.00	36.84	L	N
ATOM	794	CA	GLY	L	100	11.726	7.594	9.784	1.00	36.30	L	C
ATOM	795	C	GLY	L	100	11.894	8.862	10.587	1.00	34.70	L	C
ATOM	796	O	GLY	L	100	11.850	8.808	11.809	1.00	37.11	L	O
ATOM	797	N	GLY	L	101	12.096	9.993	9.914	1.00	37.37	L	N
ATOM	798	CA	GLY	L	101	12.244	11.267	10.611	1.00	34.43	L	C
ATOM	799	C	GLY	L	101	13.650	11.761	10.964	1.00	31.97	L	C
ATOM	800	O	GLY	L	101	14.584	10.981	11.156	1.00	31.95	L	O
ATOM	801	N	THR	L	102	13.809	13.075	11.045	1.00	26.36	L	N
ATOM	802	CA	THR	L	102	15.099	13.630	11.447	1.00	26.88	L	C
ATOM	803	C	THR	L	102	14.966	14.643	12.590	1.00	33.12	L	C
ATOM	804	O	THR	L	102	14.243	15.628	12.513	1.00	43.00	L	O
ATOM	805	CB	THR	L	102	15.736	14.302	10.231	1.00	27.40	L	C
ATOM	806	OG1	THR	L	102	16.027	13.300	9.256	1.00	42.19	L	O
ATOM	807	CG2	THR	L	102	17.044	14.985	10.641	1.00	27.02	L	C
ATOM	808	N	LYS	L	103	15.680	14.344	13.691	1.00	34.75	L	N
ATOM	809	CA	LYS	L	103	15.643	15.234	14.845	1.00	37.63	L	C
ATOM	810	C	LYS	L	103	16.573	16.435	14.655	1.00	34.36	L	C
ATOM	811	O	LYS	L	103	17.748	16.307	14.345	1.00	42.52	L	O
ATOM	812	CB	LYS	L	103	16.069	14.433	16.075	1.00	39.61	L	C
ATOM	813	CG	LYS	L	103	14.997	14.419	17.165	1.00	60.51	L	C
ATOM	814	CD	LYS	L	103	15.610	14.460	18.567	1.00	81.15	L	C
ATOM	815	CE	LYS	L	103	14.873	13.561	19.566	1.00	89.92	L	C
ATOM	816	NZ	LYS	L	103	15.498	13.689	20.882	1.00	87.84	L	N
ATOM	817	N	LEU	L	104	15.990	17.639	14.815	1.00	35.10	L	N
ATOM	818	CA	LEU	L	104	16.781	18.856	14.684	1.00	36.62	L	C
ATOM	819	C	LEU	L	104	16.987	19.533	16.045	1.00	33.72	L	C
ATOM	820	O	LEU	L	104	16.046	19.828	16.770	1.00	39.22	L	O
ATOM	821	CB	LEU	L	104	16.027	19.791	13.731	1.00	40.97	L	C
ATOM	822	CG	LEU	L	104	16.698	21.156	13.559	1.00	36.66	L	C
ATOM	823	CD1	LEU	L	104	18.031	21.069	12.812	1.00	43.72	L	C
ATOM	824	CD2	LEU	L	104	15.830	22.140	12.772	1.00	37.07	L	C
ATOM	825	N	GLU	L	105	18.238	19.751	16.437	1.00	41.16	L	N
ATOM	826	CA	GLU	L	105	18.596	20.461	17.664	1.00	40.54	L	C
ATOM	827	C	GLU	L	105	19.421	21.719	17.371	1.00	37.89	L	C
ATOM	828	O	GLU	L	105	20.169	21.804	16.404	1.00	40.95	L	O
ATOM	829	CB	GLU	L	105	19.387	19.507	18.564	1.00	42.35	L	C
ATOM	830	CG	GLU	L	105	20.901	19.663	18.407	1.00	73.68	L	C
ATOM	831	CD	GLU	L	105	21.554	19.582	19.768	1.00	84.81	L	C
ATOM	832	OE1	GLU	L	105	21.525	20.570	20.491	1.00	80.17	L	O
ATOM	833	OE2	GLU	L	105	22.080	18.519	20.101	1.00	87.53	L	O
ATOM	834	N	ILE	L	106	19.229	22.737	18.229	1.00	36.04	L	N
ATOM	835	CA	ILE	L	106	19.880	24.019	17.981	1.00	42.09	L	C
ATOM	836	C	ILE	L	106	21.054	24.258	18.933	1.00	43.14	L	C
ATOM	837	O	ILE	L	106	20.938	24.188	20.148	1.00	41.05	L	O
ATOM	838	CB	ILE	L	106	18.833	25.123	18.154	1.00	37.55	L	C
ATOM	839	CG1	ILE	L	106	18.110	25.383	16.829	1.00	47.08	L	C
ATOM	840	CG2	ILE	L	106	19.520	26.432	18.579	1.00	49.18	L	C
ATOM	841	CD1	ILE	L	106	16.795	24.610	16.726	1.00	53.81	L	C
ATOM	842	N	LYS	L	107	22.235	24.505	18.331	1.00	43.16	L	N
ATOM	843	CA	LYS	L	107	23.426	24.732	19.142	1.00	42.21	L	C
ATOM	844	C	LYS	L	107	23.359	26.065	19.892	1.00	45.78	L	C
ATOM	845	O	LYS	L	107	23.424	27.140	19.311	1.00	52.84	L	O
ATOM	846	CB	LYS	L	107	24.645	24.716	18.219	1.00	43.56	L	C
ATOM	847	CG	LYS	L	107	24.960	23.313	17.696	1.00	41.44	L	C
ATOM	848	CD	LYS	L	107	26.185	23.302	16.778	1.00	36.40	L	C
ATOM	849	CE	LYS	L	107	26.513	21.899	16.261	1.00	60.78	L	C
ATOM	850	NZ	LYS	L	107	27.650	21.965	15.344	1.00	61.58	L	N

ATOM	851	N	LYS	L	108	23.271	25.992	21.213	1.00	51.53	L	N
ATOM	852	CA	LYS	L	108	23.241	27.168	22.068	1.00	46.01	L	C
ATOM	853	C	LYS	L	108	24.585	27.279	22.779	1.00	51.04	L	C
ATOM	854	O	LYS	L	108	25.443	26.395	22.653	1.00	52.80	L	O
ATOM	855	CB	LYS	L	108	22.125	27.015	23.106	1.00	40.77	L	C
ATOM	856	CG	LYS	L	108	22.058	28.136	24.099	1.00	40.59	L	C
ATOM	857	CD	LYS	L	108	21.059	27.871	25.178	1.00	24.84	L	C
ATOM	858	CE	LYS	L	108	21.135	28.956	26.237	1.00	44.44	L	C
ATOM	859	NZ	LYS	L	108	22.525	29.139	26.754	1.00	37.04	L	N
ATOM	860	N	ALA	L	109	24.774	28.370	23.513	1.00	52.73	L	N
ATOM	861	CA	ALA	L	109	26.000	28.567	24.273	1.00	52.89	L	C
ATOM	862	C	ALA	L	109	25.841	27.746	25.539	1.00	52.68	L	C
ATOM	863	O	ALA	L	109	24.728	27.608	26.052	1.00	47.67	L	O
ATOM	864	CB	ALA	L	109	26.177	30.033	24.626	1.00	55.47	L	C
ATOM	865	N	ASP	L	110	26.944	27.200	26.039	1.00	52.11	L	N
ATOM	866	CA	ASP	L	110	26.902	26.392	27.252	1.00	48.45	L	C
ATOM	867	C	ASP	L	110	26.142	27.082	28.385	1.00	47.36	L	C
ATOM	868	O	ASP	L	110	26.241	28.294	28.580	1.00	43.93	L	O
ATOM	869	CB	ASP	L	110	28.320	26.060	27.715	1.00	43.82	L	C
ATOM	870	CG	ASP	L	110	29.003	25.027	26.829	1.00	58.57	L	C
ATOM	871	OD1	ASP	L	110	28.396	24.574	25.826	1.00	54.58	L	O
ATOM	872	OD2	ASP	L	110	30.160	24.663	27.147	1.00	62.28	L	O
ATOM	873	N	ALA	L	111	25.368	26.294	29.120	1.00	44.56	L	N
ATOM	874	CA	ALA	L	111	24.592	26.797	30.246	1.00	39.67	L	C
ATOM	875	C	ALA	L	111	24.644	25.726	31.315	1.00	44.68	L	C
ATOM	876	O	ALA	L	111	24.586	24.530	31.005	1.00	49.08	L	O
ATOM	877	CB	ALA	L	111	23.148	27.052	29.832	1.00	31.81	L	C
ATOM	878	N	ALA	L	112	24.773	26.152	32.569	1.00	46.60	L	N
ATOM	879	CA	ALA	L	112	24.825	25.227	33.694	1.00	39.75	L	C
ATOM	880	C	ALA	L	112	23.429	25.074	34.249	1.00	41.14	L	C
ATOM	881	O	ALA	L	112	22.647	26.029	34.276	1.00	43.49	L	O
ATOM	882	CB	ALA	L	112	25.758	25.749	34.772	1.00	36.82	L	C
ATOM	883	N	PRO	L	113	23.090	23.862	34.696	1.00	38.43	L	N
ATOM	884	CA	PRO	L	113	21.778	23.549	35.265	1.00	39.80	L	C
ATOM	885	C	PRO	L	113	21.460	24.318	36.542	1.00	37.82	L	C
ATOM	886	O	PRO	L	113	22.357	24.745	37.263	1.00	39.66	L	O
ATOM	887	CB	PRO	L	113	21.868	22.054	35.527	1.00	42.00	L	C
ATOM	888	CG	PRO	L	113	23.329	21.868	35.833	1.00	35.81	L	C
ATOM	889	CD	PRO	L	113	23.973	22.689	34.749	1.00	40.04	L	C
ATOM	890	N	THR	L	114	20.168	24.487	36.793	1.00	35.18	L	N
ATOM	891	CA	THR	L	114	19.667	25.151	37.983	1.00	38.10	L	C
ATOM	892	C	THR	L	114	19.180	23.966	38.801	1.00	40.59	L	C
ATOM	893	O	THR	L	114	18.103	23.426	38.539	1.00	39.73	L	O
ATOM	894	CB	THR	L	114	18.476	26.033	37.650	1.00	40.42	L	C
ATOM	895	OG1	THR	L	114	18.814	26.882	36.555	1.00	56.04	L	O
ATOM	896	CG2	THR	L	114	18.088	26.872	38.835	1.00	39.90	L	C
ATOM	897	N	VAL	L	115	19.966	23.555	39.787	1.00	40.86	L	N
ATOM	898	CA	VAL	L	115	19.604	22.388	40.574	1.00	38.07	L	C
ATOM	899	C	VAL	L	115	18.839	22.704	41.840	1.00	40.05	L	C
ATOM	900	O	VAL	L	115	19.175	23.638	42.557	1.00	49.01	L	O
ATOM	901	CB	VAL	L	115	20.855	21.587	40.936	1.00	34.55	L	C
ATOM	902	CG1	VAL	L	115	20.461	20.220	41.428	1.00	34.99	L	C
ATOM	903	CG2	VAL	L	115	21.767	21.478	39.724	1.00	34.50	L	C
ATOM	904	N	SER	L	116	17.797	21.926	42.110	1.00	42.26	L	N
ATOM	905	CA	SER	L	116	16.997	22.124	43.314	1.00	46.33	L	C
ATOM	906	C	SER	L	116	16.432	20.781	43.768	1.00	44.24	L	C
ATOM	907	O	SER	L	116	15.787	20.071	42.994	1.00	43.64	L	O
ATOM	908	CB	SER	L	116	15.867	23.137	43.063	1.00	44.71	L	C
ATOM	909	OG	SER	L	116	14.936	22.668	42.114	1.00	40.38	L	O
ATOM	910	N	ILE	L	117	16.690	20.445	45.030	1.00	45.42	L	N
ATOM	911	CA	ILE	L	117	16.259	19.178	45.611	1.00	43.53	L	C

ATOM	912	C	ILE	L	117	14.991	19.319	46.444	1.00	42.44	L	C
ATOM	913	O	ILE	L	117	14.690	20.395	46.934	1.00	49.26	L	O
ATOM	914	CB	ILE	L	117	17.390	18.586	46.475	1.00	41.50	L	C
ATOM	915	CG1	ILE	L	117	17.039	17.160	46.902	1.00	42.52	L	C
ATOM	916	CG2	ILE	L	117	17.645	19.484	47.658	1.00	33.29	L	C
ATOM	917	CD1	ILE	L	117	18.205	16.384	47.448	1.00	24.02	L	C
ATOM	918	N	PHE	L	118	14.250	18.225	46.598	1.00	41.56	L	N
ATOM	919	CA	PHE	L	118	13.001	18.247	47.347	1.00	39.93	L	C
ATOM	920	C	PHE	L	118	12.783	17.035	48.247	1.00	42.69	L	C
ATOM	921	O	PHE	L	118	12.931	15.895	47.812	1.00	40.72	L	O
ATOM	922	CB	PHE	L	118	11.814	18.355	46.387	1.00	35.48	L	C
ATOM	923	CG	PHE	L	118	11.817	19.600	45.553	1.00	34.50	L	C
ATOM	924	CD1	PHE	L	118	12.716	19.753	44.514	1.00	18.82	L	C
ATOM	925	CD2	PHE	L	118	10.912	20.621	45.806	1.00	30.76	L	C
ATOM	926	CE1	PHE	L	118	12.717	20.894	43.741	1.00	32.17	L	C
ATOM	927	CE2	PHE	L	118	10.909	21.771	45.031	1.00	31.22	L	C
ATOM	928	CZ	PHE	L	118	11.815	21.905	43.995	1.00	25.14	L	C
ATOM	929	N	PRO	L	119	12.421	17.278	49.523	1.00	47.96	L	N
ATOM	930	CA	PRO	L	119	12.169	16.224	50.512	1.00	47.94	L	C
ATOM	931	C	PRO	L	119	10.819	15.591	50.208	1.00	48.29	L	C
ATOM	932	O	PRO	L	119	10.000	16.180	49.507	1.00	54.12	L	O
ATOM	933	CB	PRO	L	119	12.151	16.985	51.840	1.00	48.85	L	C
ATOM	934	CG	PRO	L	119	12.940	18.236	51.547	1.00	44.73	L	C
ATOM	935	CD	PRO	L	119	12.467	18.597	50.180	1.00	43.82	L	C
ATOM	936	N	PRO	L	120	10.570	14.385	50.738	1.00	45.71	L	N
ATOM	937	CA	PRO	L	120	9.312	13.665	50.524	1.00	42.24	L	C
ATOM	938	C	PRO	L	120	8.133	14.384	51.149	1.00	45.17	L	C
ATOM	939	O	PRO	L	120	8.243	14.972	52.224	1.00	41.74	L	O
ATOM	940	CB	PRO	L	120	9.552	12.322	51.206	1.00	42.91	L	C
ATOM	941	CG	PRO	L	120	11.046	12.173	51.177	1.00	53.99	L	C
ATOM	942	CD	PRO	L	120	11.516	13.562	51.506	1.00	48.06	L	C
ATOM	943	N	SER	L	121	7.000	14.333	50.464	1.00	51.37	L	N
ATOM	944	CA	SER	L	121	5.783	14.941	50.970	1.00	52.60	L	C
ATOM	945	C	SER	L	121	5.304	14.072	52.132	1.00	54.31	L	C
ATOM	946	O	SER	L	121	5.426	12.842	52.102	1.00	56.78	L	O
ATOM	947	CB	SER	L	121	4.714	14.972	49.878	1.00	47.45	L	C
ATOM	948	OG	SER	L	121	4.352	13.655	49.491	1.00	54.16	L	O
ATOM	949	N	SER	L	122	4.775	14.711	53.168	1.00	60.00	L	N
ATOM	950	CA	SER	L	122	4.270	13.971	54.317	1.00	59.80	L	C
ATOM	951	C	SER	L	122	3.155	13.072	53.802	1.00	56.68	L	C
ATOM	952	O	SER	L	122	2.985	11.939	54.251	1.00	61.42	L	O
ATOM	953	CB	SER	L	122	3.710	14.938	55.351	1.00	64.43	L	C
ATOM	954	OG	SER	L	122	2.595	15.630	54.816	1.00	74.50	L	O
ATOM	955	N	GLU	L	123	2.407	13.597	52.838	1.00	52.91	L	N
ATOM	956	CA	GLU	L	123	1.298	12.884	52.225	1.00	54.30	L	C
ATOM	957	C	GLU	L	123	1.745	11.552	51.657	1.00	54.59	L	C
ATOM	958	O	GLU	L	123	1.092	10.532	51.858	1.00	57.02	L	O
ATOM	959	CB	GLU	L	123	0.691	13.745	51.129	1.00	56.56	L	C
ATOM	960	CG	GLU	L	123	0.287	15.109	51.631	1.00	70.52	L	C
ATOM	961	CD	GLU	L	123	-0.272	15.981	50.545	1.00	89.26	L	C
ATOM	962	OE1	GLU	L	123	-1.246	15.550	49.890	1.00	82.90	L	O
ATOM	963	OE2	GLU	L	123	0.266	17.095	50.351	1.00	95.75	L	O
ATOM	964	N	GLN	L	124	2.856	11.556	50.935	1.00	55.07	L	N
ATOM	965	CA	GLN	L	124	3.357	10.311	50.384	1.00	54.12	L	C
ATOM	966	C	GLN	L	124	3.868	9.459	51.532	1.00	52.45	L	C
ATOM	967	O	GLN	L	124	3.770	8.229	51.505	1.00	49.04	L	O
ATOM	968	CB	GLN	L	124	4.490	10.568	49.401	1.00	55.78	L	C
ATOM	969	CG	GLN	L	124	5.223	9.297	49.028	1.00	56.57	L	C
ATOM	970	CD	GLN	L	124	6.372	9.546	48.103	1.00	50.07	L	C
ATOM	971	OE1	GLN	L	124	6.949	10.636	48.087	1.00	46.99	L	O
ATOM	972	NE2	GLN	L	124	6.730	8.534	47.329	1.00	51.34	L	N

	ATOM	973	N	LEU	L	125	4.421	10.131	52.537	1.00	52.12	L N
	ATOM	974	CA	LEU	L	125	4.955	9.455	53.708	1.00	55.42	L C
	ATOM	975	C	LEU	L	125	3.856	8.732	54.463	1.00	62.18	L C
	ATOM	976	O	LEU	L	125	4.020	7.573	54.852	1.00	63.10	L O
5	ATOM	977	CB	LEU	L	125	5.655	10.456	54.626	1.00	51.50	L C
	ATOM	978	CG	LEU	L	125	7.041	10.877	54.130	1.00	58.49	L C
	ATOM	979	CD1	LEU	L	125	7.614	11.993	54.997	1.00	55.80	L C
	ATOM	980	CD2	LEU	L	125	7.955	9.657	54.132	1.00	41.53	L C
	ATOM	981	N	THR	L	126	2.728	9.405	54.666	1.00	67.91	L N
10	ATOM	982	CA	THR	L	126	1.625	8.772	55.374	1.00	74.12	L C
	ATOM	983	C	THR	L	126	1.338	7.457	54.665	1.00	72.07	L C
	ATOM	984	O	THR	L	126	0.825	6.519	55.259	1.00	74.16	L O
	ATOM	985	CB	THR	L	126	0.341	9.643	55.362	1.00	74.87	L C
	ATOM	986	OG1	THR	L	126	-0.109	9.818	54.015	1.00	89.50	L O
15	ATOM	987	CG2	THR	L	126	0.604	11.004	55.982	1.00	77.06	L C
	ATOM	988	N	SER	L	127	1.690	7.401	53.386	1.00	73.54	L N
	ATOM	989	CA	SER	L	127	1.476	6.210	52.574	1.00	74.09	L C
	ATOM	990	C	SER	L	127	2.543	5.136	52.794	1.00	71.41	L C
	ATOM	991	O	SER	L	127	2.361	3.990	52.400	1.00	68.13	L O
20	ATOM	992	CB	SER	L	127	1.434	6.597	51.093	1.00	75.35	L C
	ATOM	993	OG	SER	L	127	1.480	5.449	50.265	1.00	79.24	L O
	ATOM	994	N	GLY	L	128	3.655	5.508	53.417	1.00	67.28	L N
	ATOM	995	CA	GLY	L	128	4.709	4.542	53.670	1.00	63.17	L C
	ATOM	996	C	GLY	L	128	5.868	4.598	52.670	1.00	61.71	L C
25	ATOM	997	O	GLY	L	128	6.795	3.799	52.708	1.00	55.67	L O
	ATOM	998	N	GLY	L	129	5.776	5.630	51.815	1.00	60.01	L N
	ATOM	999	CA	GLY	L	129	6.789	5.742	50.784	1.00	51.52	L C
	ATOM	1000	C	GLY	L	129	7.540	7.051	50.994	1.00	54.47	L C
	ATOM	1001	O	GLY	L	129	7.077	7.936	51.711	1.00	56.91	L O
30	ATOM	1002	N	ALA	L	130	8.711	7.162	50.390	1.00	49.98	L N
	ATOM	1003	CA	ALA	L	130	9.509	8.360	50.512	1.00	43.26	L C
	ATOM	1004	C	ALA	L	130	10.162	8.574	49.169	1.00	44.36	L C
	ATOM	1005	O	ALA	L	130	10.851	7.697	48.658	1.00	44.31	L O
	ATOM	1006	CB	ALA	L	130	10.563	8.188	51.586	1.00	51.51	L C
35	ATOM	1007	N	SER	L	131	9.915	9.733	48.581	1.00	44.50	L N
	ATOM	1008	CA	SER	L	131	10.498	10.057	47.297	1.00	40.37	L C
	ATOM	1009	C	SER	L	131	11.226	11.385	47.391	1.00	43.32	L C
	ATOM	1010	O	SER	L	131	10.664	12.402	47.807	1.00	48.95	L O
	ATOM	1011	CB	SER	L	131	9.419	10.114	46.214	1.00	38.70	L C
40	ATOM	1012	OG	SER	L	131	8.904	8.820	45.949	1.00	36.52	L O
	ATOM	1013	N	VAL	L	132	12.497	11.354	47.032	1.00	38.46	L N
	ATOM	1014	CA	VAL	L	132	13.311	12.543	47.049	1.00	34.22	L C
	ATOM	1015	C	VAL	L	132	13.461	12.881	45.579	1.00	39.02	L C
	ATOM	1016	O	VAL	L	132	13.935	12.066	44.797	1.00	42.97	L O
45	ATOM	1017	CB	VAL	L	132	14.666	12.237	47.658	1.00	38.34	L C
	ATOM	1018	CG1	VAL	L	132	15.373	13.520	48.062	1.00	35.88	L C
	ATOM	1019	CG2	VAL	L	132	14.473	11.310	48.833	1.00	45.84	L C
	ATOM	1020	N	VAL	L	133	13.023	14.070	45.191	1.00	35.71	L N
	ATOM	1021	CA	VAL	L	133	13.118	14.457	43.799	1.00	35.51	L C
50	ATOM	1022	C	VAL	L	133	14.107	15.610	43.629	1.00	35.39	L C
	ATOM	1023	O	VAL	L	133	14.332	16.406	44.537	1.00	32.94	L O
	ATOM	1024	CB	VAL	L	133	11.716	14.809	43.225	1.00	23.82	L C
	ATOM	1025	CG1	VAL	L	133	11.857	15.359	41.830	1.00	27.79	L C
	ATOM	1026	CG2	VAL	L	133	10.822	13.581	43.226	1.00	38.91	L C
55	ATOM	1027	N	CYS	L	134	14.724	15.667	42.460	1.00	38.30	L N
	ATOM	1028	CA	CYS	L	134	15.705	16.689	42.189	1.00	41.29	L C
	ATOM	1029	C	CYS	L	134	15.527	17.183	40.758	1.00	42.64	L C
	ATOM	1030	O	CYS	L	134	15.368	16.388	39.829	1.00	43.51	L O
	ATOM	1031	CB	CYS	L	134	17.102	16.104	42.397	1.00	38.37	L C
60	ATOM	1032	SG	CYS	L	134	18.395	17.355	42.642	1.00	65.37	L S
	ATOM	1033	N	PHE	L	135	15.519	18.502	40.590	1.00	42.83	L N

	ATOM	1034	CA	PHE	L	135	15.365	19.106	39.270	1.00	38.04	L	C
	ATOM	1035	C	PHE	L	135	16.669	19.732	38.820	1.00	35.38	L	C
	ATOM	1036	O	PHE	L	135	17.424	20.277	39.616	1.00	38.80	L	O
	ATOM	1037	CB	PHE	L	135	14.276	20.193	39.268	1.00	34.74	L	C
5	ATOM	1038	CG	PHE	L	135	12.878	19.664	39.381	1.00	31.55	L	C
	ATOM	1039	CD1	PHE	L	135	12.434	18.652	38.546	1.00	32.18	L	C
	ATOM	1040	CD2	PHE	L	135	11.995	20.197	40.313	1.00	35.76	L	C
	ATOM	1041	CE1	PHE	L	135	11.132	18.177	38.635	1.00	31.56	L	C
	ATOM	1042	CE2	PHE	L	135	10.690	19.726	40.408	1.00	27.93	L	C
10	ATOM	1043	CZ	PHE	L	135	10.261	18.711	39.563	1.00	30.83	L	C
	ATOM	1044	N	LEU	L	136	16.926	19.620	37.530	1.00	31.81	L	N
	ATOM	1045	CA	LEU	L	136	18.103	20.184	36.907	1.00	31.58	L	C
	ATOM	1046	C	LEU	L	136	17.500	20.856	35.680	1.00	35.59	L	C
	ATOM	1047	O	LEU	L	136	17.302	20.232	34.638	1.00	34.85	L	O
15	ATOM	1048	CB	LEU	L	136	19.096	19.076	36.522	1.00	29.55	L	C
	ATOM	1049	CG	LEU	L	136	19.940	18.497	37.674	1.00	39.59	L	C
	ATOM	1050	CD1	LEU	L	136	19.073	17.684	38.639	1.00	28.48	L	C
	ATOM	1051	CD2	LEU	L	136	21.050	17.626	37.114	1.00	33.08	L	C
	ATOM	1052	N	ASN	L	137	17.183	22.134	35.815	1.00	35.66	L	N
20	ATOM	1053	CA	ASN	L	137	16.554	22.851	34.723	1.00	35.50	L	C
	ATOM	1054	C	ASN	L	137	17.380	23.822	33.891	1.00	30.57	L	C
	ATOM	1055	O	ASN	L	137	18.269	24.511	34.382	1.00	31.68	L	O
	ATOM	1056	CB	ASN	L	137	15.321	23.563	35.260	1.00	39.89	L	C
	ATOM	1057	CG	ASN	L	137	14.334	22.601	35.894	1.00	35.35	L	C
25	ATOM	1058	OD1	ASN	L	137	13.480	23.001	36.681	1.00	34.80	L	O
	ATOM	1059	ND2	ASN	L	137	14.444	21.328	35.545	1.00	34.00	L	N
	ATOM	1060	N	ASN	L	138	17.042	23.843	32.609	1.00	33.92	L	N
	ATOM	1061	CA	ASN	L	138	17.607	24.760	31.601	1.00	38.60	L	C
	ATOM	1062	C	ASN	L	138	19.153	24.748	31.533	1.00	41.40	L	C
30	ATOM	1063	O	ASN	L	138	19.819	25.738	31.809	1.00	48.42	L	O
	ATOM	1064	CB	ASN	L	138	17.111	26.173	31.913	1.00	36.37	L	C
	ATOM	1065	CG	ASN	L	138	15.615	26.150	32.093	1.00	34.07	L	C
	ATOM	1066	OD1	ASN	L	138	15.095	26.138	33.205	1.00	52.45	L	O
	ATOM	1067	ND2	ASN	L	138	14.906	26.139	30.951	1.00	45.49	L	N
35	ATOM	1068	N	PHE	L	139	19.758	23.640	31.136	1.00	36.88	L	N
	ATOM	1069	CA	PHE	L	139	21.208	23.590	31.028	1.00	36.96	L	C
	ATOM	1070	C	PHE	L	139	21.584	23.275	29.577	1.00	38.99	L	C
	ATOM	1071	O	PHE	L	139	20.727	22.950	28.756	1.00	31.96	L	O
	ATOM	1072	CB	PHE	L	139	21.777	22.529	31.992	1.00	34.96	L	C
40	ATOM	1073	CG	PHE	L	139	21.177	21.174	31.814	1.00	22.71	L	C
	ATOM	1074	CD1	PHE	L	139	21.545	20.373	30.746	1.00	28.85	L	C
	ATOM	1075	CD2	PHE	L	139	20.192	20.726	32.677	1.00	30.19	L	C
	ATOM	1076	CE1	PHE	L	139	20.941	19.152	30.533	1.00	26.26	L	C
	ATOM	1077	CE2	PHE	L	139	19.579	19.504	32.476	1.00	29.02	L	C
45	ATOM	1078	CZ	PHE	L	139	19.952	18.712	31.401	1.00	29.39	L	C
	ATOM	1079	N	TYR	L	140	22.865	23.389	29.257	1.00	44.67	L	N
	ATOM	1080	CA	TYR	L	140	23.308	23.105	27.908	1.00	42.78	L	C
	ATOM	1081	C	TYR	L	140	24.811	22.904	27.884	1.00	42.60	L	C
	ATOM	1082	O	TYR	L	140	25.560	23.667	28.495	1.00	40.34	L	O
50	ATOM	1083	CB	TYR	L	140	22.903	24.244	26.960	1.00	39.66	L	C
	ATOM	1084	CG	TYR	L	140	23.239	23.950	25.519	1.00	38.62	L	C
	ATOM	1085	CD1	TYR	L	140	24.538	24.074	25.057	1.00	38.52	L	C
	ATOM	1086	CD2	TYR	L	140	22.274	23.465	24.645	1.00	41.68	L	C
	ATOM	1087	CE1	TYR	L	140	24.875	23.722	23.780	1.00	40.62	L	C
55	ATOM	1088	CE2	TYR	L	140	22.600	23.104	23.353	1.00	42.88	L	C
	ATOM	1089	CZ	TYR	L	140	23.910	23.233	22.927	1.00	48.74	L	C
	ATOM	1090	OH	TYR	L	140	24.273	22.864	21.651	1.00	52.93	L	O
	ATOM	1091	N	PRO	L	141	25.274	21.883	27.148	1.00	43.92	L	N
	ATOM	1092	CA	PRO	L	141	24.451	20.950	26.365	1.00	46.65	L	C
60	ATOM	1093	C	PRO	L	141	23.688	19.903	27.185	1.00	49.80	L	C
	ATOM	1094	O	PRO	L	141	23.702	19.934	28.414	1.00	56.01	L	O

	ATOM	1095	CB	PRO	L	141	25.466	20.325	25.414	1.00	45.66	L C
	ATOM	1096	CG	PRO	L	141	26.689	20.271	26.256	1.00	41.16	L C
	ATOM	1097	CD	PRO	L	141	26.706	21.618	26.937	1.00	45.29	L C
	ATOM	1098	N	LYS	L	142	23.037	18.968	26.494	1.00	47.16	L N
5	ATOM	1099	CA	LYS	L	142	22.055	18.059	27.073	1.00	50.49	L C
	ATOM	1100	C	LYS	L	142	22.714	16.954	27.908	1.00	49.27	L C
	ATOM	1101	O	LYS	L	142	22.068	16.216	28.642	1.00	52.27	L O
	ATOM	1102	CB	LYS	L	142	21.248	17.439	25.931	1.00	47.73	L C
	ATOM	1103	CG	LYS	L	142	22.141	16.757	24.892	1.00	63.02	L C
10	ATOM	1104	CD	LYS	L	142	21.345	15.845	23.957	1.00	58.35	L C
	ATOM	1105	CE	LYS	L	142	21.853	15.899	22.512	1.00	73.15	L C
	ATOM	1106	NZ	LYS	L	142	23.168	15.269	22.427	1.00	96.24	L N
	ATOM	1107	N	ASP	L	143	24.044	16.825	27.745	1.00	50.43	L N
	ATOM	1108	CA	ASP	L	143	24.763	15.768	28.453	1.00	55.24	L C
15	ATOM	1109	C	ASP	L	143	25.076	16.163	29.902	1.00	53.06	L C
	ATOM	1110	O	ASP	L	143	25.811	17.102	30.180	1.00	60.12	L O
	ATOM	1111	CB	ASP	L	143	26.070	15.493	27.705	1.00	58.45	L C
	ATOM	1112	CG	ASP	L	143	25.787	14.678	26.452	1.00	74.50	L C
	ATOM	1113	OD1	ASP	L	143	25.958	15.224	25.362	1.00	87.12	L O
20	ATOM	1114	OD2	ASP	L	143	25.432	13.507	26.575	1.00	96.79	L O
	ATOM	1115	N	ILE	L	144	24.460	15.425	30.845	1.00	49.84	L N
	ATOM	1116	CA	ILE	L	144	24.740	15.678	32.255	1.00	43.94	L C
	ATOM	1117	C	ILE	L	144	24.481	14.437	33.110	1.00	44.67	L C
	ATOM	1118	O	ILE	L	144	23.746	13.529	32.743	1.00	46.34	L O
25	ATOM	1119	CB	ILE	L	144	23.852	16.828	32.730	1.00	47.26	L C
	ATOM	1120	CG1	ILE	L	144	24.187	17.188	34.181	1.00	39.55	L C
	ATOM	1121	CG2	ILE	L	144	22.377	16.390	32.685	1.00	27.85	L C
	ATOM	1122	CD1	ILE	L	144	23.503	18.480	34.636	1.00	37.00	L C
	ATOM	1123	N	ASN	L	145	25.153	14.402	34.274	1.00	47.86	L N
30	ATOM	1124	CA	ASN	L	145	24.977	13.263	35.167	1.00	56.19	L C
	ATOM	1125	C	ASN	L	145	24.543	13.703	36.565	1.00	48.41	L C
	ATOM	1126	O	ASN	L	145	24.971	14.722	37.097	1.00	51.90	L O
	ATOM	1127	CB	ASN	L	145	26.308	12.514	35.257	1.00	58.17	L C
	ATOM	1128	CG	ASN	L	145	26.692	11.994	33.896	1.00	79.58	L C
35	ATOM	1129	OD1	ASN	L	145	25.875	11.463	33.148	1.00	74.98	L O
	ATOM	1130	ND2	ASN	L	145	27.992	12.137	33.582	1.00	99.92	L N
	ATOM	1131	N	VAL	L	146	23.627	12.907	37.144	1.00	47.14	L N
	ATOM	1132	CA	VAL	L	146	23.220	13.153	38.521	1.00	41.80	L C
	ATOM	1133	C	VAL	L	146	23.646	12.000	39.432	1.00	41.27	L C
40	ATOM	1134	O	VAL	L	146	23.665	10.840	39.043	1.00	41.13	L O
	ATOM	1135	CB	VAL	L	146	21.700	13.305	38.550	1.00	38.57	L C
	ATOM	1136	CG1	VAL	L	146	21.222	13.420	39.996	1.00	48.70	L C
	ATOM	1137	CG2	VAL	L	146	21.291	14.552	37.788	1.00	52.23	L C
	ATOM	1138	N	LYS	L	147	24.019	12.322	40.657	1.00	39.29	L N
45	ATOM	1139	CA	LYS	L	147	24.434	11.308	41.580	1.00	43.68	L C
	ATOM	1140	C	LYS	L	147	23.757	11.587	42.893	1.00	43.43	L C
	ATOM	1141	O	LYS	L	147	23.829	12.680	43.439	1.00	47.08	L O
	ATOM	1142	CB	LYS	L	147	25.952	11.402	41.744	1.00	43.41	L C
	ATOM	1143	CG	LYS	L	147	26.521	10.238	42.559	1.00	49.00	L C
50	ATOM	1144	CD	LYS	L	147	27.994	10.448	42.918	1.00	69.56	L C
	ATOM	1145	CE	LYS	L	147	28.883	10.597	41.679	1.00	79.19	L C
	ATOM	1146	NZ	LYS	L	147	29.949	11.561	41.950	1.00	85.36	L N
	ATOM	1147	N	TRP	L	148	23.051	10.591	43.410	1.00	49.19	L N
	ATOM	1148	CA	TRP	L	148	22.371	10.756	44.682	1.00	45.19	L C
55	ATOM	1149	C	TRP	L	148	23.305	10.250	45.751	1.00	45.91	L C
	ATOM	1150	O	TRP	L	148	24.076	9.322	45.529	1.00	43.97	L O
	ATOM	1151	CB	TRP	L	148	21.065	9.964	44.727	1.00	39.66	L C
	ATOM	1152	CG	TRP	L	148	19.940	10.601	43.968	1.00	42.61	L C
	ATOM	1153	CD1	TRP	L	148	19.564	10.346	42.677	1.00	33.06	L C
60	ATOM	1154	CD2	TRP	L	148	19.029	11.586	44.464	1.00	42.82	L C
	ATOM	1155	NE1	TRP	L	148	18.469	11.107	42.344	1.00	30.84	L N

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ATOM   1156  CE2 TRP L 148      18.121  11.879  43.422  1.00 35.66      L    C
ATOM   1157  CE3 TRP L 148      18.887  12.247  45.687  1.00 32.84      L    C
ATOM   1158  CZ2 TRP L 148      17.086  12.807  43.570  1.00 29.88      L    C
ATOM   1159  CZ3 TRP L 148      17.858  13.162  45.831  1.00 40.22      L    C
ATOM   1160  CH2 TRP L 148      16.971  13.434  44.778  1.00 26.01      L    C
ATOM   1161  N   LYS L 149      23.241  10.883  46.911  1.00 47.40      L    N
ATOM   1162  CA  LYS L 149      24.072  10.504  48.036  1.00 41.22      L    C
ATOM   1163  C   LYS L 149      23.260  10.572  49.313  1.00 39.97      L    C
ATOM   1164  O   LYS L 149      22.582  11.560  49.554  1.00 49.04      L    O
ATOM   1165  CB  LYS L 149      25.267  11.454  48.162  1.00 39.19      L    C
ATOM   1166  CG  LYS L 149      26.501  11.060  47.373  1.00 35.97      L    C
ATOM   1167  CD  LYS L 149      27.679  11.917  47.817  1.00 45.37      L    C
ATOM   1168  CE  LYS L 149      28.982  11.466  47.181  1.00 70.51      L    C
ATOM   1169  NZ  LYS L 149      30.156  12.182  47.759  1.00 67.81      L    N
ATOM   1170  N   ILE L 150      23.309   9.524  50.122  1.00 38.16      L    N
ATOM   1171  CA  ILE L 150      22.606   9.544  51.396  1.00 38.62      L    C
ATOM   1172  C   ILE L 150      23.624   9.285  52.498  1.00 39.38      L    C
ATOM   1173  O   ILE L 150      24.240   8.227  52.546  1.00 42.34      L    O
ATOM   1174  CB  ILE L 150      21.501   8.485  51.476  1.00 35.52      L    C
ATOM   1175  CG1 ILE L 150      20.483   8.700  50.351  1.00 34.00      L    C
ATOM   1176  CG2 ILE L 150      20.834   8.565  52.845  1.00 30.49      L    C
ATOM   1177  CD1 ILE L 150      19.319   7.730  50.350  1.00 21.56      L    C
ATOM   1178  N   ASP L 151      23.799  10.263  53.379  1.00 42.16      L    N
ATOM   1179  CA  ASP L 151      24.763  10.162  54.468  1.00 43.08      L    C
ATOM   1180  C   ASP L 151      26.175   9.985  53.920  1.00 47.39      L    C
ATOM   1181  O   ASP L 151      26.964   9.180  54.422  1.00 55.21      L    O
ATOM   1182  CB  ASP L 151      24.408   9.001  55.395  1.00 38.76      L    C
ATOM   1183  CG  ASP L 151      23.255   9.328  56.307  1.00 41.76      L    C
ATOM   1184  OD1 ASP L 151      22.800  10.490  56.289  1.00 53.05      L    O
ATOM   1185  OD2 ASP L 151      22.806   8.434  57.048  1.00 49.41      L    O
ATOM   1186  N   GLY L 152      26.477  10.744  52.873  1.00 48.87      L    N
ATOM   1187  CA  GLY L 152      27.819  10.665  52.287  1.00 46.37      L    C
ATOM   1188  C   GLY L 152      27.938   9.582  51.203  1.00 49.77      L    C
ATOM   1189  O   GLY L 152      28.783   9.629  50.322  1.00 58.18      L    O
ATOM   1190  N   SER L 153      27.077   8.554  51.312  1.00 48.01      L    N
ATOM   1191  CA  SER L 153      27.163   7.440  50.371  1.00 52.83      L    C
ATOM   1192  C   SER L 153      26.357   7.694  49.095  1.00 45.68      L    C
ATOM   1193  O   SER L 153      25.294   8.299  49.106  1.00 49.11      L    O
ATOM   1194  CB  SER L 153      26.634   6.189  51.082  1.00 54.79      L    C
ATOM   1195  OG  SER L 153      27.612   5.715  52.009  1.00 69.58      L    O
ATOM   1196  N   GLU L 154      26.929   7.245  47.963  1.00 43.38      L    N
ATOM   1197  CA  GLU L 154      26.197   7.333  46.703  1.00 50.29      L    C
ATOM   1198  C   GLU L 154      25.117   6.253  46.615  1.00 49.87      L    C
ATOM   1199  O   GLU L 154      25.273   5.136  47.088  1.00 56.57      L    O
ATOM   1200  CB  GLU L 154      27.194   7.167  45.553  1.00 45.67      L    C
ATOM   1201  CG  GLU L 154      26.582   6.459  44.340  1.00 53.31      L    C
ATOM   1202  CD  GLU L 154      27.464   6.677  43.126  1.00 72.03      L    C
ATOM   1203  OE1 GLU L 154      28.674   6.584  43.252  1.00 56.01      L    O
ATOM   1204  OE2 GLU L 154      26.928   6.957  42.059  1.00 70.34      L    O
ATOM   1205  N   ARG L 155      23.977   6.589  46.019  1.00 49.27      L    N
ATOM   1206  CA  ARG L 155      22.910   5.615  45.804  1.00 47.42      L    C
ATOM   1207  C   ARG L 155      22.739   5.463  44.293  1.00 48.15      L    C
ATOM   1208  O   ARG L 155      22.790   6.446  43.554  1.00 49.72      L    O
ATOM   1209  CB  ARG L 155      21.584   6.075  46.418  1.00 45.78      L    C
ATOM   1210  CG  ARG L 155      21.489   5.965  47.938  1.00 46.29      L    C
ATOM   1211  CD  ARG L 155      21.711   4.544  48.452  1.00 44.74      L    C
ATOM   1212  NE  ARG L 155      21.593   4.481  49.908  1.00 46.03      L    N
ATOM   1213  CZ  ARG L 155      20.450   4.313  50.565  1.00 47.68      L    C
ATOM   1214  NH1 ARG L 155      19.314   4.173  49.902  1.00 57.00      L    N
ATOM   1215  NH2 ARG L 155      20.434   4.323  51.888  1.00 44.35      L    N
ATOM   1216  N   GLN L 156      22.559   4.230  43.836  1.00 47.00      L    N
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ATOM   1217  CA  GLN L 156      22.375   3.956  42.416  1.00 50.50      L    C
ATOM   1218  C   GLN L 156      21.002   3.359  42.205  1.00 48.51      L    C
ATOM   1219  O   GLN L 156      20.343   3.585  41.197  1.00 47.82      L    O
ATOM   1220  CB  GLN L 156      23.392   2.933  41.914  1.00 57.57      L    C
ATOM   1221  CG  GLN L 156      24.813   3.404  41.730  1.00 69.42      L    C
ATOM   1222  CD  GLN L 156      25.459   2.736  40.522  1.00 87.97      L    C
ATOM   1223  OE1 GLN L 156      25.401   1.514  40.364  1.00 94.85      L    O
ATOM   1224  NE2 GLN L 156      26.072   3.541  39.658  1.00 96.03      L    N
ATOM   1225  N   ASN L 157      20.584   2.583  43.188  1.00 50.75      L    N
ATOM   1226  CA  ASN L 157      19.323   1.881  43.134  1.00 56.06      L    C
ATOM   1227  C   ASN L 157      18.104   2.729  43.475  1.00 51.01      L    C
ATOM   1228  O   ASN L 157      18.185   3.662  44.263  1.00 54.53      L    O
ATOM   1229  CB  ASN L 157      19.434   0.668  44.060  1.00 63.75      L    C
ATOM   1230  CG  ASN L 157      20.754  -0.097  43.856  1.00 77.57      L    C
ATOM   1231  OD1 ASN L 157      20.935  -0.797  42.852  1.00 83.50      L    O
ATOM   1232  ND2 ASN L 157      21.689   0.060  44.800  1.00 79.77      L    N
ATOM   1233  N   GLY L 158      16.978   2.402  42.852  1.00 46.82      L    N
ATOM   1234  CA  GLY L 158      15.743   3.113  43.113  1.00 36.61      L    C
ATOM   1235  C   GLY L 158      15.631   4.514  42.556  1.00 33.11      L    C
ATOM   1236  O   GLY L 158      14.882   5.328  43.086  1.00 37.66      L    O
ATOM   1237  N   VAL L 159      16.364   4.818  41.496  1.00 33.40      L    N
ATOM   1238  CA  VAL L 159      16.278   6.143  40.921  1.00 37.20      L    C
ATOM   1239  C   VAL L 159      15.794   6.096  39.489  1.00 39.79      L    C
ATOM   1240  O   VAL L 159      16.196   5.238  38.717  1.00 50.88      L    O
ATOM   1241  CB  VAL L 159      17.631   6.855  40.954  1.00 37.60      L    C
ATOM   1242  CG1 VAL L 159      18.728   5.839  41.060  1.00 41.29      L    C
ATOM   1243  CG2 VAL L 159      17.804   7.709  39.689  1.00 35.05      L    C
ATOM   1244  N   LEU L 160      14.903   7.012  39.142  1.00 40.63      L    N
ATOM   1245  CA  LEU L 160      14.381   7.088  37.792  1.00 40.01      L    C
ATOM   1246  C   LEU L 160      14.539   8.525  37.298  1.00 35.48      L    C
ATOM   1247  O   LEU L 160      14.189   9.473  37.996  1.00 35.80      L    O
ATOM   1248  CB  LEU L 160      12.920   6.621  37.755  1.00 41.10      L    C
ATOM   1249  CG  LEU L 160      12.712   5.138  38.108  1.00 47.84      L    C
ATOM   1250  CD1 LEU L 160      11.223   4.831  38.132  1.00 64.80      L    C
ATOM   1251  CD2 LEU L 160      13.380   4.229  37.103  1.00 43.08      L    C
ATOM   1252  N   ASN L 161      15.110   8.661  36.104  1.00 33.90      L    N
ATOM   1253  CA  ASN L 161      15.383   9.949  35.479  1.00 32.64      L    C
ATOM   1254  C   ASN L 161      14.524  10.192  34.260  1.00 33.50      L    C
ATOM   1255  O   ASN L 161      14.149   9.265  33.559  1.00 38.43      L    O
ATOM   1256  CB  ASN L 161      16.828  10.007  35.003  1.00 38.36      L    C
ATOM   1257  CG  ASN L 161      17.823   9.762  36.101  1.00 37.26      L    C
ATOM   1258  OD1 ASN L 161      17.839  10.463  37.111  1.00 40.06      L    O
ATOM   1259  ND2 ASN L 161      18.678   8.769  35.902  1.00 32.15      L    N
ATOM   1260  N   SER L 162      14.249  11.452  33.976  1.00 31.12      L    N
ATOM   1261  CA  SER L 162      13.462  11.777  32.800  1.00 26.43      L    C
ATOM   1262  C   SER L 162      14.027  13.040  32.153  1.00 28.89      L    C
ATOM   1263  O   SER L 162      14.447  13.956  32.845  1.00 33.59      L    O
ATOM   1264  CB  SER L 162      12.006  11.972  33.194  1.00 22.50      L    C
ATOM   1265  OG  SER L 162      11.191  11.991  32.046  1.00 37.37      L    O
ATOM   1266  N   TRP L 163      14.054  13.088  30.829  1.00 33.44      L    N
ATOM   1267  CA  TRP L 163      14.586  14.262  30.131  1.00 28.63      L    C
ATOM   1268  C   TRP L 163      13.556  14.875  29.206  1.00 27.81      L    C
ATOM   1269  O   TRP L 163      12.871  14.167  28.468  1.00 33.25      L    O
ATOM   1270  CB  TRP L 163      15.817  13.888  29.293  1.00 28.11      L    C
ATOM   1271  CG  TRP L 163      16.950  13.331  30.084  1.00 30.72      L    C
ATOM   1272  CD1 TRP L 163      18.060  13.999  30.514  1.00 34.81      L    C
ATOM   1273  CD2 TRP L 163      17.093  11.981  30.534  1.00 37.12      L    C
ATOM   1274  NE1 TRP L 163      18.886  13.146  31.201  1.00 31.24      L    N
ATOM   1275  CE2 TRP L 163      18.317  11.899  31.227  1.00 36.59      L    C
ATOM   1276  CE3 TRP L 163      16.304  10.829  30.419  1.00 42.13      L    C
ATOM   1277  CZ2 TRP L 163      18.774  10.712  31.801  1.00 44.40      L    C
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ATOM	1278	CZ3	TRP	L	163	16.761	9.644	30.996	1.00	49.83	L	C
ATOM	1279	CH2	TRP	L	163	17.983	9.598	31.675	1.00	29.31	L	C
ATOM	1280	N	THR	L	164	13.463	16.199	29.235	1.00	27.83	L	N
ATOM	1281	CA	THR	L	164	12.531	16.916	28.377	1.00	29.47	L	C
ATOM	1282	C	THR	L	164	13.180	17.119	27.013	1.00	27.57	L	C
ATOM	1283	O	THR	L	164	14.379	16.911	26.867	1.00	32.97	L	O
ATOM	1284	CB	THR	L	164	12.215	18.292	28.955	1.00	29.66	L	C
ATOM	1285	OG1	THR	L	164	13.429	19.023	29.111	1.00	25.23	L	O
ATOM	1286	CG2	THR	L	164	11.549	18.165	30.299	1.00	33.20	L	C
ATOM	1287	N	ASP	L	165	12.393	17.499	26.009	1.00	32.30	L	N
ATOM	1288	CA	ASP	L	165	12.966	17.780	24.690	1.00	37.75	L	C
ATOM	1289	C	ASP	L	165	13.614	19.155	24.807	1.00	34.76	L	C
ATOM	1290	O	ASP	L	165	13.493	19.815	25.832	1.00	41.05	L	O
ATOM	1291	CB	ASP	L	165	11.890	17.835	23.597	1.00	44.29	L	C
ATOM	1292	CG	ASP	L	165	11.479	16.464	23.105	1.00	45.32	L	C
ATOM	1293	OD1	ASP	L	165	10.645	15.818	23.769	1.00	54.61	L	O
ATOM	1294	OD2	ASP	L	165	11.998	16.033	22.052	1.00	65.66	L	O
ATOM	1295	N	GLN	L	166	14.294	19.615	23.772	1.00	34.89	L	N
ATOM	1296	CA	GLN	L	166	14.921	20.923	23.884	1.00	33.11	L	C
ATOM	1297	C	GLN	L	166	13.882	22.031	23.890	1.00	34.33	L	C
ATOM	1298	O	GLN	L	166	12.917	22.001	23.126	1.00	40.73	L	O
ATOM	1299	CB	GLN	L	166	15.927	21.130	22.754	1.00	32.34	L	C
ATOM	1300	CG	GLN	L	166	16.566	22.492	22.716	1.00	25.94	L	C
ATOM	1301	CD	GLN	L	166	17.735	22.524	21.767	1.00	24.29	L	C
ATOM	1302	OE1	GLN	L	166	17.691	21.915	20.703	1.00	29.03	L	O
ATOM	1303	NE2	GLN	L	166	18.789	23.234	22.141	1.00	39.54	L	N
ATOM	1304	N	ASP	L	167	14.084	23.000	24.775	1.00	36.26	L	N
ATOM	1305	CA	ASP	L	167	13.244	24.183	24.911	1.00	37.77	L	C
ATOM	1306	C	ASP	L	167	13.133	24.919	23.578	1.00	38.98	L	C
ATOM	1307	O	ASP	L	167	14.089	25.044	22.826	1.00	45.84	L	O
ATOM	1308	CB	ASP	L	167	13.869	25.102	25.965	1.00	39.01	L	C
ATOM	1309	CG	ASP	L	167	12.825	26.104	26.438	1.00	50.62	L	C
ATOM	1310	OD1	ASP	L	167	11.843	25.665	27.041	1.00	61.30	L	O
ATOM	1311	OD2	ASP	L	167	13.003	27.301	26.214	1.00	65.60	L	O
ATOM	1312	N	SER	L	168	11.907	25.373	23.265	1.00	39.91	L	N
ATOM	1313	CA	SER	L	168	11.711	26.041	21.985	1.00	36.41	L	C
ATOM	1314	C	SER	L	168	12.002	27.542	22.067	1.00	36.74	L	C
ATOM	1315	O	SER	L	168	11.965	28.267	21.082	1.00	42.82	L	O
ATOM	1316	CB	SER	L	168	10.268	25.802	21.535	1.00	34.55	L	C
ATOM	1317	OG	SER	L	168	10.172	24.514	20.922	1.00	38.70	L	O
ATOM	1318	N	LYS	L	169	12.279	28.009	23.301	1.00	41.00	L	N
ATOM	1319	CA	LYS	L	169	12.476	29.440	23.491	1.00	40.71	L	C
ATOM	1320	C	LYS	L	169	13.938	29.810	23.746	1.00	44.31	L	C
ATOM	1321	O	LYS	L	169	14.524	30.641	23.065	1.00	47.38	L	O
ATOM	1322	CB	LYS	L	169	11.596	29.896	24.654	1.00	50.40	L	C
ATOM	1323	CG	LYS	L	169	10.226	30.371	24.164	1.00	64.25	L	C
ATOM	1324	CD	LYS	L	169	9.232	30.585	25.307	1.00	92.37	L	C
ATOM	1325	CE	LYS	L	169	7.980	31.351	24.858	1.00	99.86	L	C
ATOM	1326	NZ	LYS	L	169	7.425	32.101	25.987	1.00	94.60	L	N
ATOM	1327	N	ASP	L	170	14.514	29.200	24.799	1.00	45.97	L	N
ATOM	1328	CA	ASP	L	170	15.922	29.466	25.091	1.00	46.90	L	C
ATOM	1329	C	ASP	L	170	16.813	28.255	24.790	1.00	43.28	L	C
ATOM	1330	O	ASP	L	170	17.967	28.170	25.193	1.00	47.78	L	O
ATOM	1331	CB	ASP	L	170	16.053	29.878	26.560	1.00	48.00	L	C
ATOM	1332	CG	ASP	L	170	15.574	28.743	27.455	1.00	48.03	L	C
ATOM	1333	OD1	ASP	L	170	15.499	27.620	26.962	1.00	51.45	L	O
ATOM	1334	OD2	ASP	L	170	15.296	28.988	28.627	1.00	84.97	L	O
ATOM	1335	N	SER	L	171	16.209	27.271	24.096	1.00	46.86	L	N
ATOM	1336	CA	SER	L	171	16.983	26.133	23.607	1.00	48.35	L	C
ATOM	1337	C	SER	L	171	17.845	25.485	24.692	1.00	48.37	L	C
ATOM	1338	O	SER	L	171	19.057	25.351	24.563	1.00	55.99	L	O

	ATOM	1339	CB	SER	L	171	17.872	26.628	22.467	1.00	45.20	L C
	ATOM	1340	OG	SER	L	171	17.053	26.974	21.348	1.00	60.97	L O
	ATOM	1341	N	THR	L	172	17.189	25.100	25.803	1.00	51.34	L N
	ATOM	1342	CA	THR	L	172	17.921	24.407	26.856	1.00	44.78	L C
5	ATOM	1343	C	THR	L	172	17.399	22.982	27.059	1.00	42.17	L C
	ATOM	1344	O	THR	L	172	16.466	22.535	26.405	1.00	45.97	L O
	ATOM	1345	CB	THR	L	172	17.783	25.207	28.152	1.00	37.85	L C
	ATOM	1346	OG1	THR	L	172	16.404	25.512	28.370	1.00	57.23	L O
	ATOM	1347	CG2	THR	L	172	18.577	26.517	28.050	1.00	33.68	L C
10	ATOM	1348	N	TYR	L	173	17.892	22.288	28.069	1.00	44.08	L N
	ATOM	1349	CA	TYR	L	173	17.364	20.993	28.442	1.00	40.50	L C
	ATOM	1350	C	TYR	L	173	17.228	20.919	29.947	1.00	40.14	L C
	ATOM	1351	O	TYR	L	173	18.070	21.432	30.679	1.00	40.88	L O
	ATOM	1352	CB	TYR	L	173	18.299	19.877	28.014	1.00	32.40	L C
15	ATOM	1353	CG	TYR	L	173	18.551	19.773	26.544	1.00	38.44	L C
	ATOM	1354	CD1	TYR	L	173	19.528	20.542	25.931	1.00	23.34	L C
	ATOM	1355	CD2	TYR	L	173	17.886	18.818	25.781	1.00	30.45	L C
	ATOM	1356	CE1	TYR	L	173	19.847	20.347	24.605	1.00	23.64	L C
	ATOM	1357	CE2	TYR	L	173	18.194	18.623	24.468	1.00	23.61	L C
20	ATOM	1358	CZ	TYR	L	173	19.179	19.382	23.884	1.00	31.64	L C
	ATOM	1359	OH	TYR	L	173	19.533	19.124	22.587	1.00	50.61	L O
	ATOM	1360	N	SER	L	174	16.172	20.261	30.396	1.00	32.25	L N
	ATOM	1361	CA	SER	L	174	15.932	20.103	31.810	1.00	33.25	L C
	ATOM	1362	C	SER	L	174	15.820	18.624	32.103	1.00	31.14	L C
25	ATOM	1363	O	SER	L	174	15.363	17.840	31.270	1.00	35.74	L O
	ATOM	1364	CB	SER	L	174	14.644	20.817	32.210	1.00	34.96	L C
	ATOM	1365	OG	SER	L	174	14.723	22.191	31.872	1.00	44.21	L O
	ATOM	1366	N	MET	L	175	16.264	18.235	33.283	1.00	32.45	L N
	ATOM	1367	CA	MET	L	175	16.185	16.848	33.665	1.00	33.65	L C
30	ATOM	1368	C	MET	L	175	15.658	16.798	35.083	1.00	36.03	L C
	ATOM	1369	O	MET	L	175	15.931	17.675	35.895	1.00	37.60	L O
	ATOM	1370	CB	MET	L	175	17.555	16.169	33.576	1.00	34.51	L C
	ATOM	1371	CG	MET	L	175	18.065	15.622	34.890	1.00	33.17	L C
	ATOM	1372	SD	MET	L	175	18.885	14.022	34.685	1.00	50.79	L S
35	ATOM	1373	CE	MET	L	175	17.718	12.956	35.395	1.00	51.77	L C
	ATOM	1374	N	SER	L	176	14.872	15.769	35.352	1.00	38.28	L N
	ATOM	1375	CA	SER	L	176	14.285	15.553	36.650	1.00	30.79	L C
	ATOM	1376	C	SER	L	176	14.794	14.211	37.167	1.00	33.00	L C
	ATOM	1377	O	SER	L	176	14.968	13.256	36.388	1.00	36.35	L O
40	ATOM	1378	CB	SER	L	176	12.766	15.526	36.510	1.00	29.60	L C
	ATOM	1379	OG	SER	L	176	12.140	15.055	37.680	1.00	25.85	L O
	ATOM	1380	N	SER	L	177	15.044	14.137	38.473	1.00	34.20	L N
	ATOM	1381	CA	SER	L	177	15.509	12.887	39.060	1.00	31.30	L C
	ATOM	1382	C	SER	L	177	14.787	12.492	40.349	1.00	30.60	L C
45	ATOM	1383	O	SER	L	177	14.511	13.325	41.216	1.00	34.61	L O
	ATOM	1384	CB	SER	L	177	17.004	12.939	39.306	1.00	22.17	L C
	ATOM	1385	OG	SER	L	177	17.480	11.618	39.257	1.00	35.64	L O
	ATOM	1386	N	THR	L	178	14.500	11.205	40.480	1.00	28.83	L N
	ATOM	1387	CA	THR	L	178	13.783	10.744	41.646	1.00	28.12	L C
50	ATOM	1388	C	THR	L	178	14.378	9.497	42.287	1.00	33.56	L C
	ATOM	1389	O	THR	L	178	14.527	8.460	41.644	1.00	34.19	L O
	ATOM	1390	CB	THR	L	178	12.303	10.452	41.288	1.00	29.07	L C
	ATOM	1391	OG1	THR	L	178	11.700	11.620	40.726	1.00	34.69	L O
	ATOM	1392	CG2	THR	L	178	11.526	10.050	42.520	1.00	38.66	L C
55	ATOM	1393	N	LEU	L	179	14.717	9.609	43.565	1.00	37.13	L N
	ATOM	1394	CA	LEU	L	179	15.238	8.478	44.313	1.00	37.36	L C
	ATOM	1395	C	LEU	L	179	14.133	8.072	45.294	1.00	38.67	L C
	ATOM	1396	O	LEU	L	179	13.803	8.813	46.219	1.00	46.22	L O
	ATOM	1397	CB	LEU	L	179	16.513	8.852	45.076	1.00	38.33	L C
60	ATOM	1398	CG	LEU	L	179	16.937	7.711	46.013	1.00	39.81	L C
	ATOM	1399	CD1	LEU	L	179	16.877	6.398	45.265	1.00	36.12	L C

	ATOM	1400	CD2	LEU	L	179	18.331	7.964	46.568	1.00	42.75	L C
	ATOM	1401	N	THR	L	180	13.549	6.905	45.083	1.00	35.66	L N
	ATOM	1402	CA	THR	L	180	12.478	6.453	45.947	1.00	40.70	L C
	ATOM	1403	C	THR	L	180	13.017	5.573	47.059	1.00	46.91	L C
5	ATOM	1404	O	THR	L	180	13.874	4.712	46.828	1.00	55.35	L O
	ATOM	1405	CB	THR	L	180	11.420	5.660	45.155	1.00	42.81	L C
	ATOM	1406	OG1	THR	L	180	10.983	6.437	44.033	1.00	53.11	L O
	ATOM	1407	CG2	THR	L	180	10.227	5.338	46.032	1.00	40.36	L C
	ATOM	1408	N	LEU	L	181	12.502	5.796	48.264	1.00	44.68	L N
10	ATOM	1409	CA	LEU	L	181	12.896	5.043	49.440	1.00	38.18	L C
	ATOM	1410	C	LEU	L	181	11.626	4.660	50.161	1.00	42.65	L C
	ATOM	1411	O	LEU	L	181	10.580	5.241	49.917	1.00	47.04	L O
	ATOM	1412	CB	LEU	L	181	13.720	5.920	50.375	1.00	36.56	L C
	ATOM	1413	CG	LEU	L	181	14.854	6.721	49.750	1.00	35.79	L C
15	ATOM	1414	CD1	LEU	L	181	15.411	7.699	50.772	1.00	23.79	L C
	ATOM	1415	CD2	LEU	L	181	15.929	5.772	49.243	1.00	48.44	L C
	ATOM	1416	N	THR	L	182	11.716	3.675	51.044	1.00	49.61	L N
	ATOM	1417	CA	THR	L	182	10.571	3.276	51.857	1.00	45.22	L C
	ATOM	1418	C	THR	L	182	10.639	4.266	53.023	1.00	40.89	L C
20	ATOM	1419	O	THR	L	182	11.717	4.776	53.336	1.00	41.00	L O
	ATOM	1420	CB	THR	L	182	10.733	1.838	52.423	1.00	47.80	L C
	ATOM	1421	OG1	THR	L	182	11.879	1.786	53.287	1.00	53.75	L O
	ATOM	1422	CG2	THR	L	182	10.914	0.832	51.308	1.00	50.23	L C
	ATOM	1423	N	LYS	L	183	9.507	4.540	53.662	1.00	45.54	L N
25	ATOM	1424	CA	LYS	L	183	9.465	5.472	54.793	1.00	48.11	L C
	ATOM	1425	C	LYS	L	183	10.481	5.104	55.898	1.00	51.20	L C
	ATOM	1426	O	LYS	L	183	10.869	5.951	56.711	1.00	49.30	L O
	ATOM	1427	CB	LYS	L	183	8.049	5.521	55.387	1.00	43.28	L C
	ATOM	1428	CG	LYS	L	183	7.840	6.643	56.385	1.00	40.50	L C
30	ATOM	1429	CD	LYS	L	183	6.617	6.417	57.255	1.00	66.92	L C
	ATOM	1430	CE	LYS	L	183	6.771	5.152	58.089	1.00	77.94	L C
	ATOM	1431	NZ	LYS	L	183	5.654	4.941	59.056	1.00	73.24	L N
	ATOM	1432	N	ASP	L	184	10.913	3.843	55.917	1.00	52.45	L N
	ATOM	1433	CA	ASP	L	184	11.811	3.416	56.984	1.00	53.02	L C
35	ATOM	1434	C	ASP	L	184	13.237	3.930	56.763	1.00	48.73	L C
	ATOM	1435	O	ASP	L	184	13.807	4.649	57.573	1.00	51.85	L O
	ATOM	1436	CB	ASP	L	184	11.809	1.885	57.027	1.00	57.50	L C
	ATOM	1437	CG	ASP	L	184	10.705	1.407	57.960	1.00	71.44	L C
	ATOM	1438	OD1	ASP	L	184	10.099	2.257	58.612	1.00	66.16	L O
40	ATOM	1439	OD2	ASP	L	184	10.460	0.205	58.021	1.00	81.91	L O
	ATOM	1440	N	GLU	L	185	13.832	3.497	55.635	1.00	43.10	L N
	ATOM	1441	CA	GLU	L	185	15.185	3.944	55.323	1.00	42.13	L C
	ATOM	1442	C	GLU	L	185	15.286	5.470	55.334	1.00	45.22	L C
	ATOM	1443	O	GLU	L	185	16.246	6.060	55.813	1.00	50.22	L O
45	ATOM	1444	CB	GLU	L	185	15.566	3.406	53.943	1.00	43.08	L C
	ATOM	1445	CG	GLU	L	185	16.945	3.889	53.492	1.00	22.88	L C
	ATOM	1446	CD	GLU	L	185	18.015	3.077	54.186	1.00	39.62	L C
	ATOM	1447	OE1	GLU	L	185	17.699	2.384	55.144	1.00	47.97	L O
	ATOM	1448	OE2	GLU	L	185	19.166	3.140	53.756	1.00	53.07	L O
50	ATOM	1449	N	TYR	L	186	14.262	6.113	54.741	1.00	42.12	L N
	ATOM	1450	CA	TYR	L	186	14.233	7.570	54.754	1.00	40.44	L C
	ATOM	1451	C	TYR	L	186	14.366	8.112	56.179	1.00	40.33	L C
	ATOM	1452	O	TYR	L	186	15.068	9.081	56.442	1.00	46.64	L O
	ATOM	1453	CB	TYR	L	186	12.909	8.028	54.140	1.00	41.32	L C
55	ATOM	1454	CG	TYR	L	186	12.823	9.514	54.177	1.00	38.85	L C
	ATOM	1455	CD1	TYR	L	186	13.822	10.281	53.582	1.00	29.72	L C
	ATOM	1456	CD2	TYR	L	186	11.778	10.146	54.851	1.00	37.41	L C
	ATOM	1457	CE1	TYR	L	186	13.779	11.665	53.663	1.00	28.90	L C
	ATOM	1458	CE2	TYR	L	186	11.740	11.529	54.940	1.00	32.41	L C
60	ATOM	1459	CZ	TYR	L	186	12.739	12.287	54.358	1.00	30.10	L C
	ATOM	1460	OH	TYR	L	186	12.710	13.665	54.446	1.00	42.62	L O

	ATOM	1461	N	GLU	L	187	13.695	7.510	57.147	1.00	44.49	L N
	ATOM	1462	CA	GLU	L	187	13.790	7.981	58.520	1.00	46.87	L C
	ATOM	1463	C	GLU	L	187	15.085	7.549	59.202	1.00	48.70	L C
	ATOM	1464	O	GLU	L	187	15.510	8.156	60.176	1.00	50.91	L O
5	ATOM	1465	CB	GLU	L	187	12.573	7.503	59.306	1.00	42.22	L C
	ATOM	1466	CG	GLU	L	187	11.368	8.395	59.085	1.00	62.96	L C
	ATOM	1467	CD	GLU	L	187	10.044	7.666	59.223	1.00	86.23	L C
	ATOM	1468	OE1	GLU	L	187	9.906	6.832	60.150	1.00	80.19	L O
	ATOM	1469	OE2	GLU	L	187	9.135	7.943	58.405	1.00	94.40	L O
10	ATOM	1470	N	ARG	L	188	15.725	6.512	58.675	1.00	46.28	L N
	ATOM	1471	CA	ARG	L	188	16.965	6.029	59.252	1.00	44.52	L C
	ATOM	1472	C	ARG	L	188	18.131	6.934	58.890	1.00	46.66	L C
	ATOM	1473	O	ARG	L	188	19.235	6.767	59.406	1.00	52.73	L O
	ATOM	1474	CB	ARG	L	188	17.269	4.623	58.754	1.00	48.29	L C
15	ATOM	1475	CG	ARG	L	188	16.216	3.585	59.050	1.00	58.26	L C
	ATOM	1476	CD	ARG	L	188	16.723	2.255	58.545	1.00	65.07	L C
	ATOM	1477	NE	ARG	L	188	18.049	2.009	59.098	1.00	63.58	L N
	ATOM	1478	CZ	ARG	L	188	18.257	1.507	60.307	1.00	66.13	L C
	ATOM	1479	NH1	ARG	L	188	17.220	1.187	61.069	1.00	54.33	L N
20	ATOM	1480	NH2	ARG	L	188	19.496	1.357	60.761	1.00	56.10	L N
	ATOM	1481	N	HIS	L	189	17.890	7.882	57.993	1.00	44.20	L N
	ATOM	1482	CA	HIS	L	189	18.897	8.764	57.427	1.00	42.62	L C
	ATOM	1483	C	HIS	L	189	18.505	10.231	57.645	1.00	45.89	L C
	ATOM	1484	O	HIS	L	189	17.414	10.556	58.093	1.00	46.26	L O
25	ATOM	1485	CB	HIS	L	189	19.037	8.429	55.935	1.00	45.73	L C
	ATOM	1486	CG	HIS	L	189	19.693	7.071	55.785	1.00	40.19	L C
	ATOM	1487	ND1	HIS	L	189	20.953	6.813	56.208	1.00	51.00	L N
	ATOM	1488	CD2	HIS	L	189	19.093	5.857	55.443	1.00	59.83	L C
	ATOM	1489	CE1	HIS	L	189	21.100	5.477	56.140	1.00	47.50	L C
30	ATOM	1490	NE2	HIS	L	189	20.000	4.877	55.685	1.00	61.66	L N
	ATOM	1491	N	ASN	L	190	19.455	11.138	57.354	1.00	50.73	L N
	ATOM	1492	CA	ASN	L	190	19.221	12.519	57.748	1.00	55.47	L C
	ATOM	1493	C	ASN	L	190	19.747	13.531	56.728	1.00	53.43	L C
	ATOM	1494	O	ASN	L	190	19.229	14.627	56.573	1.00	62.98	L O
35	ATOM	1495	CB	ASN	L	190	19.865	12.710	59.122	1.00	57.60	L C
	ATOM	1496	CG	ASN	L	190	20.194	14.160	59.395	1.00	71.59	L C
	ATOM	1497	OD1	ASN	L	190	19.343	14.991	59.710	1.00	84.26	L O
	ATOM	1498	ND2	ASN	L	190	21.512	14.435	59.365	1.00	74.56	L N
	ATOM	1499	N	SER	L	191	20.835	13.144	56.039	1.00	48.57	L N
40	ATOM	1500	CA	SER	L	191	21.348	13.985	54.965	1.00	48.43	L C
	ATOM	1501	C	SER	L	191	21.082	13.358	53.597	1.00	48.76	L C
	ATOM	1502	O	SER	L	191	21.648	12.330	53.245	1.00	49.95	L O
	ATOM	1503	CB	SER	L	191	22.855	14.138	55.160	1.00	48.79	L C
	ATOM	1504	OG	SER	L	191	23.356	15.077	54.204	1.00	58.59	L O
45	ATOM	1505	N	TYR	L	192	20.292	14.056	52.790	1.00	48.13	L N
	ATOM	1506	CA	TYR	L	192	20.040	13.643	51.414	1.00	45.11	L C
	ATOM	1507	C	TYR	L	192	20.650	14.655	50.465	1.00	42.96	L C
	ATOM	1508	O	TYR	L	192	20.321	15.835	50.508	1.00	38.34	L O
	ATOM	1509	CB	TYR	L	192	18.537	13.507	51.187	1.00	45.18	L C
50	ATOM	1510	CG	TYR	L	192	17.948	12.438	52.077	1.00	42.77	L C
	ATOM	1511	CD1	TYR	L	192	17.896	12.600	53.459	1.00	22.56	L C
	ATOM	1512	CD2	TYR	L	192	17.518	11.239	51.546	1.00	38.31	L C
	ATOM	1513	CE1	TYR	L	192	17.442	11.597	54.275	1.00	25.40	L C
	ATOM	1514	CE2	TYR	L	192	17.061	10.231	52.357	1.00	44.54	L C
55	ATOM	1515	CZ	TYR	L	192	17.026	10.412	53.718	1.00	37.89	L C
	ATOM	1516	OH	TYR	L	192	16.567	9.387	54.500	1.00	32.01	L O
	ATOM	1517	N	THR	L	193	21.551	14.175	49.614	1.00	45.21	L N
	ATOM	1518	CA	THR	L	193	22.250	15.023	48.673	1.00	45.18	L C
	ATOM	1519	C	THR	L	193	22.083	14.665	47.212	1.00	44.18	L C
60	ATOM	1520	O	THR	L	193	22.091	13.501	46.824	1.00	45.22	L O
	ATOM	1521	CB	THR	L	193	23.756	15.056	48.993	1.00	47.97	L C

ATOM	1522	OG1	THR	L	193	24.036	16.172	49.837	1.00	49.86	L	O
ATOM	1523	CG2	THR	L	193	24.587	15.168	47.717	1.00	56.55	L	C
ATOM	1524	N	CYS	L	194	21.958	15.708	46.407	1.00	45.78	L	N
ATOM	1525	CA	CYS	L	194	21.804	15.595	44.971	1.00	45.45	L	C
ATOM	1526	C	CYS	L	194	22.924	16.422	44.319	1.00	41.02	L	C
ATOM	1527	O	CYS	L	194	23.002	17.627	44.525	1.00	44.64	L	O
ATOM	1528	CB	CYS	L	194	20.411	16.118	44.584	1.00	45.40	L	C
ATOM	1529	SG	CYS	L	194	20.133	16.300	42.804	1.00	69.21	L	S
ATOM	1530	N	GLU	L	195	23.798	15.772	43.551	1.00	39.80	L	N
ATOM	1531	CA	GLU	L	195	24.909	16.467	42.893	1.00	42.67	L	C
ATOM	1532	C	GLU	L	195	24.837	16.414	41.366	1.00	41.70	L	C
ATOM	1533	O	GLU	L	195	24.670	15.347	40.782	1.00	36.42	L	O
ATOM	1534	CB	GLU	L	195	26.246	15.869	43.326	1.00	46.01	L	C
ATOM	1535	CG	GLU	L	195	26.367	15.583	44.810	1.00	64.77	L	C
ATOM	1536	CD	GLU	L	195	27.797	15.282	45.221	1.00	73.00	L	C
ATOM	1537	OE1	GLU	L	195	28.569	14.796	44.364	1.00	56.32	L	O
ATOM	1538	OE2	GLU	L	195	28.145	15.522	46.401	1.00	72.72	L	O
ATOM	1539	N	ALA	L	196	24.990	17.568	40.723	1.00	40.13	L	N
ATOM	1540	CA	ALA	L	196	24.938	17.639	39.267	1.00	42.38	L	C
ATOM	1541	C	ALA	L	196	26.315	17.873	38.670	1.00	47.42	L	C
ATOM	1542	O	ALA	L	196	27.060	18.740	39.123	1.00	45.43	L	O
ATOM	1543	CB	ALA	L	196	23.990	18.747	38.827	1.00	40.85	L	C
ATOM	1544	N	THR	L	197	26.644	17.096	37.642	1.00	54.27	L	N
ATOM	1545	CA	THR	L	197	27.938	17.210	36.976	1.00	56.97	L	C
ATOM	1546	C	THR	L	197	27.707	17.576	35.519	1.00	52.12	L	C
ATOM	1547	O	THR	L	197	27.154	16.795	34.756	1.00	54.86	L	O
ATOM	1548	CB	THR	L	197	28.723	15.879	37.032	1.00	60.44	L	C
ATOM	1549	OG1	THR	L	197	28.656	15.329	38.357	1.00	55.79	L	O
ATOM	1550	CG2	THR	L	197	30.177	16.113	36.668	1.00	66.98	L	C
ATOM	1551	N	HIS	L	198	28.135	18.770	35.141	1.00	52.54	L	N
ATOM	1552	CA	HIS	L	198	27.958	19.255	33.783	1.00	49.05	L	C
ATOM	1553	C	HIS	L	198	29.244	19.944	33.327	1.00	50.31	L	C
ATOM	1554	O	HIS	L	198	29.992	20.490	34.143	1.00	51.38	L	O
ATOM	1555	CB	HIS	L	198	26.769	20.226	33.750	1.00	48.32	L	C
ATOM	1556	CG	HIS	L	198	26.396	20.692	32.376	1.00	55.90	L	C
ATOM	1557	ND1	HIS	L	198	26.284	19.834	31.302	1.00	61.36	L	N
ATOM	1558	CD2	HIS	L	198	26.068	21.921	31.912	1.00	45.28	L	C
ATOM	1559	CE1	HIS	L	198	25.904	20.515	30.236	1.00	64.72	L	C
ATOM	1560	NE2	HIS	L	198	25.764	21.783	30.579	1.00	54.41	L	N
ATOM	1561	N	LYS	L	199	29.501	19.917	32.025	1.00	54.03	L	N
ATOM	1562	CA	LYS	L	199	30.708	20.526	31.484	1.00	53.00	L	C
ATOM	1563	C	LYS	L	199	30.883	21.998	31.851	1.00	55.09	L	C
ATOM	1564	O	LYS	L	199	31.990	22.529	31.768	1.00	59.80	L	O
ATOM	1565	CB	LYS	L	199	30.735	20.383	29.965	1.00	51.53	L	C
ATOM	1566	CG	LYS	L	199	29.631	21.136	29.262	1.00	54.50	L	C
ATOM	1567	CD	LYS	L	199	29.886	21.211	27.768	1.00	69.27	L	C
ATOM	1568	CE	LYS	L	199	31.152	21.991	27.463	1.00	89.21	L	C
ATOM	1569	NZ	LYS	L	199	31.310	22.208	25.993	1.00	98.42	L	N
ATOM	1570	N	THR	L	200	29.807	22.662	32.256	1.00	52.50	L	N
ATOM	1571	CA	THR	L	200	29.900	24.074	32.613	1.00	55.94	L	C
ATOM	1572	C	THR	L	200	30.727	24.351	33.871	1.00	59.72	L	C
ATOM	1573	O	THR	L	200	30.788	25.486	34.347	1.00	66.15	L	O
ATOM	1574	CB	THR	L	200	28.513	24.686	32.803	1.00	48.37	L	C
ATOM	1575	OG1	THR	L	200	27.731	23.834	33.643	1.00	59.04	L	O
ATOM	1576	CG2	THR	L	200	27.830	24.864	31.473	1.00	53.65	L	C
ATOM	1577	N	SER	L	201	31.359	23.313	34.407	1.00	62.13	L	N
ATOM	1578	CA	SER	L	201	32.188	23.453	35.599	1.00	63.39	L	C
ATOM	1579	C	SER	L	201	32.916	22.159	35.938	1.00	61.33	L	C
ATOM	1580	O	SER	L	201	32.604	21.089	35.409	1.00	60.64	L	O
ATOM	1581	CB	SER	L	201	31.341	23.885	36.792	1.00	61.74	L	C
ATOM	1582	OG	SER	L	201	30.356	22.917	37.086	1.00	76.78	L	O

ATOM	1583	N	THR	L	202	33.892	22.273	36.828	1.00	63.77	L	N
ATOM	1584	CA	THR	L	202	34.687	21.131	37.267	1.00	68.80	L	C
ATOM	1585	C	THR	L	202	34.141	20.557	38.568	1.00	69.42	L	C
ATOM	1586	O	THR	L	202	34.216	19.353	38.808	1.00	69.26	L	O
ATOM	1587	CB	THR	L	202	36.158	21.536	37.473	1.00	72.06	L	C
ATOM	1588	OG1	THR	L	202	36.217	22.783	38.188	1.00	66.18	L	O
ATOM	1589	CG2	THR	L	202	36.861	21.665	36.123	1.00	68.77	L	C
ATOM	1590	N	SER	L	203	33.599	21.427	39.409	1.00	71.13	L	N
ATOM	1591	CA	SER	L	203	33.020	20.997	40.673	1.00	74.47	L	C
ATOM	1592	C	SER	L	203	31.526	20.732	40.462	1.00	71.15	L	C
ATOM	1593	O	SER	L	203	30.829	21.524	39.832	1.00	69.36	L	O
ATOM	1594	CB	SER	L	203	33.229	22.078	41.743	1.00	76.75	L	C
ATOM	1595	OG	SER	L	203	32.825	23.358	41.274	1.00	81.99	L	O
ATOM	1596	N	PRO	L	204	31.018	19.605	40.979	1.00	67.69	L	N
ATOM	1597	CA	PRO	L	204	29.595	19.297	40.808	1.00	62.61	L	C
ATOM	1598	C	PRO	L	204	28.712	20.237	41.606	1.00	56.97	L	C
ATOM	1599	O	PRO	L	204	29.052	20.610	42.722	1.00	62.74	L	O
ATOM	1600	CB	PRO	L	204	29.493	17.853	41.296	1.00	56.97	L	C
ATOM	1601	CG	PRO	L	204	30.502	17.821	42.393	1.00	66.29	L	C
ATOM	1602	CD	PRO	L	204	31.687	18.554	41.765	1.00	70.41	L	C
ATOM	1603	N	ILE	L	205	27.588	20.627	41.016	1.00	51.68	L	N
ATOM	1604	CA	ILE	L	205	26.640	21.509	41.678	1.00	46.32	L	C
ATOM	1605	C	ILE	L	205	25.886	20.662	42.696	1.00	45.80	L	C
ATOM	1606	O	ILE	L	205	25.086	19.801	42.333	1.00	40.05	L	O
ATOM	1607	CB	ILE	L	205	25.656	22.094	40.672	1.00	45.71	L	C
ATOM	1608	CG1	ILE	L	205	26.431	22.817	39.578	1.00	42.60	L	C
ATOM	1609	CG2	ILE	L	205	24.694	23.039	41.371	1.00	48.15	L	C
ATOM	1610	CD1	ILE	L	205	25.549	23.579	38.620	1.00	57.30	L	C
ATOM	1611	N	VAL	L	206	26.147	20.909	43.972	1.00	42.27	L	N
ATOM	1612	CA	VAL	L	206	25.525	20.118	45.017	1.00	45.01	L	C
ATOM	1613	C	VAL	L	206	24.378	20.803	45.743	1.00	43.48	L	C
ATOM	1614	O	VAL	L	206	24.465	21.965	46.114	1.00	54.37	L	O
ATOM	1615	CB	VAL	L	206	26.584	19.666	46.058	1.00	42.29	L	C
ATOM	1616	CG1	VAL	L	206	25.967	18.715	47.046	1.00	48.63	L	C
ATOM	1617	CG2	VAL	L	206	27.750	18.992	45.358	1.00	38.47	L	C
ATOM	1618	N	LYS	L	207	23.296	20.064	45.931	1.00	41.43	L	N
ATOM	1619	CA	LYS	L	207	22.130	20.569	46.631	1.00	45.71	L	C
ATOM	1620	C	LYS	L	207	21.689	19.478	47.584	1.00	45.03	L	C
ATOM	1621	O	LYS	L	207	21.695	18.302	47.238	1.00	46.04	L	O
ATOM	1622	CB	LYS	L	207	21.003	20.886	45.654	1.00	49.37	L	C
ATOM	1623	CG	LYS	L	207	21.283	22.063	44.750	1.00	55.07	L	C
ATOM	1624	CD	LYS	L	207	21.395	23.357	45.532	1.00	64.96	L	C
ATOM	1625	CE	LYS	L	207	21.738	24.505	44.598	1.00	71.81	L	C
ATOM	1626	NZ	LYS	L	207	21.872	25.798	45.310	1.00	78.53	L	N
ATOM	1627	N	SER	L	208	21.296	19.859	48.787	1.00	44.02	L	N
ATOM	1628	CA	SER	L	208	20.889	18.856	49.747	1.00	49.80	L	C
ATOM	1629	C	SER	L	208	20.149	19.432	50.931	1.00	50.94	L	C
ATOM	1630	O	SER	L	208	20.203	20.627	51.198	1.00	53.70	L	O
ATOM	1631	CB	SER	L	208	22.117	18.103	50.243	1.00	53.51	L	C
ATOM	1632	OG	SER	L	208	23.078	19.005	50.763	1.00	59.07	L	O
ATOM	1633	N	PHE	L	209	19.466	18.550	51.646	1.00	51.91	L	N
ATOM	1634	CA	PHE	L	209	18.711	18.933	52.822	1.00	51.34	L	C
ATOM	1635	C	PHE	L	209	18.914	17.894	53.923	1.00	49.64	L	C
ATOM	1636	O	PHE	L	209	19.453	16.815	53.688	1.00	54.59	L	O
ATOM	1637	CB	PHE	L	209	17.227	19.038	52.464	1.00	49.20	L	C
ATOM	1638	CG	PHE	L	209	16.602	17.728	52.091	1.00	46.90	L	C
ATOM	1639	CD1	PHE	L	209	16.194	16.836	53.064	1.00	37.57	L	C
ATOM	1640	CD2	PHE	L	209	16.434	17.380	50.761	1.00	53.34	L	C
ATOM	1641	CE1	PHE	L	209	15.630	15.625	52.714	1.00	47.31	L	C
ATOM	1642	CE2	PHE	L	209	15.870	16.172	50.411	1.00	36.37	L	C
ATOM	1643	CZ	PHE	L	209	15.469	15.296	51.386	1.00	34.65	L	C

ATOM	1644	N	ASN	L	210	18.487	18.228	55.131	1.00	49.60	L	N
ATOM	1645	CA	ASN	L	210	18.588	17.302	56.242	1.00	46.61	L	C
ATOM	1646	C	ASN	L	210	17.193	17.008	56.761	1.00	48.63	L	C
ATOM	1647	O	ASN	L	210	16.450	17.912	57.130	1.00	43.72	L	O
ATOM	1648	CB	ASN	L	210	19.462	17.888	57.343	1.00	42.76	L	C
ATOM	1649	CG	ASN	L	210	20.935	17.681	57.073	1.00	60.02	L	C
ATOM	1650	OD1	ASN	L	210	21.635	17.059	57.864	1.00	69.23	L	O
ATOM	1651	ND2	ASN	L	210	21.410	18.185	55.935	1.00	75.72	L	N
ATOM	1652	N	ARG	L	211	16.835	15.732	56.762	1.00	50.53	L	N
ATOM	1653	CA	ARG	L	211	15.531	15.302	57.231	1.00	54.11	L	C
ATOM	1654	C	ARG	L	211	15.280	15.835	58.631	1.00	62.11	L	C
ATOM	1655	O	ARG	L	211	14.147	16.169	58.983	1.00	63.88	L	O
ATOM	1656	CB	ARG	L	211	15.468	13.781	57.247	1.00	53.56	L	C
ATOM	1657	CG	ARG	L	211	14.114	13.211	57.586	1.00	44.47	L	C
ATOM	1658	CD	ARG	L	211	14.210	11.713	57.614	1.00	54.91	L	C
ATOM	1659	NE	ARG	L	211	15.231	11.291	58.565	1.00	58.23	L	N
ATOM	1660	CZ	ARG	L	211	15.003	11.066	59.855	1.00	72.82	L	C
ATOM	1661	NH1	ARG	L	211	13.779	11.217	60.349	1.00	73.06	L	N
ATOM	1662	NH2	ARG	L	211	16.001	10.703	60.653	1.00	62.59	L	N
ATOM	1663	OXT	ARG	L	211	16.349	15.915	59.421	1.00	69.05	L	O
TER	1664		ARG	L	211							
ATOM	1665	N	GLU	H	1	-11.229	28.751	10.621	1.00	71.36	H	N
ATOM	1666	CA	GLU	H	1	-10.037	28.156	11.214	1.00	65.32	H	C
ATOM	1667	C	GLU	H	1	-10.186	26.642	11.378	1.00	58.26	H	C
ATOM	1668	O	GLU	H	1	-10.717	26.147	12.364	1.00	57.65	H	O
ATOM	1669	CB	GLU	H	1	-9.807	28.808	12.578	1.00	63.19	H	C
ATOM	1670	CG	GLU	H	1	-9.166	27.849	13.582	1.00	71.03	H	C
ATOM	1671	CD	GLU	H	1	-9.800	28.047	14.940	1.00	87.73	H	C
ATOM	1672	OE1	GLU	H	1	-9.507	29.044	15.584	1.00	95.88	H	O
ATOM	1673	OE2	GLU	H	1	-10.586	27.192	15.346	1.00	96.84	H	O
ATOM	1674	N	VAL	H	2	-9.728	25.874	10.404	1.00	56.34	H	N
ATOM	1675	CA	VAL	H	2	-9.825	24.427	10.381	1.00	45.11	H	C
ATOM	1676	C	VAL	H	2	-9.533	23.838	11.759	1.00	40.35	H	C
ATOM	1677	O	VAL	H	2	-8.616	24.234	12.465	1.00	44.32	H	O
ATOM	1678	CB	VAL	H	2	-8.839	23.903	9.338	1.00	46.79	H	C
ATOM	1679	CG1	VAL	H	2	-8.720	22.384	9.446	1.00	37.72	H	C
ATOM	1680	CG2	VAL	H	2	-9.339	24.265	7.948	1.00	32.94	H	C
ATOM	1681	N	LYS	H	3	-10.391	22.889	12.155	1.00	39.63	H	N
ATOM	1682	CA	LYS	H	3	-10.299	22.350	13.496	1.00	40.75	H	C
ATOM	1683	C	LYS	H	3	-10.578	20.850	13.492	1.00	38.29	H	C
ATOM	1684	O	LYS	H	3	-11.632	20.381	13.091	1.00	46.18	H	O
ATOM	1685	CB	LYS	H	3	-11.363	23.068	14.323	1.00	42.35	H	C
ATOM	1686	CG	LYS	H	3	-11.099	23.026	15.829	1.00	53.48	H	C
ATOM	1687	CD	LYS	H	3	-12.072	23.935	16.584	1.00	97.53	H	C
ATOM	1688	CE	LYS	H	3	-12.025	23.731	18.102	1.00	126.21	H	C
ATOM	1689	NZ	LYS	H	3	-12.982	24.629	18.743	1.00	139.14	H	N
ATOM	1690	N	LEU	H	4	-9.564	20.084	13.906	1.00	36.69	H	N
ATOM	1691	CA	LEU	H	4	-9.766	18.650	13.973	1.00	31.82	H	C
ATOM	1692	C	LEU	H	4	-9.672	18.147	15.411	1.00	36.95	H	C
ATOM	1693	O	LEU	H	4	-8.625	18.185	16.044	1.00	35.06	H	O
ATOM	1694	CB	LEU	H	4	-8.723	17.970	13.083	1.00	27.41	H	C
ATOM	1695	CG	LEU	H	4	-8.916	18.323	11.603	1.00	23.69	H	C
ATOM	1696	CD1	LEU	H	4	-7.819	17.725	10.718	1.00	29.88	H	C
ATOM	1697	CD2	LEU	H	4	-10.246	17.817	11.041	1.00	23.22	H	C
ATOM	1698	N	VAL	H	5	-10.765	17.696	16.007	1.00	43.69	H	N
ATOM	1699	CA	VAL	H	5	-10.733	17.251	17.385	1.00	41.35	H	C
ATOM	1700	C	VAL	H	5	-11.037	15.772	17.453	1.00	38.94	H	C
ATOM	1701	O	VAL	H	5	-12.140	15.350	17.142	1.00	42.95	H	O
ATOM	1702	CB	VAL	H	5	-11.757	18.027	18.225	1.00	37.98	H	C
ATOM	1703	CG1	VAL	H	5	-11.835	17.437	19.607	1.00	40.24	H	C
ATOM	1704	CG2	VAL	H	5	-11.357	19.487	18.296	1.00	32.84	H	C

	ATOM	1705	N	GLU	H	6	-10.044	14.987	17.842	1.00	38.45	H N
	ATOM	1706	CA	GLU	H	6	-10.251	13.552	18.025	1.00	43.30	H C
	ATOM	1707	C	GLU	H	6	-10.849	13.238	19.398	1.00	47.18	H C
	ATOM	1708	O	GLU	H	6	-11.081	14.111	20.225	1.00	53.60	H O
5	ATOM	1709	CB	GLU	H	6	-8.899	12.855	17.872	1.00	38.50	H C
	ATOM	1710	CG	GLU	H	6	-8.397	12.874	16.428	1.00	34.54	H C
	ATOM	1711	CD	GLU	H	6	-7.318	13.922	16.284	1.00	28.64	H C
	ATOM	1712	OE1	GLU	H	6	-6.427	13.847	15.454	1.00	39.15	H O
	ATOM	1713	OE2	GLU	H	6	-7.420	14.934	17.168	1.00	29.23	H O
10	ATOM	1714	N	SER	H	7	-11.141	11.940	19.613	1.00	51.21	H N
	ATOM	1715	CA	SER	H	7	-11.734	11.542	20.886	1.00	53.01	H C
	ATOM	1716	C	SER	H	7	-12.123	10.061	20.902	1.00	53.06	H C
	ATOM	1717	O	SER	H	7	-12.030	9.347	19.912	1.00	44.63	H O
	ATOM	1718	CB	SER	H	7	-12.975	12.403	21.122	1.00	54.35	H C
15	ATOM	1719	OG	SER	H	7	-13.927	12.149	20.088	1.00	45.65	H O
	ATOM	1720	N	GLY	H	8	-12.533	9.597	22.098	1.00	55.02	H N
	ATOM	1721	CA	GLY	H	8	-12.996	8.217	22.227	1.00	56.76	H C
	ATOM	1722	C	GLY	H	8	-11.834	7.227	22.355	1.00	53.98	H C
	ATOM	1723	O	GLY	H	8	-11.927	6.062	21.992	1.00	55.04	H O
20	ATOM	1724	N	GLY	H	9	-10.697	7.741	22.861	1.00	48.90	H N
	ATOM	1725	CA	GLY	H	9	-9.519	6.888	22.992	1.00	49.84	H C
	ATOM	1726	C	GLY	H	9	-9.206	6.567	24.456	1.00	53.72	H C
	ATOM	1727	O	GLY	H	9	-9.129	7.434	25.316	1.00	60.05	H O
	ATOM	1728	N	GLY	H	10	-9.060	5.256	24.731	1.00	47.72	H N
25	ATOM	1729	CA	GLY	H	10	-8.739	4.834	26.090	1.00	52.62	H C
	ATOM	1730	C	GLY	H	10	-7.985	3.502	26.101	1.00	53.34	H C
	ATOM	1731	O	GLY	H	10	-7.434	3.054	25.105	1.00	53.79	H O
	ATOM	1732	N	LEU	H	11	-7.938	2.883	27.295	1.00	51.02	H N
	ATOM	1733	CA	LEU	H	11	-7.249	1.610	27.428	1.00	42.34	H C
30	ATOM	1734	C	LEU	H	11	-8.119	0.453	26.940	1.00	43.65	H C
	ATOM	1735	O	LEU	H	11	-9.337	0.448	27.066	1.00	44.21	H O
	ATOM	1736	CB	LEU	H	11	-6.895	1.413	28.903	1.00	50.20	H C
	ATOM	1737	CG	LEU	H	11	-6.087	0.137	29.144	1.00	36.24	H C
	ATOM	1738	CD1	LEU	H	11	-4.725	0.166	28.443	1.00	43.75	H C
35	ATOM	1739	CD2	LEU	H	11	-5.801	-0.113	30.625	1.00	59.31	H C
	ATOM	1740	N	VAL	H	12	-7.453	-0.533	26.324	1.00	42.94	H N
	ATOM	1741	CA	VAL	H	12	-8.179	-1.712	25.883	1.00	43.16	H C
	ATOM	1742	C	VAL	H	12	-7.340	-2.973	26.063	1.00	47.66	H C
	ATOM	1743	O	VAL	H	12	-6.127	-2.931	26.226	1.00	57.83	H O
40	ATOM	1744	CB	VAL	H	12	-8.535	-1.535	24.407	1.00	40.29	H C
	ATOM	1745	CG1	VAL	H	12	-9.134	-2.832	23.862	1.00	46.80	H C
	ATOM	1746	CG2	VAL	H	12	-9.542	-0.414	24.245	1.00	49.39	H C
	ATOM	1747	N	LYS	H	13	-8.035	-4.121	26.078	1.00	45.71	H N
	ATOM	1748	CA	LYS	H	13	-7.316	-5.381	26.174	1.00	43.89	H C
45	ATOM	1749	C	LYS	H	13	-7.121	-6.008	24.793	1.00	40.39	H C
	ATOM	1750	O	LYS	H	13	-7.975	-5.934	23.920	1.00	46.98	H O
	ATOM	1751	CB	LYS	H	13	-8.117	-6.324	27.071	1.00	45.28	H C
	ATOM	1752	CG	LYS	H	13	-7.818	-6.100	28.554	1.00	67.37	H C
	ATOM	1753	CD	LYS	H	13	-8.511	-4.851	29.102	1.00	88.33	H C
50	ATOM	1754	CE	LYS	H	13	-7.655	-4.105	30.133	1.00	80.99	H C
	ATOM	1755	NZ	LYS	H	13	-6.458	-3.569	29.486	1.00	58.40	H N
	ATOM	1756	N	PRO	H	14	-5.976	-6.651	24.544	1.00	38.88	H N
	ATOM	1757	CA	PRO	H	14	-5.784	-7.265	23.231	1.00	38.32	H C
	ATOM	1758	C	PRO	H	14	-6.971	-8.123	22.837	1.00	44.46	H C
55	ATOM	1759	O	PRO	H	14	-7.434	-8.952	23.617	1.00	52.99	H O
	ATOM	1760	CB	PRO	H	14	-4.496	-8.076	23.401	1.00	37.38	H C
	ATOM	1761	CG	PRO	H	14	-4.370	-8.249	24.877	1.00	40.42	H C
	ATOM	1762	CD	PRO	H	14	-4.849	-6.948	25.435	1.00	35.01	H C
	ATOM	1763	N	GLY	H	15	-7.466	-7.903	21.624	1.00	45.67	H N
60	ATOM	1764	CA	GLY	H	15	-8.601	-8.653	21.119	1.00	39.69	H C
	ATOM	1765	C	GLY	H	15	-9.828	-7.770	21.103	1.00	42.73	H C

ATOM	1766	O	GLY	H	15	-10.789	-8.044	20.389	1.00	43.42	H	O
ATOM	1767	N	GLY	H	16	-9.782	-6.688	21.875	1.00	44.16	H	N
ATOM	1768	CA	GLY	H	16	-10.913	-5.781	21.952	1.00	43.39	H	C
ATOM	1769	C	GLY	H	16	-11.219	-4.862	20.775	1.00	45.04	H	C
ATOM	1770	O	GLY	H	16	-10.566	-4.890	19.721	1.00	34.85	H	O
ATOM	1771	N	SER	H	17	-12.238	-4.030	20.986	1.00	45.85	H	N
ATOM	1772	CA	SER	H	17	-12.700	-3.076	19.994	1.00	44.23	H	C
ATOM	1773	C	SER	H	17	-12.735	-1.670	20.566	1.00	42.88	H	C
ATOM	1774	O	SER	H	17	-12.910	-1.477	21.762	1.00	43.45	H	O
ATOM	1775	CB	SER	H	17	-14.090	-3.463	19.513	1.00	44.97	H	C
ATOM	1776	OG	SER	H	17	-14.056	-4.768	18.969	1.00	64.66	H	O
ATOM	1777	N	LEU	H	18	-12.582	-0.690	19.688	1.00	43.61	H	N
ATOM	1778	CA	LEU	H	18	-12.573	0.704	20.084	1.00	42.03	H	C
ATOM	1779	C	LEU	H	18	-13.007	1.516	18.861	1.00	39.52	H	C
ATOM	1780	O	LEU	H	18	-12.778	1.094	17.721	1.00	39.63	H	O
ATOM	1781	CB	LEU	H	18	-11.155	1.083	20.512	1.00	43.41	H	C
ATOM	1782	CG	LEU	H	18	-10.925	2.488	21.051	1.00	42.39	H	C
ATOM	1783	CD1	LEU	H	18	-11.722	2.666	22.321	1.00	43.36	H	C
ATOM	1784	CD2	LEU	H	18	-9.449	2.701	21.308	1.00	59.30	H	C
ATOM	1785	N	LYS	H	19	-13.640	2.665	19.090	1.00	36.47	H	N
ATOM	1786	CA	LYS	H	19	-13.988	3.483	17.933	1.00	42.76	H	C
ATOM	1787	C	LYS	H	19	-13.744	4.971	18.198	1.00	40.99	H	C
ATOM	1788	O	LYS	H	19	-14.288	5.562	19.121	1.00	42.24	H	O
ATOM	1789	CB	LYS	H	19	-15.465	3.247	17.608	1.00	43.96	H	C
ATOM	1790	CG	LYS	H	19	-15.854	3.803	16.236	1.00	56.00	H	C
ATOM	1791	CD	LYS	H	19	-17.256	4.416	16.235	1.00	45.68	H	C
ATOM	1792	CE	LYS	H	19	-18.247	3.614	15.384	1.00	59.48	H	C
ATOM	1793	NZ	LYS	H	19	-19.100	4.529	14.629	1.00	51.55	H	N
ATOM	1794	N	LEU	H	20	-13.082	5.326	17.249	1.00	39.79	H	N
ATOM	1795	CA	LEU	H	20	-12.538	6.662	17.450	1.00	36.68	H	C
ATOM	1796	C	LEU	H	20	-13.376	7.653	16.679	1.00	34.74	H	C
ATOM	1797	O	LEU	H	20	-14.020	7.303	15.694	1.00	33.37	H	O
ATOM	1798	CB	LEU	H	20	-11.096	6.779	16.945	1.00	40.64	H	C
ATOM	1799	CG	LEU	H	20	-9.905	6.022	17.535	1.00	41.11	H	C
ATOM	1800	CD1	LEU	H	20	-8.614	6.271	16.759	1.00	61.71	H	C
ATOM	1801	CD2	LEU	H	20	-9.778	6.454	18.977	1.00	35.59	H	C
ATOM	1802	N	SER	H	21	-13.497	9.005	16.927	1.00	33.19	H	N
ATOM	1803	CA	SER	H	21	-14.281	9.919	16.122	1.00	40.56	H	C
ATOM	1804	C	SER	H	21	-13.489	11.202	15.983	1.00	42.41	H	C
ATOM	1805	O	SER	H	21	-12.563	11.461	16.753	1.00	44.66	H	O
ATOM	1806	CB	SER	H	21	-15.634	10.204	16.768	1.00	34.42	H	C
ATOM	1807	OG	SER	H	21	-15.449	10.839	18.008	1.00	46.92	H	O
ATOM	1808	N	CYS	H	22	-13.846	11.997	14.988	1.00	37.06	H	N
ATOM	1809	CA	CYS	H	22	-13.155	13.242	14.739	1.00	38.14	H	C
ATOM	1810	C	CYS	H	22	-14.158	14.285	14.346	1.00	31.54	H	C
ATOM	1811	O	CYS	H	22	-14.810	14.172	13.318	1.00	30.64	H	O
ATOM	1812	CB	CYS	H	22	-12.135	13.057	13.612	1.00	43.73	H	C
ATOM	1813	SG	CYS	H	22	-11.198	14.513	13.004	1.00	55.55	H	S
ATOM	1814	N	ALA	H	23	-14.284	15.298	15.190	1.00	32.03	H	N
ATOM	1815	CA	ALA	H	23	-15.187	16.402	14.926	1.00	31.56	H	C
ATOM	1816	C	ALA	H	23	-14.445	17.364	14.002	1.00	39.56	H	C
ATOM	1817	O	ALA	H	23	-13.378	17.893	14.348	1.00	37.69	H	O
ATOM	1818	CB	ALA	H	23	-15.552	17.089	16.220	1.00	38.17	H	C
ATOM	1819	N	ALA	H	24	-14.992	17.572	12.814	1.00	36.81	H	N
ATOM	1820	CA	ALA	H	24	-14.362	18.465	11.867	1.00	31.76	H	C
ATOM	1821	C	ALA	H	24	-15.091	19.800	11.857	1.00	34.30	H	C
ATOM	1822	O	ALA	H	24	-16.200	19.910	12.368	1.00	42.66	H	O
ATOM	1823	CB	ALA	H	24	-14.379	17.836	10.481	1.00	29.25	H	C
ATOM	1824	N	SER	H	25	-14.456	20.811	11.275	1.00	45.22	H	N
ATOM	1825	CA	SER	H	25	-15.040	22.146	11.173	1.00	45.48	H	C
ATOM	1826	C	SER	H	25	-14.022	23.142	10.638	1.00	45.04	H	C

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ATOM   1827  O   SER H  25     -12.823  22.995  10.862  1.00 48.34      H    O
ATOM   1828  CB  SER H  25     -15.509  22.637  12.535  1.00 45.05      H    C
ATOM   1829  OG  SER H  25     -14.401  22.994  13.327  1.00 38.97      H    O
ATOM   1830  N   GLY H  26     -14.510  24.163   9.943  1.00 43.04      H    N
ATOM   1831  CA  GLY H  26     -13.627  25.181   9.417  1.00 36.80      H    C
ATOM   1832  C   GLY H  26     -13.361  24.980   7.951  1.00 38.49      H    C
ATOM   1833  O   GLY H  26     -12.549  25.684   7.362  1.00 52.85      H    O
ATOM   1834  N   PHE H  27     -14.035  24.007   7.356  1.00 37.93      H    N
ATOM   1835  CA  PHE H  27     -13.856  23.745   5.946  1.00 34.05      H    C
ATOM   1836  C   PHE H  27     -15.015  22.930   5.427  1.00 36.91      H    C
ATOM   1837  O   PHE H  27     -15.759  22.343   6.206  1.00 39.00      H    O
ATOM   1838  CB  PHE H  27     -12.522  23.017   5.670  1.00 33.34      H    C
ATOM   1839  CG  PHE H  27     -12.394  21.675   6.329  1.00 17.41      H    C
ATOM   1840  CD1 PHE H  27     -12.133  21.570   7.691  1.00 25.29      H    C
ATOM   1841  CD2 PHE H  27     -12.547  20.512   5.586  1.00 15.22      H    C
ATOM   1842  CE1 PHE H  27     -12.030  20.319   8.304  1.00 21.74      H    C
ATOM   1843  CE2 PHE H  27     -12.447  19.265   6.188  1.00  8.67      H    C
ATOM   1844  CZ  PHE H  27     -12.188  19.167   7.547  1.00 16.97      H    C
ATOM   1845  N   THR H  28     -15.168  22.907   4.108  1.00 38.20      H    N
ATOM   1846  CA  THR H  28     -16.238  22.176   3.457  1.00 35.35      H    C
ATOM   1847  C   THR H  28     -15.956  20.675   3.520  1.00 35.62      H    C
ATOM   1848  O   THR H  28     -15.657  20.042   2.510  1.00 41.35      H    O
ATOM   1849  CB  THR H  28     -16.349  22.645   2.007  1.00 37.46      H    C
ATOM   1850  OG1 THR H  28     -16.428  24.074   1.989  1.00 41.29      H    O
ATOM   1851  CG2 THR H  28     -17.575  22.066   1.340  1.00 44.03      H    C
ATOM   1852  N   PHE H  29     -16.063  20.130   4.728  1.00 34.25      H    N
ATOM   1853  CA  PHE H  29     -15.818  18.721   5.042  1.00 34.22      H    C
ATOM   1854  C   PHE H  29     -16.163  17.674   3.979  1.00 34.25      H    C
ATOM   1855  O   PHE H  29     -15.391  16.755   3.730  1.00 47.37      H    O
ATOM   1856  CB  PHE H  29     -16.530  18.390   6.356  1.00 33.13      H    C
ATOM   1857  CG  PHE H  29     -16.417  16.954   6.771  1.00 30.33      H    C
ATOM   1858  CD1 PHE H  29     -17.427  16.055   6.481  1.00 33.76      H    C
ATOM   1859  CD2 PHE H  29     -15.298  16.505   7.462  1.00 38.72      H    C
ATOM   1860  CE1 PHE H  29     -17.325  14.740   6.872  1.00 41.24      H    C
ATOM   1861  CE2 PHE H  29     -15.189  15.193   7.855  1.00 25.21      H    C
ATOM   1862  CZ  PHE H  29     -16.205  14.307   7.560  1.00 31.25      H    C
ATOM   1863  N   ILE H  30     -17.316  17.813   3.347  1.00 35.57      H    N
ATOM   1864  CA  ILE H  30     -17.752  16.875   2.324  1.00 36.50      H    C
ATOM   1865  C   ILE H  30     -16.860  16.824   1.080  1.00 38.95      H    C
ATOM   1866  O   ILE H  30     -16.809  15.809   0.376  1.00 40.39      H    O
ATOM   1867  CB  ILE H  30     -19.182  17.220   1.867  1.00 36.84      H    C
ATOM   1868  CG1 ILE H  30     -19.637  16.259   0.770  1.00 35.17      H    C
ATOM   1869  CG2 ILE H  30     -19.225  18.663   1.356  1.00 36.84      H    C
ATOM   1870  CD1 ILE H  30     -21.038  16.515   0.308  1.00 43.88      H    C
ATOM   1871  N   SER H  31     -16.153  17.907   0.795  1.00 33.28      H    N
ATOM   1872  CA  SER H  31     -15.332  17.915  -0.403  1.00 37.16      H    C
ATOM   1873  C   SER H  31     -13.914  17.386  -0.236  1.00 38.76      H    C
ATOM   1874  O   SER H  31     -13.159  17.306  -1.208  1.00 39.05      H    O
ATOM   1875  CB  SER H  31     -15.304  19.319  -1.010  1.00 33.72      H    C
ATOM   1876  OG  SER H  31     -16.600  19.717  -1.417  1.00 41.28      H    O
ATOM   1877  N   TYR H  32     -13.570  17.001   0.988  1.00 37.10      H    N
ATOM   1878  CA  TYR H  32     -12.240  16.483   1.273  1.00 35.92      H    C
ATOM   1879  C   TYR H  32     -12.172  14.998   1.621  1.00 35.75      H    C
ATOM   1880  O   TYR H  32     -13.125  14.414   2.126  1.00 35.07      H    O
ATOM   1881  CB  TYR H  32     -11.622  17.265   2.419  1.00 31.81      H    C
ATOM   1882  CG  TYR H  32     -11.220  18.657   2.056  1.00 31.67      H    C
ATOM   1883  CD1 TYR H  32     -10.063  18.895   1.343  1.00 40.11      H    C
ATOM   1884  CD2 TYR H  32     -11.997  19.735   2.418  1.00 27.93      H    C
ATOM   1885  CE1 TYR H  32      -9.692  20.165   0.998  1.00 30.26      H    C
ATOM   1886  CE2 TYR H  32     -11.633  21.001   2.082  1.00 43.25      H    C
ATOM   1887  CZ  TYR H  32     -10.475  21.214   1.368  1.00 39.71      H    C
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ATOM	1888	OH	TYR	H	32	-10.103	22.493	1.026	1.00	65.73	H	O
ATOM	1889	N	ALA	H	33	-11.024	14.399	1.326	1.00	33.25	H	N
ATOM	1890	CA	ALA	H	33	-10.781	13.010	1.657	1.00	35.61	H	C
ATOM	1891	C	ALA	H	33	-10.282	13.125	3.084	1.00	36.27	H	C
ATOM	1892	O	ALA	H	33	-9.672	14.131	3.446	1.00	31.77	H	O
ATOM	1893	CB	ALA	H	33	-9.707	12.433	0.779	1.00	28.41	H	C
ATOM	1894	N	MET	H	34	-10.556	12.116	3.899	1.00	33.27	H	N
ATOM	1895	CA	MET	H	34	-10.120	12.147	5.283	1.00	28.49	H	C
ATOM	1896	C	MET	H	34	-9.231	10.958	5.555	1.00	28.00	H	C
ATOM	1897	O	MET	H	34	-9.373	9.917	4.921	1.00	27.81	H	O
ATOM	1898	CB	MET	H	34	-11.324	12.147	6.226	1.00	31.24	H	C
ATOM	1899	CG	MET	H	34	-12.122	13.436	6.180	1.00	30.32	H	C
ATOM	1900	SD	MET	H	34	-11.099	14.933	6.419	1.00	39.20	H	S
ATOM	1901	CE	MET	H	34	-10.854	14.939	8.175	1.00	17.55	H	C
ATOM	1902	N	SER	H	35	-8.308	11.113	6.497	1.00	28.90	H	N
ATOM	1903	CA	SER	H	35	-7.391	10.035	6.808	1.00	24.89	H	C
ATOM	1904	C	SER	H	35	-7.009	9.890	8.265	1.00	33.44	H	C
ATOM	1905	O	SER	H	35	-7.102	10.828	9.045	1.00	35.02	H	O
ATOM	1906	CB	SER	H	35	-6.118	10.200	5.990	1.00	21.68	H	C
ATOM	1907	OG	SER	H	35	-6.378	10.012	4.612	1.00	32.05	H	O
ATOM	1908	N	TRP	H	36	-6.591	8.686	8.631	1.00	34.43	H	N
ATOM	1909	CA	TRP	H	36	-6.130	8.441	9.980	1.00	31.01	H	C
ATOM	1910	C	TRP	H	36	-4.651	8.041	9.863	1.00	33.80	H	C
ATOM	1911	O	TRP	H	36	-4.286	7.210	9.029	1.00	38.52	H	O
ATOM	1912	CB	TRP	H	36	-6.945	7.324	10.643	1.00	30.03	H	C
ATOM	1913	CG	TRP	H	36	-8.340	7.724	11.080	1.00	24.72	H	C
ATOM	1914	CD1	TRP	H	36	-9.498	7.546	10.386	1.00	25.13	H	C
ATOM	1915	CD2	TRP	H	36	-8.710	8.348	12.319	1.00	27.37	H	C
ATOM	1916	NE1	TRP	H	36	-10.565	8.016	11.112	1.00	29.30	H	N
ATOM	1917	CE2	TRP	H	36	-10.109	8.512	12.303	1.00	25.16	H	C
ATOM	1918	CE3	TRP	H	36	-7.994	8.780	13.443	1.00	32.09	H	C
ATOM	1919	CZ2	TRP	H	36	-10.809	9.089	13.365	1.00	22.18	H	C
ATOM	1920	CZ3	TRP	H	36	-8.687	9.355	14.501	1.00	17.43	H	C
ATOM	1921	CH2	TRP	H	36	-10.081	9.502	14.454	1.00	18.64	H	C
ATOM	1922	N	VAL	H	37	-3.802	8.664	10.670	1.00	28.90	H	N
ATOM	1923	CA	VAL	H	37	-2.369	8.367	10.672	1.00	28.13	H	C
ATOM	1924	C	VAL	H	37	-1.922	8.214	12.115	1.00	27.45	H	C
ATOM	1925	O	VAL	H	37	-2.258	9.032	12.968	1.00	32.69	H	O
ATOM	1926	CB	VAL	H	37	-1.537	9.507	10.052	1.00	23.26	H	C
ATOM	1927	CG1	VAL	H	37	-0.087	9.102	9.998	1.00	29.09	H	C
ATOM	1928	CG2	VAL	H	37	-2.043	9.846	8.670	1.00	31.03	H	C
ATOM	1929	N	ARG	H	38	-1.164	7.178	12.414	1.00	26.98	H	N
ATOM	1930	CA	ARG	H	38	-0.736	7.018	13.796	1.00	31.26	H	C
ATOM	1931	C	ARG	H	38	0.766	7.128	13.979	1.00	34.92	H	C
ATOM	1932	O	ARG	H	38	1.539	7.100	13.011	1.00	36.42	H	O
ATOM	1933	CB	ARG	H	38	-1.218	5.685	14.357	1.00	30.82	H	C
ATOM	1934	CG	ARG	H	38	-0.548	4.505	13.732	1.00	32.29	H	C
ATOM	1935	CD	ARG	H	38	-1.297	3.253	14.078	1.00	31.61	H	C
ATOM	1936	NE	ARG	H	38	-0.684	2.082	13.471	1.00	45.30	H	N
ATOM	1937	CZ	ARG	H	38	-1.174	0.855	13.568	1.00	49.14	H	C
ATOM	1938	NH1	ARG	H	38	-2.288	0.648	14.256	1.00	44.29	H	N
ATOM	1939	NH2	ARG	H	38	-0.556	-0.155	12.971	1.00	39.29	H	N
ATOM	1940	N	GLN	H	39	1.161	7.297	15.237	1.00	34.35	H	N
ATOM	1941	CA	GLN	H	39	2.564	7.394	15.600	1.00	36.21	H	C
ATOM	1942	C	GLN	H	39	2.768	6.396	16.714	1.00	32.94	H	C
ATOM	1943	O	GLN	H	39	2.097	6.442	17.739	1.00	36.86	H	O
ATOM	1944	CB	GLN	H	39	2.902	8.804	16.073	1.00	35.48	H	C
ATOM	1945	CG	GLN	H	39	4.375	9.038	16.273	1.00	40.46	H	C
ATOM	1946	CD	GLN	H	39	4.718	10.507	16.381	1.00	30.97	H	C
ATOM	1947	OE1	GLN	H	39	4.023	11.276	17.039	1.00	46.87	H	O
ATOM	1948	NE2	GLN	H	39	5.798	10.903	15.742	1.00	39.13	H	N

	ATOM	1949	N	THR	H	40	3.681	5.468	16.498	1.00	32.21	H N
	ATOM	1950	CA	THR	H	40	3.951	4.444	17.485	1.00	26.95	H C
	ATOM	1951	C	THR	H	40	4.794	5.034	18.596	1.00	36.27	H C
	ATOM	1952	O	THR	H	40	5.338	6.131	18.466	1.00	33.90	H O
5	ATOM	1953	CB	THR	H	40	4.707	3.278	16.860	1.00	25.60	H C
	ATOM	1954	OG1	THR	H	40	6.056	3.676	16.592	1.00	30.95	H O
	ATOM	1955	CG2	THR	H	40	4.049	2.867	15.552	1.00	19.81	H C
	ATOM	1956	N	PRO	H	41	4.891	4.319	19.721	1.00	43.34	H N
	ATOM	1957	CA	PRO	H	41	5.674	4.853	20.826	1.00	42.33	H C
10	ATOM	1958	C	PRO	H	41	7.119	5.054	20.383	1.00	40.47	H C
	ATOM	1959	O	PRO	H	41	7.882	5.837	20.938	1.00	46.17	H O
	ATOM	1960	CB	PRO	H	41	5.609	3.858	21.983	1.00	46.00	H C
	ATOM	1961	CG	PRO	H	41	4.463	2.890	21.713	1.00	44.54	H C
	ATOM	1962	CD	PRO	H	41	4.124	3.171	20.174	1.00	37.36	H C
15	ATOM	1963	N	GLU	H	42	7.491	4.257	19.367	1.00	39.84	H N
	ATOM	1964	CA	GLU	H	42	8.779	4.449	18.727	1.00	39.67	H C
	ATOM	1965	C	GLU	H	42	8.724	5.653	17.788	1.00	39.72	H C
	ATOM	1966	O	GLU	H	42	9.627	5.927	17.009	1.00	38.24	H O
	ATOM	1967	CB	GLU	H	42	9.119	3.172	17.953	1.00	43.69	H C
20	ATOM	1968	CG	GLU	H	42	9.167	1.932	18.853	1.00	59.11	H C
	ATOM	1969	CD	GLU	H	42	7.786	1.324	18.945	1.00	78.32	H C
	ATOM	1970	OE1	GLU	H	42	7.323	0.767	17.959	1.00	71.16	H O
	ATOM	1971	OE2	GLU	H	42	7.189	1.394	20.020	1.00	93.36	H O
	ATOM	1972	N	LYS	H	43	7.571	6.354	17.856	1.00	37.86	H N
25	ATOM	1973	CA	LYS	H	43	7.470	7.658	17.210	1.00	31.78	H C
	ATOM	1974	C	LYS	H	43	7.569	7.568	15.691	1.00	30.82	H C
	ATOM	1975	O	LYS	H	43	7.922	8.523	15.010	1.00	34.06	H O
	ATOM	1976	CB	LYS	H	43	8.596	8.534	17.748	1.00	30.63	H C
	ATOM	1977	CG	LYS	H	43	8.330	8.971	19.189	1.00	45.46	H C
30	ATOM	1978	CD	LYS	H	43	9.247	10.113	19.627	1.00	83.82	H C
	ATOM	1979	CE	LYS	H	43	10.474	9.615	20.395	1.00	96.13	H C
	ATOM	1980	NZ	LYS	H	43	10.052	9.064	21.680	1.00	87.58	H N
	ATOM	1981	N	ARG	H	44	7.156	6.442	15.122	1.00	29.41	H N
	ATOM	1982	CA	ARG	H	44	7.087	6.323	13.668	1.00	29.46	H C
35	ATOM	1983	C	ARG	H	44	5.640	6.520	13.204	1.00	33.48	H C
	ATOM	1984	O	ARG	H	44	4.710	5.953	13.787	1.00	37.98	H O
	ATOM	1985	CB	ARG	H	44	7.574	4.951	13.197	1.00	31.50	H C
	ATOM	1986	CG	ARG	H	44	9.044	4.701	13.379	1.00	35.58	H C
	ATOM	1987	CD	ARG	H	44	9.456	3.351	12.802	1.00	56.91	H C
40	ATOM	1988	NE	ARG	H	44	9.904	3.439	11.412	1.00	71.87	H N
	ATOM	1989	CZ	ARG	H	44	10.966	4.139	11.007	1.00	70.52	H C
	ATOM	1990	NH1	ARG	H	44	11.989	4.322	11.832	1.00	72.59	H N
	ATOM	1991	NH2	ARG	H	44	10.995	4.672	9.785	1.00	65.12	H N
	ATOM	1992	N	LEU	H	45	5.457	7.315	12.150	1.00	30.81	H N
45	ATOM	1993	CA	LEU	H	45	4.131	7.577	11.597	1.00	23.62	H C
	ATOM	1994	C	LEU	H	45	3.688	6.488	10.611	1.00	28.24	H C
	ATOM	1995	O	LEU	H	45	4.461	6.058	9.767	1.00	26.20	H O
	ATOM	1996	CB	LEU	H	45	4.131	8.938	10.898	1.00	18.00	H C
	ATOM	1997	CG	LEU	H	45	4.392	10.152	11.794	1.00	19.88	H C
50	ATOM	1998	CD1	LEU	H	45	4.867	11.310	10.938	1.00	24.54	H C
	ATOM	1999	CD2	LEU	H	45	3.131	10.522	12.590	1.00	14.97	H C
	ATOM	2000	N	GLU	H	46	2.445	6.038	10.725	1.00	28.38	H N
	ATOM	2001	CA	GLU	H	46	1.924	5.022	9.818	1.00	26.32	H C
	ATOM	2002	C	GLU	H	46	0.508	5.374	9.344	1.00	26.58	H C
55	ATOM	2003	O	GLU	H	46	-0.411	5.473	10.152	1.00	33.14	H O
	ATOM	2004	CB	GLU	H	46	1.874	3.638	10.496	1.00	35.21	H C
	ATOM	2005	CG	GLU	H	46	2.847	3.393	11.668	1.00	49.18	H C
	ATOM	2006	CD	GLU	H	46	2.785	1.943	12.231	1.00	64.81	H C
	ATOM	2007	OE1	GLU	H	46	1.691	1.473	12.630	1.00	67.38	H O
60	ATOM	2008	OE2	GLU	H	46	3.844	1.269	12.280	1.00	52.21	H O
	ATOM	2009	N	TRP	H	47	0.327	5.577	8.045	1.00	30.57	H N

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ATOM   2010  CA  TRP H  47      -1.012   5.751   7.500  1.00 25.48      H    C
ATOM   2011  C   TRP H  47      -1.886   4.524   7.770  1.00 30.87      H    C
ATOM   2012  O   TRP H  47      -1.548   3.393   7.443  1.00 32.26      H    O
ATOM   2013  CB  TRP H  47      -0.885   5.991   5.996  1.00 25.25      H    C
ATOM   2014  CG  TRP H  47      -2.202   5.841   5.341  1.00 23.75      H    C
ATOM   2015  CD1 TRP H  47      -3.297   6.729   5.426  1.00 36.84      H    C
ATOM   2016  CD2 TRP H  47      -2.617   4.754   4.481  1.00 23.08      H    C
ATOM   2017  NE1 TRP H  47      -4.364   6.308   4.697  1.00 39.41      H    N
ATOM   2018  CE2 TRP H  47      -3.948   5.025   4.078  1.00 27.40      H    C
ATOM   2019  CE3 TRP H  47      -1.989   3.594   4.036  1.00 23.52      H    C
ATOM   2020  CZ2 TRP H  47      -4.609   4.142   3.240  1.00 16.46      H    C
ATOM   2021  CZ3 TRP H  47      -2.651   2.710   3.200  1.00 22.42      H    C
ATOM   2022  CH2 TRP H  47      -3.972   2.986   2.803  1.00 27.75      H    C
ATOM   2023  N   VAL H  48      -3.034   4.778   8.426  1.00 35.93      H    N
ATOM   2024  CA  VAL H  48      -3.887   3.671   8.844  1.00 32.96      H    C
ATOM   2025  C   VAL H  48      -5.099   3.492   7.925  1.00 31.29      H    C
ATOM   2026  O   VAL H  48      -5.503   2.386   7.586  1.00 34.83      H    O
ATOM   2027  CB  VAL H  48      -4.355   3.947  10.273  1.00 31.31      H    C
ATOM   2028  CG1 VAL H  48      -5.379   2.896  10.698  1.00 45.32      H    C
ATOM   2029  CG2 VAL H  48      -3.171   3.907  11.221  1.00 40.07      H    C
ATOM   2030  N   ALA H  49      -5.715   4.632   7.555  1.00 32.57      H    N
ATOM   2031  CA  ALA H  49      -6.900   4.560   6.706  1.00 30.97      H    C
ATOM   2032  C   ALA H  49      -7.176   5.889   5.996  1.00 31.41      H    C
ATOM   2033  O   ALA H  49      -6.710   6.947   6.399  1.00 35.89      H    O
ATOM   2034  CB  ALA H  49      -8.093   4.181   7.585  1.00 27.71      H    C
ATOM   2035  N   SER H  50      -7.942   5.801   4.915  1.00 28.70      H    N
ATOM   2036  CA  SER H  50      -8.289   6.962   4.113  1.00 31.27      H    C
ATOM   2037  C   SER H  50      -9.629   6.737   3.442  1.00 33.01      H    C
ATOM   2038  O   SER H  50      -9.863   5.703   2.820  1.00 33.77      H    O
ATOM   2039  CB  SER H  50      -7.229   7.220   3.036  1.00 29.77      H    C
ATOM   2040  OG  SER H  50      -6.021   7.678   3.604  1.00 36.87      H    O
ATOM   2041  N   ILE H  51     -10.508   7.717   3.575  1.00 31.73      H    N
ATOM   2042  CA  ILE H  51     -11.828   7.646   2.978  1.00 30.25      H    C
ATOM   2043  C   ILE H  51     -11.958   8.838   2.032  1.00 33.02      H    C
ATOM   2044  O   ILE H  51     -11.591   9.966   2.380  1.00 35.69      H    O
ATOM   2045  CB  ILE H  51     -12.919   7.695   4.079  1.00 29.54      H    C
ATOM   2046  CG1 ILE H  51     -14.287   7.379   3.479  1.00 26.92      H    C
ATOM   2047  CG2 ILE H  51     -12.925   9.051   4.754  1.00 23.38      H    C
ATOM   2048  CD1 ILE H  51     -15.356   7.192   4.510  1.00 38.16      H    C
ATOM   2049  N   SER H  52     -12.450   8.600   0.828  1.00 32.29      H    N
ATOM   2050  CA  SER H  52     -12.533   9.725  -0.096  1.00 37.72      H    C
ATOM   2051  C   SER H  52     -13.920  10.368  -0.060  1.00 40.73      H    C
ATOM   2052  O   SER H  52     -14.793   9.998   0.712  1.00 35.28      H    O
ATOM   2053  CB  SER H  52     -12.218   9.216  -1.504  1.00 41.62      H    C
ATOM   2054  OG  SER H  52     -13.410   8.701  -2.095  1.00 45.13      H    O
ATOM   2055  N   SER H  53     -14.093  11.396  -0.908  1.00 47.25      H    N
ATOM   2056  CA  SER H  53     -15.357  12.121  -0.908  1.00 50.61      H    C
ATOM   2057  C   SER H  53     -16.543  11.198  -1.204  1.00 49.75      H    C
ATOM   2058  O   SER H  53     -17.655  11.384  -0.725  1.00 53.91      H    O
ATOM   2059  CB  SER H  53     -15.271  13.217  -1.969  1.00 52.83      H    C
ATOM   2060  OG  SER H  53     -14.297  14.184  -1.575  1.00 58.40      H    O
ATOM   2061  N   GLY H  54     -16.279  10.189  -2.056  1.00 45.24      H    N
ATOM   2062  CA  GLY H  54     -17.355   9.296  -2.474  1.00 53.16      H    C
ATOM   2063  C   GLY H  54     -17.537   8.118  -1.512  1.00 55.63      H    C
ATOM   2064  O   GLY H  54     -18.380   7.250  -1.697  1.00 61.25      H    O
ATOM   2065  N   GLY H  55     -16.673   8.082  -0.479  1.00 53.22      H    N
ATOM   2066  CA  GLY H  55     -16.775   7.009   0.505  1.00 54.51      H    C
ATOM   2067  C   GLY H  55     -16.009   5.760   0.062  1.00 55.03      H    C
ATOM   2068  O   GLY H  55     -16.062   4.710   0.688  1.00 63.61      H    O
ATOM   2069  N   ASN H  56     -15.076   5.866  -0.905  1.00 50.20      H    N
ATOM   2070  CA  ASN H  56     -14.132   4.775  -1.117  1.00 53.18      H    C
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ATOM   2071  C   ASN H  56     -13.066   4.733  -0.020  1.00 51.97      H    C
ATOM   2072  O   ASN H  56     -12.441   5.729   0.321  1.00 52.37      H    O
ATOM   2073  CB  ASN H  56     -13.471   4.973  -2.482  1.00 61.77      H    C
ATOM   2074  CG  ASN H  56     -14.484   4.728  -3.571  1.00 70.16      H    C
ATOM   2075  OD1 ASN H  56     -14.773   5.591  -4.395  1.00 79.19      H    O
ATOM   2076  ND2 ASN H  56     -15.032   3.501  -3.570  1.00 83.81      H    N
ATOM   2077  N   THR H  57     -12.896   3.534   0.568  1.00 48.61      H    N
ATOM   2078  CA  THR H  57     -11.950   3.401   1.670  1.00 40.92      H    C
ATOM   2079  C   THR H  57     -10.671   2.672   1.248  1.00 38.31      H    C
ATOM   2080  O   THR H  57     -10.627   1.959   0.254  1.00 40.67      H    O
ATOM   2081  CB  THR H  57     -12.638   2.631   2.801  1.00 40.83      H    C
ATOM   2082  OG1 THR H  57     -13.012   1.335   2.329  1.00 42.11      H    O
ATOM   2083  CG2 THR H  57     -13.899   3.379   3.251  1.00 23.85      H    C
ATOM   2084  N   TYR H  58      -9.590   2.906   1.978  1.00 40.21      H    N
ATOM   2085  CA  TYR H  58      -8.307   2.302   1.653  1.00 38.47      H    C
ATOM   2086  C   TYR H  58      -7.600   2.013   2.962  1.00 37.26      H    C
ATOM   2087  O   TYR H  58      -7.653   2.816   3.888  1.00 39.78      H    O
ATOM   2088  CB  TYR H  58      -7.448   3.246   0.803  1.00 37.94      H    C
ATOM   2089  CG  TYR H  58      -8.165   3.856  -0.374  1.00 45.00      H    C
ATOM   2090  CD1 TYR H  58      -9.022   4.937  -0.200  1.00 38.69      H    C
ATOM   2091  CD2 TYR H  58      -7.996   3.350  -1.661  1.00 42.28      H    C
ATOM   2092  CE1 TYR H  58      -9.688   5.497  -1.265  1.00 48.56      H    C
ATOM   2093  CE2 TYR H  58      -8.664   3.904  -2.737  1.00 45.82      H    C
ATOM   2094  CZ  TYR H  58      -9.510   4.979  -2.531  1.00 50.99      H    C
ATOM   2095  OH  TYR H  58     -10.205   5.537  -3.582  1.00 45.05      H    O
ATOM   2096  N   TYR H  59      -6.923   0.871   3.023  1.00 38.15      H    N
ATOM   2097  CA  TYR H  59      -6.228   0.448   4.229  1.00 36.23      H    C
ATOM   2098  C   TYR H  59      -4.923  -0.272   3.956  1.00 35.97      H    C
ATOM   2099  O   TYR H  59      -4.744  -0.877   2.910  1.00 41.66      H    O
ATOM   2100  CB  TYR H  59      -7.114  -0.521   4.990  1.00 32.92      H    C
ATOM   2101  CG  TYR H  59      -8.483   0.001   5.308  1.00 33.05      H    C
ATOM   2102  CD1 TYR H  59      -8.692   0.811   6.410  1.00 26.16      H    C
ATOM   2103  CD2 TYR H  59      -9.578  -0.351   4.531  1.00 21.88      H    C
ATOM   2104  CE1 TYR H  59      -9.949   1.248   6.738  1.00 28.20      H    C
ATOM   2105  CE2 TYR H  59     -10.839   0.087   4.851  1.00 30.66      H    C
ATOM   2106  CZ  TYR H  59     -11.018   0.883   5.961  1.00 27.82      H    C
ATOM   2107  OH  TYR H  59     -12.274   1.296   6.325  1.00 47.49      H    O
ATOM   2108  N   PRO H  60      -3.983  -0.209   4.901  1.00 42.07      H    N
ATOM   2109  CA  PRO H  60      -2.717  -0.912   4.691  1.00 42.47      H    C
ATOM   2110  C   PRO H  60      -3.021  -2.380   5.039  1.00 42.12      H    C
ATOM   2111  O   PRO H  60      -3.990  -2.667   5.748  1.00 34.35      H    O
ATOM   2112  CB  PRO H  60      -1.787  -0.282   5.728  1.00 37.68      H    C
ATOM   2113  CG  PRO H  60      -2.423   0.998   6.070  1.00 38.55      H    C
ATOM   2114  CD  PRO H  60      -3.881   0.718   6.039  1.00 41.23      H    C
ATOM   2115  N   ASP H  61      -2.213  -3.314   4.556  1.00 46.33      H    N
ATOM   2116  CA  ASP H  61      -2.466  -4.702   4.904  1.00 53.50      H    C
ATOM   2117  C   ASP H  61      -2.319  -4.842   6.415  1.00 52.80      H    C
ATOM   2118  O   ASP H  61      -2.773  -5.818   7.006  1.00 60.24      H    O
ATOM   2119  CB  ASP H  61      -1.467  -5.625   4.219  1.00 56.53      H    C
ATOM   2120  CG  ASP H  61      -1.512  -5.513   2.722  1.00 72.07      H    C
ATOM   2121  OD1 ASP H  61      -2.632  -5.429   2.161  1.00 70.71      H    O
ATOM   2122  OD2 ASP H  61      -0.421  -5.524   2.110  1.00 91.21      H    O
ATOM   2123  N   SER H  62      -1.672  -3.849   7.016  1.00 52.97      H    N
ATOM   2124  CA  SER H  62      -1.359  -3.808   8.438  1.00 48.81      H    C
ATOM   2125  C   SER H  62      -2.619  -3.866   9.309  1.00 49.13      H    C
ATOM   2126  O   SER H  62      -2.612  -4.355  10.431  1.00 48.28      H    O
ATOM   2127  CB  SER H  62      -0.589  -2.516   8.718  1.00 50.55      H    C
ATOM   2128  OG  SER H  62      -0.528  -2.299  10.127  1.00 60.82      H    O
ATOM   2129  N   VAL H  63      -3.723  -3.309   8.770  1.00 45.57      H    N
ATOM   2130  CA  VAL H  63      -4.947  -3.243   9.562  1.00 39.30      H    C
ATOM   2131  C   VAL H  63      -6.183  -3.685   8.770  1.00 37.75      H    C
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	ATOM	2132	O	VAL	H	63	-7.301	-3.711	9.267	1.00	37.52	H	O
	ATOM	2133	CB	VAL	H	63	-5.128	-1.800	10.039	1.00	42.39	H	C
	ATOM	2134	CG1	VAL	H	63	-3.887	-1.349	10.809	1.00	34.90	H	C
	ATOM	2135	CG2	VAL	H	63	-5.337	-0.882	8.849	1.00	31.97	H	C
5	ATOM	2136	N	LYS	H	64	-5.959	-4.004	7.482	1.00	40.88	H	N
	ATOM	2137	CA	LYS	H	64	-7.068	-4.431	6.636	1.00	47.29	H	C
	ATOM	2138	C	LYS	H	64	-7.836	-5.603	7.254	1.00	47.68	H	C
	ATOM	2139	O	LYS	H	64	-7.266	-6.604	7.666	1.00	46.11	H	O
	ATOM	2140	CB	LYS	H	64	-6.501	-4.839	5.275	1.00	49.64	H	C
10	ATOM	2141	CG	LYS	H	64	-7.097	-4.021	4.128	1.00	59.25	H	C
	ATOM	2142	CD	LYS	H	64	-6.884	-4.688	2.768	1.00	71.56	H	C
	ATOM	2143	CE	LYS	H	64	-5.402	-4.805	2.398	1.00	81.53	H	C
	ATOM	2144	NZ	LYS	H	64	-4.916	-3.520	1.899	1.00	49.44	H	N
	ATOM	2145	N	GLY	H	65	-9.165	-5.387	7.295	1.00	47.28	H	N
15	ATOM	2146	CA	GLY	H	65	-10.047	-6.409	7.845	1.00	42.18	H	C
	ATOM	2147	C	GLY	H	65	-10.249	-6.226	9.351	1.00	42.83	H	C
	ATOM	2148	O	GLY	H	65	-11.115	-6.832	9.971	1.00	50.95	H	O
	ATOM	2149	N	ARG	H	66	-9.381	-5.381	9.942	1.00	43.96	H	N
	ATOM	2150	CA	ARG	H	66	-9.459	-5.142	11.380	1.00	44.05	H	C
20	ATOM	2151	C	ARG	H	66	-9.991	-3.739	11.703	1.00	43.62	H	C
	ATOM	2152	O	ARG	H	66	-10.440	-3.458	12.806	1.00	49.65	H	O
	ATOM	2153	CB	ARG	H	66	-8.054	-5.306	11.960	1.00	46.94	H	C
	ATOM	2154	CG	ARG	H	66	-7.998	-6.360	13.065	1.00	35.48	H	C
	ATOM	2155	CD	ARG	H	66	-6.616	-7.012	13.160	1.00	36.46	H	C
25	ATOM	2156	NE	ARG	H	66	-5.577	-6.084	12.704	1.00	43.95	H	N
	ATOM	2157	CZ	ARG	H	66	-5.142	-5.162	13.584	1.00	50.13	H	C
	ATOM	2158	NH1	ARG	H	66	-5.650	-5.116	14.802	1.00	43.60	H	N
	ATOM	2159	NH2	ARG	H	66	-4.169	-4.317	13.229	1.00	44.39	H	N
	ATOM	2160	N	PHE	H	67	-9.864	-2.799	10.773	1.00	44.77	H	N
30	ATOM	2161	CA	PHE	H	67	-10.226	-1.396	10.999	1.00	40.21	H	C
	ATOM	2162	C	PHE	H	67	-11.197	-0.910	9.919	1.00	41.98	H	C
	ATOM	2163	O	PHE	H	67	-11.115	-1.327	8.755	1.00	40.85	H	O
	ATOM	2164	CB	PHE	H	67	-8.972	-0.505	10.932	1.00	35.58	H	C
	ATOM	2165	CG	PHE	H	67	-8.052	-0.631	12.101	1.00	34.08	H	C
35	ATOM	2166	CD1	PHE	H	67	-7.966	-1.803	12.826	1.00	46.65	H	C
	ATOM	2167	CD2	PHE	H	67	-7.234	0.428	12.457	1.00	34.35	H	C
	ATOM	2168	CE1	PHE	H	67	-7.074	-1.916	13.890	1.00	47.26	H	C
	ATOM	2169	CE2	PHE	H	67	-6.344	0.327	13.512	1.00	28.12	H	C
	ATOM	2170	CZ	PHE	H	67	-6.263	-0.847	14.231	1.00	36.89	H	C
40	ATOM	2171	N	THR	H	68	-12.103	-0.015	10.294	1.00	36.98	H	N
	ATOM	2172	CA	THR	H	68	-12.990	0.490	9.266	1.00	39.60	H	C
	ATOM	2173	C	THR	H	68	-13.142	1.991	9.400	1.00	37.70	H	C
	ATOM	2174	O	THR	H	68	-13.517	2.515	10.441	1.00	33.56	H	O
	ATOM	2175	CB	THR	H	68	-14.353	-0.178	9.438	1.00	38.69	H	C
45	ATOM	2176	OG1	THR	H	68	-14.194	-1.595	9.356	1.00	38.20	H	O
	ATOM	2177	CG2	THR	H	68	-15.300	0.271	8.319	1.00	40.05	H	C
	ATOM	2178	N	ILE	H	69	-12.783	2.695	8.317	1.00	35.22	H	N
	ATOM	2179	CA	ILE	H	69	-12.986	4.133	8.310	1.00	33.39	H	C
	ATOM	2180	C	ILE	H	69	-14.365	4.494	7.763	1.00	29.12	H	C
50	ATOM	2181	O	ILE	H	69	-14.922	3.843	6.887	1.00	35.88	H	O
	ATOM	2182	CB	ILE	H	69	-11.907	4.772	7.441	1.00	27.05	H	C
	ATOM	2183	CG1	ILE	H	69	-12.088	6.295	7.426	1.00	28.35	H	C
	ATOM	2184	CG2	ILE	H	69	-12.050	4.263	5.996	1.00	39.66	H	C
	ATOM	2185	CD1	ILE	H	69	-10.819	7.041	7.837	1.00	19.70	H	C
55	ATOM	2186	N	SER	H	70	-14.928	5.556	8.356	1.00	30.01	H	N
	ATOM	2187	CA	SER	H	70	-16.200	6.073	7.882	1.00	32.13	H	C
	ATOM	2188	C	SER	H	70	-16.299	7.561	8.199	1.00	36.01	H	C
	ATOM	2189	O	SER	H	70	-15.622	8.076	9.079	1.00	41.38	H	O
	ATOM	2190	CB	SER	H	70	-17.325	5.310	8.588	1.00	25.57	H	C
60	ATOM	2191	OG	SER	H	70	-17.077	5.312	9.995	1.00	41.99	H	O
	ATOM	2192	N	ARG	H	71	-17.245	8.171	7.500	1.00	35.84	H	N

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ATOM   2193  CA  ARG H  71     -17.510   9.585   7.679  1.00 34.27      H    C
ATOM   2194  C   ARG H  71     -18.987   9.900   7.764  1.00 33.22      H    C
ATOM   2195  O   ARG H  71     -19.806   9.240   7.142  1.00 36.66      H    O
ATOM   2196  CB  ARG H  71     -16.894  10.356   6.508  1.00 31.22      H    C
ATOM   2197  CG  ARG H  71     -17.360   9.860   5.147  1.00 24.64      H    C
ATOM   2198  CD  ARG H  71     -16.570  10.499   4.049  1.00 24.11      H    C
ATOM   2199  NE  ARG H  71     -16.406  11.925   4.319  1.00 39.13      H    N
ATOM   2200  CZ  ARG H  71     -15.497  12.703   3.739  1.00 13.51      H    C
ATOM   2201  NH1 ARG H  71     -14.654  12.209   2.838  1.00 21.43      H    N
ATOM   2202  NH2 ARG H  71     -15.416  13.972   4.090  1.00 32.61      H    N
ATOM   2203  N   ASP H  72     -19.324  10.907   8.556  1.00 37.54      H    N
ATOM   2204  CA  ASP H  72     -20.700  11.355   8.676  1.00 37.74      H    C
ATOM   2205  C   ASP H  72     -20.669  12.790   8.141  1.00 36.70      H    C
ATOM   2206  O   ASP H  72     -20.260  13.724   8.842  1.00 29.75      H    O
ATOM   2207  CB  ASP H  72     -21.150  11.342  10.129  1.00 41.57      H    C
ATOM   2208  CG  ASP H  72     -22.622  11.677  10.284  1.00 48.19      H    C
ATOM   2209  OD1 ASP H  72     -23.145  12.522   9.518  1.00 49.97      H    O
ATOM   2210  OD2 ASP H  72     -23.257  11.103  11.194  1.00 56.29      H    O
ATOM   2211  N   ASN H  73     -21.077  12.950   6.884  1.00 36.00      H    N
ATOM   2212  CA  ASN H  73     -21.075  14.252   6.237  1.00 34.23      H    C
ATOM   2213  C   ASN H  73     -22.025  15.261   6.837  1.00 38.06      H    C
ATOM   2214  O   ASN H  73     -21.655  16.419   7.034  1.00 42.98      H    O
ATOM   2215  CB  ASN H  73     -21.341  14.098   4.748  1.00 35.94      H    C
ATOM   2216  CG  ASN H  73     -20.148  13.534   4.017  1.00 28.67      H    C
ATOM   2217  OD1 ASN H  73     -19.034  13.567   4.523  1.00 38.30      H    O
ATOM   2218  ND2 ASN H  73     -20.369  13.027   2.817  1.00 40.69      H    N
ATOM   2219  N   ALA H  74     -23.246  14.837   7.135  1.00 40.21      H    N
ATOM   2220  CA  ALA H  74     -24.205  15.747   7.736  1.00 39.70      H    C
ATOM   2221  C   ALA H  74     -23.633  16.275   9.046  1.00 43.05      H    C
ATOM   2222  O   ALA H  74     -23.592  17.484   9.275  1.00 44.60      H    O
ATOM   2223  CB  ALA H  74     -25.509  15.038   7.988  1.00 42.51      H    C
ATOM   2224  N   ARG H  75     -23.173  15.364   9.900  1.00 43.49      H    N
ATOM   2225  CA  ARG H  75     -22.618  15.759  11.190  1.00 40.90      H    C
ATOM   2226  C   ARG H  75     -21.177  16.231  11.119  1.00 37.75      H    C
ATOM   2227  O   ARG H  75     -20.691  16.835  12.072  1.00 33.26      H    O
ATOM   2228  CB  ARG H  75     -22.701  14.607  12.201  1.00 45.03      H    C
ATOM   2229  CG  ARG H  75     -24.098  14.287  12.709  1.00 61.37      H    C
ATOM   2230  CD  ARG H  75     -24.062  13.295  13.873  1.00 60.10      H    C
ATOM   2231  NE  ARG H  75     -23.498  13.905  15.074  1.00 78.94      H    N
ATOM   2232  CZ  ARG H  75     -23.312  13.272  16.232  1.00 84.66      H    C
ATOM   2233  NH1 ARG H  75     -22.787  13.929  17.268  1.00 58.25      H    N
ATOM   2234  NH2 ARG H  75     -23.647  11.988  16.357  1.00 80.63      H    N
ATOM   2235  N   ASN H  76     -20.504  15.964   9.999  1.00 35.22      H    N
ATOM   2236  CA  ASN H  76     -19.094  16.334   9.829  1.00 33.97      H    C
ATOM   2237  C   ASN H  76     -18.212  15.584  10.823  1.00 36.07      H    C
ATOM   2238  O   ASN H  76     -17.391  16.184  11.516  1.00 35.74      H    O
ATOM   2239  CB  ASN H  76     -18.884  17.834  10.030  1.00 32.35      H    C
ATOM   2240  CG  ASN H  76     -19.332  18.642   8.847  1.00 38.66      H    C
ATOM   2241  OD1 ASN H  76     -18.695  19.630   8.474  1.00 45.80      H    O
ATOM   2242  ND2 ASN H  76     -20.423  18.221   8.231  1.00 48.96      H    N
ATOM   2243  N   ILE H  77     -18.390  14.272  10.898  1.00 36.71      H    N
ATOM   2244  CA  ILE H  77     -17.600  13.476  11.804  1.00 32.46      H    C
ATOM   2245  C   ILE H  77     -16.944  12.340  11.050  1.00 35.64      H    C
ATOM   2246  O   ILE H  77     -17.548  11.725  10.174  1.00 35.33      H    O
ATOM   2247  CB  ILE H  77     -18.464  12.901  12.946  1.00 40.83      H    C
ATOM   2248  CG1 ILE H  77     -19.212  14.038  13.651  1.00 44.32      H    C
ATOM   2249  CG2 ILE H  77     -17.578  12.170  13.962  1.00 40.40      H    C
ATOM   2250  CD1 ILE H  77     -20.069  13.586  14.813  1.00 46.94      H    C
ATOM   2251  N   LEU H  78     -15.692  12.079  11.406  1.00 40.62      H    N
ATOM   2252  CA  LEU H  78     -14.882  11.020  10.806  1.00 37.20      H    C
ATOM   2253  C   LEU H  78     -14.783   9.910  11.854  1.00 36.25      H    C
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ATOM	2254	O	LEU	H	78	-14.611	10.187	13.039	1.00	41.81	H	O
ATOM	2255	CB	LEU	H	78	-13.486	11.575	10.478	1.00	30.31	H	C
ATOM	2256	CG	LEU	H	78	-12.471	10.688	9.765	1.00	14.90	H	C
ATOM	2257	CD1	LEU	H	78	-12.957	10.314	8.404	1.00	28.76	H	C
ATOM	2258	CD2	LEU	H	78	-11.163	11.414	9.673	1.00	31.63	H	C
ATOM	2259	N	TYR	H	79	-14.885	8.658	11.426	1.00	35.10	H	N
ATOM	2260	CA	TYR	H	79	-14.814	7.539	12.364	1.00	29.30	H	C
ATOM	2261	C	TYR	H	79	-13.764	6.504	12.031	1.00	29.91	H	C
ATOM	2262	O	TYR	H	79	-13.455	6.258	10.864	1.00	32.26	H	O
ATOM	2263	CB	TYR	H	79	-16.155	6.803	12.428	1.00	28.95	H	C
ATOM	2264	CG	TYR	H	79	-17.303	7.636	12.910	1.00	37.13	H	C
ATOM	2265	CD1	TYR	H	79	-17.389	8.038	14.236	1.00	19.81	H	C
ATOM	2266	CD2	TYR	H	79	-18.290	8.047	12.030	1.00	36.50	H	C
ATOM	2267	CE1	TYR	H	79	-18.426	8.830	14.668	1.00	44.55	H	C
ATOM	2268	CE2	TYR	H	79	-19.333	8.841	12.453	1.00	35.59	H	C
ATOM	2269	CZ	TYR	H	79	-19.401	9.230	13.769	1.00	40.18	H	C
ATOM	2270	OH	TYR	H	79	-20.456	10.014	14.181	1.00	44.04	H	O
ATOM	2271	N	LEU	H	80	-13.221	5.897	13.076	1.00	32.78	H	N
ATOM	2272	CA	LEU	H	80	-12.272	4.816	12.911	1.00	33.37	H	C
ATOM	2273	C	LEU	H	80	-12.681	3.719	13.889	1.00	39.11	H	C
ATOM	2274	O	LEU	H	80	-12.510	3.861	15.100	1.00	42.27	H	O
ATOM	2275	CB	LEU	H	80	-10.833	5.248	13.202	1.00	27.32	H	C
ATOM	2276	CG	LEU	H	80	-9.905	4.066	12.850	1.00	29.89	H	C
ATOM	2277	CD1	LEU	H	80	-10.141	3.684	11.396	1.00	29.23	H	C
ATOM	2278	CD2	LEU	H	80	-8.445	4.396	13.096	1.00	21.87	H	C
ATOM	2279	N	GLN	H	81	-13.261	2.641	13.368	1.00	37.58	H	N
ATOM	2280	CA	GLN	H	81	-13.588	1.586	14.268	1.00	35.42	H	C
ATOM	2281	C	GLN	H	81	-12.477	0.589	14.176	1.00	35.75	H	C
ATOM	2282	O	GLN	H	81	-11.955	0.295	13.108	1.00	38.97	H	O
ATOM	2283	CB	GLN	H	81	-14.898	0.949	13.804	1.00	32.22	H	C
ATOM	2284	CG	GLN	H	81	-15.181	-0.381	14.504	1.00	46.99	H	C
ATOM	2285	CD	GLN	H	81	-16.017	-0.128	15.737	1.00	63.73	H	C
ATOM	2286	OE1	GLN	H	81	-16.772	0.824	15.842	1.00	73.22	H	O
ATOM	2287	NE2	GLN	H	81	-15.848	-1.048	16.707	1.00	54.60	H	N
ATOM	2288	N	MET	H	82	-12.046	0.146	15.350	1.00	38.89	H	N
ATOM	2289	CA	MET	H	82	-10.916	-0.759	15.462	1.00	38.00	H	C
ATOM	2290	C	MET	H	82	-11.369	-2.034	16.171	1.00	41.10	H	C
ATOM	2291	O	MET	H	82	-12.060	-1.982	17.192	1.00	42.49	H	O
ATOM	2292	CB	MET	H	82	-9.786	-0.079	16.236	1.00	40.92	H	C
ATOM	2293	CG	MET	H	82	-9.219	1.170	15.554	1.00	40.95	H	C
ATOM	2294	SD	MET	H	82	-7.917	1.992	16.522	1.00	43.01	H	S
ATOM	2295	CE	MET	H	82	-8.890	2.540	17.888	1.00	36.86	H	C
ATOM	2296	N	SER	H	82A	-10.994	-3.182	15.621	1.00	39.35	H	N
ATOM	2297	CA	SER	H	82A	-11.395	-4.446	16.214	1.00	42.12	H	C
ATOM	2298	C	SER	H	82A	-10.238	-5.431	16.242	1.00	43.14	H	C
ATOM	2299	O	SER	H	82A	-9.323	-5.335	15.431	1.00	41.79	H	O
ATOM	2300	CB	SER	H	82A	-12.561	-5.052	15.428	1.00	42.50	H	C
ATOM	2301	OG	SER	H	82A	-12.101	-5.716	14.258	1.00	50.18	H	O
ATOM	2302	N	SER	H	82B	-10.293	-6.381	17.173	1.00	40.74	H	N
ATOM	2303	CA	SER	H	82B	-9.247	-7.383	17.304	1.00	45.65	H	C
ATOM	2304	C	SER	H	82B	-7.940	-6.652	17.535	1.00	44.33	H	C
ATOM	2305	O	SER	H	82B	-6.946	-6.935	16.866	1.00	51.78	H	O
ATOM	2306	CB	SER	H	82B	-9.129	-8.213	16.018	1.00	44.47	H	C
ATOM	2307	OG	SER	H	82B	-10.320	-8.914	15.721	1.00	53.60	H	O
ATOM	2308	N	LEU	H	82C	-7.934	-5.717	18.480	1.00	40.37	H	N
ATOM	2309	CA	LEU	H	82C	-6.730	-4.932	18.739	1.00	44.23	H	C
ATOM	2310	C	LEU	H	82C	-5.498	-5.720	19.171	1.00	42.91	H	C
ATOM	2311	O	LEU	H	82C	-5.581	-6.625	19.992	1.00	48.40	H	O
ATOM	2312	CB	LEU	H	82C	-7.032	-3.824	19.756	1.00	47.83	H	C
ATOM	2313	CG	LEU	H	82C	-7.982	-2.753	19.194	1.00	48.91	H	C
ATOM	2314	CD1	LEU	H	82C	-8.308	-1.699	20.243	1.00	42.50	H	C

	ATOM	2315	CD2	LEU	H	82C	-7.340	-2.116	17.969	1.00	41.96	H C
	ATOM	2316	N	ARG	H	83	-4.354	-5.361	18.590	1.00	40.80	H N
	ATOM	2317	CA	ARG	H	83	-3.055	-5.936	18.895	1.00	36.37	H C
	ATOM	2318	C	ARG	H	83	-2.213	-4.938	19.694	1.00	35.99	H C
5	ATOM	2319	O	ARG	H	83	-2.434	-3.735	19.663	1.00	47.57	H O
	ATOM	2320	CB	ARG	H	83	-2.359	-6.300	17.577	1.00	36.69	H C
	ATOM	2321	CG	ARG	H	83	-3.236	-7.145	16.646	1.00	40.16	H C
	ATOM	2322	CD	ARG	H	83	-2.544	-7.435	15.304	1.00	34.89	H C
	ATOM	2323	NE	ARG	H	83	-3.470	-8.063	14.349	1.00	58.83	H N
10	ATOM	2324	CZ	ARG	H	83	-3.033	-8.224	13.083	1.00	64.19	H C
	ATOM	2325	NH1	ARG	H	83	-1.820	-7.821	12.741	1.00	74.93	H N
	ATOM	2326	NH2	ARG	H	83	-3.825	-8.810	12.177	1.00	64.50	H N
	ATOM	2327	N	SER	H	84	-1.201	-5.519	20.361	1.00	41.54	H N
	ATOM	2328	CA	SER	H	84	-0.376	-4.674	21.201	1.00	46.15	H C
15	ATOM	2329	C	SER	H	84	0.260	-3.585	20.332	1.00	43.60	H C
	ATOM	2330	O	SER	H	84	0.646	-2.511	20.774	1.00	47.14	H O
	ATOM	2331	CB	SER	H	84	0.759	-5.531	21.817	1.00	41.31	H C
	ATOM	2332	OG	SER	H	84	0.202	-6.382	22.817	1.00	61.14	H O
	ATOM	2333	N	GLU	H	85	0.378	-3.916	19.031	1.00	45.78	H N
20	ATOM	2334	CA	GLU	H	85	1.098	-3.027	18.121	1.00	44.02	H C
	ATOM	2335	C	GLU	H	85	0.219	-1.927	17.521	1.00	41.37	H C
	ATOM	2336	O	GLU	H	85	0.678	-1.027	16.823	1.00	47.91	H O
	ATOM	2337	CB	GLU	H	85	1.709	-3.873	17.006	1.00	47.56	H C
	ATOM	2338	CG	GLU	H	85	1.944	-5.318	17.438	1.00	66.27	H C
25	ATOM	2339	CD	GLU	H	85	0.951	-6.200	16.728	1.00	83.88	H C
	ATOM	2340	OE1	GLU	H	85	0.500	-7.173	17.318	1.00	92.64	H O
	ATOM	2341	OE2	GLU	H	85	0.597	-5.873	15.599	1.00	78.20	H O
	ATOM	2342	N	ASP	H	86	-1.099	-2.034	17.767	1.00	34.93	H N
	ATOM	2343	CA	ASP	H	86	-1.967	-0.935	17.373	1.00	35.04	H C
30	ATOM	2344	C	ASP	H	86	-1.996	0.141	18.461	1.00	31.78	H C
	ATOM	2345	O	ASP	H	86	-2.856	1.008	18.516	1.00	39.38	H O
	ATOM	2346	CB	ASP	H	86	-3.369	-1.484	17.111	1.00	31.18	H C
	ATOM	2347	CG	ASP	H	86	-3.287	-2.541	16.020	1.00	48.61	H C
	ATOM	2348	OD1	ASP	H	86	-2.847	-2.199	14.921	1.00	55.82	H O
35	ATOM	2349	OD2	ASP	H	86	-3.632	-3.690	16.283	1.00	59.28	H O
	ATOM	2350	N	THR	H	87	-1.010	0.021	19.375	1.00	28.18	H N
	ATOM	2351	CA	THR	H	87	-0.869	0.995	20.448	1.00	28.98	H C
	ATOM	2352	C	THR	H	87	-0.116	2.236	19.965	1.00	25.03	H C
	ATOM	2353	O	THR	H	87	1.070	2.202	19.660	1.00	29.03	H O
40	ATOM	2354	CB	THR	H	87	-0.080	0.324	21.576	1.00	32.63	H C
	ATOM	2355	OG1	THR	H	87	-0.724	-0.899	21.940	1.00	45.72	H O
	ATOM	2356	CG2	THR	H	87	-0.022	1.242	22.800	1.00	28.87	H C
	ATOM	2357	N	ALA	H	88	-0.856	3.356	19.858	1.00	30.69	H N
	ATOM	2358	CA	ALA	H	88	-0.225	4.581	19.382	1.00	28.18	H C
45	ATOM	2359	C	ALA	H	88	-1.188	5.769	19.418	1.00	27.71	H C
	ATOM	2360	O	ALA	H	88	-2.368	5.636	19.717	1.00	30.07	H O
	ATOM	2361	CB	ALA	H	88	0.252	4.343	17.949	1.00	23.69	H C
	ATOM	2362	N	MET	H	89	-0.652	6.953	19.137	1.00	28.18	H N
	ATOM	2363	CA	MET	H	89	-1.458	8.155	19.096	1.00	25.31	H C
50	ATOM	2364	C	MET	H	89	-2.140	8.117	17.736	1.00	23.34	H C
	ATOM	2365	O	MET	H	89	-1.489	7.900	16.713	1.00	26.05	H O
	ATOM	2366	CB	MET	H	89	-0.571	9.383	19.192	1.00	19.08	H C
	ATOM	2367	CG	MET	H	89	-1.307	10.719	19.128	1.00	28.58	H C
	ATOM	2368	SD	MET	H	89	-2.161	11.144	20.648	1.00	35.92	H S
55	ATOM	2369	CE	MET	H	89	-0.855	11.100	21.797	1.00	23.37	H C
	ATOM	2370	N	TYR	H	90	-3.453	8.295	17.721	1.00	24.81	H N
	ATOM	2371	CA	TYR	H	90	-4.190	8.274	16.464	1.00	28.47	H C
	ATOM	2372	C	TYR	H	90	-4.611	9.683	16.032	1.00	35.61	H C
	ATOM	2373	O	TYR	H	90	-5.294	10.401	16.776	1.00	38.42	H O
60	ATOM	2374	CB	TYR	H	90	-5.408	7.349	16.583	1.00	26.33	H C
	ATOM	2375	CG	TYR	H	90	-5.038	5.894	16.487	1.00	21.83	H C

ATOM	2376	CD1	TYR	H	90	-4.360	5.256	17.523	1.00	21.33	H	C
ATOM	2377	CD2	TYR	H	90	-5.308	5.170	15.337	1.00	23.34	H	C
ATOM	2378	CE1	TYR	H	90	-3.957	3.940	17.416	1.00	13.25	H	C
ATOM	2379	CE2	TYR	H	90	-4.910	3.853	15.215	1.00	32.16	H	C
ATOM	2380	CZ	TYR	H	90	-4.235	3.244	16.256	1.00	32.37	H	C
ATOM	2381	OH	TYR	H	90	-3.826	1.944	16.120	1.00	31.42	H	O
ATOM	2382	N	TYR	H	91	-4.199	10.063	14.821	1.00	29.67	H	N
ATOM	2383	CA	TYR	H	91	-4.482	11.386	14.277	1.00	27.68	H	C
ATOM	2384	C	TYR	H	91	-5.437	11.423	13.105	1.00	30.61	H	C
ATOM	2385	O	TYR	H	91	-5.311	10.607	12.193	1.00	30.06	H	O
ATOM	2386	CB	TYR	H	91	-3.190	12.026	13.781	1.00	25.82	H	C
ATOM	2387	CG	TYR	H	91	-2.193	12.378	14.848	1.00	36.87	H	C
ATOM	2388	CD1	TYR	H	91	-2.378	13.493	15.653	1.00	30.76	H	C
ATOM	2389	CD2	TYR	H	91	-1.057	11.601	15.049	1.00	24.87	H	C
ATOM	2390	CE1	TYR	H	91	-1.471	13.821	16.616	1.00	21.54	H	C
ATOM	2391	CE2	TYR	H	91	-0.149	11.929	16.011	1.00	20.34	H	C
ATOM	2392	CZ	TYR	H	91	-0.365	13.039	16.790	1.00	19.98	H	C
ATOM	2393	OH	TYR	H	91	0.536	13.375	17.763	1.00	38.12	H	O
ATOM	2394	N	CYS	H	92	-6.396	12.352	13.120	1.00	34.72	H	N
ATOM	2395	CA	CYS	H	92	-7.249	12.514	11.941	1.00	39.10	H	C
ATOM	2396	C	CYS	H	92	-6.598	13.624	11.120	1.00	31.38	H	C
ATOM	2397	O	CYS	H	92	-6.025	14.575	11.661	1.00	25.53	H	O
ATOM	2398	CB	CYS	H	92	-8.737	12.860	12.245	1.00	35.33	H	C
ATOM	2399	SG	CYS	H	92	-9.256	14.091	13.507	1.00	69.15	H	S
ATOM	2400	N	ALA	H	93	-6.644	13.474	9.810	1.00	22.90	H	N
ATOM	2401	CA	ALA	H	93	-6.063	14.464	8.942	1.00	23.14	H	C
ATOM	2402	C	ALA	H	93	-6.899	14.620	7.692	1.00	31.52	H	C
ATOM	2403	O	ALA	H	93	-7.472	13.654	7.178	1.00	37.17	H	O
ATOM	2404	CB	ALA	H	93	-4.640	14.066	8.573	1.00	22.98	H	C
ATOM	2405	N	ARG	H	94	-6.987	15.853	7.214	1.00	31.22	H	N
ATOM	2406	CA	ARG	H	94	-7.718	16.112	5.993	1.00	27.88	H	C
ATOM	2407	C	ARG	H	94	-6.723	15.771	4.885	1.00	30.21	H	C
ATOM	2408	O	ARG	H	94	-5.586	16.244	4.902	1.00	35.06	H	O
ATOM	2409	CB	ARG	H	94	-8.105	17.583	5.924	1.00	26.56	H	C
ATOM	2410	CG	ARG	H	94	-9.146	17.905	4.880	1.00	32.06	H	C
ATOM	2411	CD	ARG	H	94	-9.449	19.387	4.883	1.00	29.07	H	C
ATOM	2412	NE	ARG	H	94	-8.508	20.149	4.068	1.00	43.56	H	N
ATOM	2413	CZ	ARG	H	94	-8.502	21.476	3.986	1.00	30.83	H	C
ATOM	2414	NH1	ARG	H	94	-9.380	22.189	4.671	1.00	32.80	H	N
ATOM	2415	NH2	ARG	H	94	-7.626	22.089	3.208	1.00	26.74	H	N
ATOM	2416	N	LEU	H	95	-7.134	14.922	3.949	1.00	28.97	H	N
ATOM	2417	CA	LEU	H	95	-6.369	14.534	2.771	1.00	29.42	H	C
ATOM	2418	C	LEU	H	95	-6.686	15.429	1.571	1.00	34.07	H	C
ATOM	2419	O	LEU	H	95	-7.687	15.275	0.885	1.00	43.12	H	O
ATOM	2420	CB	LEU	H	95	-6.703	13.077	2.438	1.00	31.81	H	C
ATOM	2421	CG	LEU	H	95	-5.882	12.539	1.263	1.00	17.92	H	C
ATOM	2422	CD1	LEU	H	95	-4.381	12.512	1.564	1.00	33.14	H	C
ATOM	2423	CD2	LEU	H	95	-6.265	11.111	0.872	1.00	43.38	H	C
ATOM	2424	N	ASP	H	96	-5.805	16.423	1.356	1.00	33.38	H	N
ATOM	2425	CA	ASP	H	96	-5.991	17.315	0.218	1.00	26.87	H	C
ATOM	2426	C	ASP	H	96	-5.736	16.588	-1.105	1.00	28.04	H	C
ATOM	2427	O	ASP	H	96	-5.942	17.112	-2.191	1.00	31.10	H	O
ATOM	2428	CB	ASP	H	96	-5.021	18.489	0.367	1.00	20.28	H	C
ATOM	2429	CG	ASP	H	96	-5.550	19.449	1.425	1.00	35.23	H	C
ATOM	2430	OD1	ASP	H	96	-6.142	18.967	2.392	1.00	43.82	H	O
ATOM	2431	OD2	ASP	H	96	-5.368	20.655	1.276	1.00	34.55	H	O
ATOM	2432	N	GLY	H	97	-5.233	15.345	-0.982	1.00	35.21	H	N
ATOM	2433	CA	GLY	H	97	-4.929	14.566	-2.178	1.00	34.98	H	C
ATOM	2434	C	GLY	H	97	-3.509	13.995	-2.126	1.00	36.60	H	C
ATOM	2435	O	GLY	H	97	-2.829	14.030	-1.109	1.00	55.18	H	O
ATOM	2436	N	TYR	H	98	-3.080	13.414	-3.264	1.00	31.33	H	N

ATOM	2437	CA	TYR	H	98	-1.726	12.873	-3.319	1.00	36.60	H	C
ATOM	2438	C	TYR	H	98	-0.732	13.899	-3.869	1.00	38.11	H	C
ATOM	2439	O	TYR	H	98	0.479	13.718	-3.839	1.00	38.31	H	O
ATOM	2440	CB	TYR	H	98	-1.735	11.616	-4.192	1.00	33.71	H	C
ATOM	2441	CG	TYR	H	98	-2.226	11.936	-5.559	1.00	38.48	H	C
ATOM	2442	CD1	TYR	H	98	-1.549	12.869	-6.342	1.00	60.19	H	C
ATOM	2443	CD2	TYR	H	98	-3.278	11.206	-6.116	1.00	58.17	H	C
ATOM	2444	CE1	TYR	H	98	-1.902	13.051	-7.672	1.00	61.07	H	C
ATOM	2445	CE2	TYR	H	98	-3.636	11.395	-7.442	1.00	66.49	H	C
ATOM	2446	CZ	TYR	H	98	-2.954	12.313	-8.218	1.00	62.63	H	C
ATOM	2447	OH	TYR	H	98	-3.289	12.487	-9.547	1.00	51.32	H	O
ATOM	2448	N	TYR	H	99	-1.290	14.993	-4.421	1.00	34.57	H	N
ATOM	2449	CA	TYR	H	99	-0.439	16.056	-4.942	1.00	28.11	H	C
ATOM	2450	C	TYR	H	99	0.077	16.958	-3.819	1.00	30.06	H	C
ATOM	2451	O	TYR	H	99	1.129	17.576	-3.918	1.00	45.17	H	O
ATOM	2452	CB	TYR	H	99	-1.259	16.882	-5.933	1.00	35.30	H	C
ATOM	2453	CG	TYR	H	99	-1.157	16.291	-7.294	1.00	45.25	H	C
ATOM	2454	CD1	TYR	H	99	-2.191	16.474	-8.208	1.00	50.19	H	C
ATOM	2455	CD2	TYR	H	99	-0.026	15.565	-7.666	1.00	67.32	H	C
ATOM	2456	CE1	TYR	H	99	-2.090	15.946	-9.487	1.00	61.69	H	C
ATOM	2457	CE2	TYR	H	99	0.070	15.028	-8.941	1.00	66.78	H	C
ATOM	2458	CZ	TYR	H	99	-0.958	15.211	-9.847	1.00	61.53	H	C
ATOM	2459	OH	TYR	H	99	-0.889	14.648	-11.107	1.00	64.87	H	O
ATOM	2460	N	PHE	H	100	-0.868	16.958	-2.882	1.00	28.36	H	N
ATOM	2461	CA	PHE	H	100	-0.843	17.912	-1.771	1.00	33.08	H	C
ATOM	2462	C	PHE	H	100	-0.564	17.528	-0.313	1.00	32.51	H	C
ATOM	2463	O	PHE	H	100	-0.409	18.414	0.510	1.00	28.93	H	O
ATOM	2464	CB	PHE	H	100	-2.152	18.702	-1.836	1.00	35.07	H	C
ATOM	2465	CG	PHE	H	100	-2.589	19.002	-3.244	1.00	40.19	H	C
ATOM	2466	CD1	PHE	H	100	-1.920	19.958	-4.007	1.00	42.98	H	C
ATOM	2467	CD2	PHE	H	100	-3.604	18.264	-3.841	1.00	32.65	H	C
ATOM	2468	CE1	PHE	H	100	-2.256	20.160	-5.326	1.00	38.55	H	C
ATOM	2469	CE2	PHE	H	100	-3.942	18.464	-5.164	1.00	22.61	H	C
ATOM	2470	CZ	PHE	H	100	-3.272	19.407	-5.906	1.00	34.08	H	C
ATOM	2471	N	GLY	H	100A	-0.513	16.243	0.023	1.00	32.84	H	N
ATOM	2472	CA	GLY	H	100A	-0.246	15.859	1.403	1.00	24.07	H	C
ATOM	2473	C	GLY	H	100A	-1.375	15.977	2.433	1.00	31.86	H	C
ATOM	2474	O	GLY	H	100A	-2.508	16.393	2.147	1.00	31.43	H	O
ATOM	2475	N	PHE	H	100B	-1.062	15.565	3.656	1.00	31.62	H	N
ATOM	2476	CA	PHE	H	100B	-2.009	15.648	4.756	1.00	30.23	H	C
ATOM	2477	C	PHE	H	100B	-1.848	17.067	5.278	1.00	28.52	H	C
ATOM	2478	O	PHE	H	100B	-0.932	17.358	6.045	1.00	32.67	H	O
ATOM	2479	CB	PHE	H	100B	-1.681	14.617	5.845	1.00	35.30	H	C
ATOM	2480	CG	PHE	H	100B	-1.841	13.186	5.394	1.00	37.11	H	C
ATOM	2481	CD1	PHE	H	100B	-0.723	12.391	5.124	1.00	28.90	H	C
ATOM	2482	CD2	PHE	H	100B	-3.104	12.641	5.211	1.00	27.19	H	C
ATOM	2483	CE1	PHE	H	100B	-0.864	11.089	4.682	1.00	29.05	H	C
ATOM	2484	CE2	PHE	H	100B	-3.252	11.329	4.766	1.00	27.20	H	C
ATOM	2485	CZ	PHE	H	100B	-2.136	10.556	4.502	1.00	31.15	H	C
ATOM	2486	N	ALA	H	101	-2.758	17.933	4.833	1.00	27.56	H	N
ATOM	2487	CA	ALA	H	101	-2.760	19.355	5.154	1.00	25.66	H	C
ATOM	2488	C	ALA	H	101	-3.142	19.783	6.570	1.00	25.19	H	C
ATOM	2489	O	ALA	H	101	-2.666	20.790	7.069	1.00	36.47	H	O
ATOM	2490	CB	ALA	H	101	-3.625	20.072	4.150	1.00	29.91	H	C
ATOM	2491	N	TYR	H	102	-4.008	19.038	7.226	1.00	27.89	H	N
ATOM	2492	CA	TYR	H	102	-4.398	19.414	8.574	1.00	25.32	H	C
ATOM	2493	C	TYR	H	102	-4.423	18.174	9.432	1.00	24.39	H	C
ATOM	2494	O	TYR	H	102	-4.814	17.104	8.968	1.00	30.42	H	O
ATOM	2495	CB	TYR	H	102	-5.769	20.098	8.557	1.00	23.33	H	C
ATOM	2496	CG	TYR	H	102	-5.724	21.484	7.938	1.00	32.18	H	C
ATOM	2497	CD1	TYR	H	102	-5.415	22.610	8.716	1.00	28.43	H	C

ATOM	2498	CD2	TYR	H	102	-5.923	21.662	6.565	1.00	26.31	H	C
ATOM	2499	CE1	TYR	H	102	-5.306	23.843	8.158	1.00	10.30	H	C
ATOM	2500	CE2	TYR	H	102	-5.812	22.896	5.995	1.00	16.36	H	C
ATOM	2501	CZ	TYR	H	102	-5.504	23.990	6.794	1.00	34.64	H	C
ATOM	2502	OH	TYR	H	102	-5.400	25.246	6.222	1.00	30.08	H	O
ATOM	2503	N	TRP	H	103	-3.981	18.319	10.675	1.00	24.24	H	N
ATOM	2504	CA	TRP	H	103	-3.950	17.213	11.608	1.00	28.55	H	C
ATOM	2505	C	TRP	H	103	-4.657	17.635	12.888	1.00	30.13	H	C
ATOM	2506	O	TRP	H	103	-4.653	18.811	13.249	1.00	37.40	H	O
ATOM	2507	CB	TRP	H	103	-2.504	16.839	11.947	1.00	28.95	H	C
ATOM	2508	CG	TRP	H	103	-1.662	16.413	10.790	1.00	25.38	H	C
ATOM	2509	CD1	TRP	H	103	-1.428	17.107	9.634	1.00	18.65	H	C
ATOM	2510	CD2	TRP	H	103	-0.956	15.178	10.665	1.00	30.58	H	C
ATOM	2511	NE1	TRP	H	103	-0.630	16.374	8.797	1.00	21.56	H	N
ATOM	2512	CE2	TRP	H	103	-0.330	15.183	9.403	1.00	25.47	H	C
ATOM	2513	CE3	TRP	H	103	-0.796	14.065	11.495	1.00	28.45	H	C
ATOM	2514	CZ2	TRP	H	103	0.436	14.123	8.956	1.00	15.55	H	C
ATOM	2515	CZ3	TRP	H	103	-0.027	13.003	11.044	1.00	24.57	H	C
ATOM	2516	CH2	TRP	H	103	0.574	13.039	9.786	1.00	26.41	H	C
ATOM	2517	N	GLY	H	104	-5.268	16.677	13.573	1.00	30.49	H	N
ATOM	2518	CA	GLY	H	104	-5.920	16.993	14.825	1.00	23.23	H	C
ATOM	2519	C	GLY	H	104	-4.886	16.815	15.917	1.00	24.33	H	C
ATOM	2520	O	GLY	H	104	-3.728	16.546	15.617	1.00	26.49	H	O
ATOM	2521	N	GLN	H	105	-5.304	16.936	17.173	1.00	31.05	H	N
ATOM	2522	CA	GLN	H	105	-4.403	16.809	18.313	1.00	30.94	H	C
ATOM	2523	C	GLN	H	105	-4.074	15.370	18.673	1.00	34.31	H	C
ATOM	2524	O	GLN	H	105	-3.222	15.124	19.524	1.00	41.91	H	O
ATOM	2525	CB	GLN	H	105	-5.011	17.478	19.536	1.00	35.51	H	C
ATOM	2526	CG	GLN	H	105	-6.191	18.384	19.228	1.00	52.15	H	C
ATOM	2527	CD	GLN	H	105	-7.414	18.042	20.070	1.00	68.67	H	C
ATOM	2528	OE1	GLN	H	105	-8.035	18.926	20.681	1.00	61.17	H	O
ATOM	2529	NE2	GLN	H	105	-7.770	16.752	20.105	1.00	55.73	H	N
ATOM	2530	N	GLY	H	106	-4.755	14.420	18.051	1.00	32.59	H	N
ATOM	2531	CA	GLY	H	106	-4.490	13.026	18.354	1.00	28.33	H	C
ATOM	2532	C	GLY	H	106	-5.137	12.508	19.633	1.00	28.80	H	C
ATOM	2533	O	GLY	H	106	-5.420	13.258	20.567	1.00	30.10	H	O
ATOM	2534	N	THR	H	107	-5.384	11.209	19.668	1.00	29.41	H	N
ATOM	2535	CA	THR	H	107	-6.034	10.448	20.736	1.00	33.14	H	C
ATOM	2536	C	THR	H	107	-5.319	9.124	21.007	1.00	33.83	H	C
ATOM	2537	O	THR	H	107	-5.018	8.343	20.117	1.00	33.79	H	O
ATOM	2538	CB	THR	H	107	-7.494	10.180	20.360	1.00	30.92	H	C
ATOM	2539	OG1	THR	H	107	-8.205	9.778	21.533	1.00	42.28	H	O
ATOM	2540	CG2	THR	H	107	-7.572	9.043	19.335	1.00	32.35	H	C
ATOM	2541	N	LEU	H	108	-5.026	8.902	22.299	1.00	34.93	H	N
ATOM	2542	CA	LEU	H	108	-4.162	7.789	22.653	1.00	39.45	H	C
ATOM	2543	C	LEU	H	108	-4.918	6.471	22.836	1.00	36.37	H	C
ATOM	2544	O	LEU	H	108	-5.874	6.358	23.592	1.00	40.38	H	O
ATOM	2545	CB	LEU	H	108	-3.419	8.155	23.936	1.00	39.65	H	C
ATOM	2546	CG	LEU	H	108	-1.902	8.119	23.750	1.00	20.00	H	C
ATOM	2547	CD1	LEU	H	108	-1.186	9.177	24.596	1.00	20.00	H	C
ATOM	2548	CD2	LEU	H	108	-1.292	6.767	24.127	1.00	20.00	H	C
ATOM	2549	N	VAL	H	109	-4.448	5.462	22.077	1.00	33.52	H	N
ATOM	2550	CA	VAL	H	109	-4.950	4.107	22.268	1.00	38.50	H	C
ATOM	2551	C	VAL	H	109	-3.831	3.173	22.733	1.00	41.95	H	C
ATOM	2552	O	VAL	H	109	-2.822	2.980	22.068	1.00	45.65	H	O
ATOM	2553	CB	VAL	H	109	-5.504	3.612	20.935	1.00	34.93	H	C
ATOM	2554	CG1	VAL	H	109	-5.974	2.169	21.083	1.00	36.26	H	C
ATOM	2555	CG2	VAL	H	109	-6.670	4.478	20.494	1.00	27.03	H	C
ATOM	2556	N	ALA	H	110	-4.054	2.495	23.856	1.00	41.78	H	N
ATOM	2557	CA	ALA	H	110	-3.117	1.467	24.311	1.00	44.45	H	C
ATOM	2558	C	ALA	H	110	-3.807	0.132	24.542	1.00	42.44	H	C

ATOM	2559	O	ALA	H	110	-4.881	0.069	25.135	1.00	43.07	H	O
ATOM	2560	CB	ALA	H	110	-2.478	1.940	25.620	1.00	44.04	H	C
ATOM	2561	N	VAL	H	111	-3.181	-0.937	24.070	1.00	43.71	H	N
ATOM	2562	CA	VAL	H	111	-3.591	-2.301	24.195	1.00	46.41	H	C
ATOM	2563	C	VAL	H	111	-2.668	-3.122	25.091	1.00	48.72	H	C
ATOM	2564	O	VAL	H	111	-1.552	-3.511	24.737	1.00	51.00	H	O
ATOM	2565	CB	VAL	H	111	-3.684	-2.843	22.793	1.00	46.04	H	C
ATOM	2566	CG1	VAL	H	111	-4.683	-3.970	22.741	1.00	52.67	H	C
ATOM	2567	CG2	VAL	H	111	-4.189	-1.718	21.897	1.00	36.76	H	C
ATOM	2568	N	SER	H	112	-3.189	-3.346	26.316	1.00	53.18	H	N
ATOM	2569	CA	SER	H	112	-3.314	-3.814	27.691	1.00	60.09	H	C
ATOM	2570	C	SER	H	112	-4.756	-4.215	28.024	1.00	63.11	H	C
ATOM	2571	O	SER	H	112	-5.722	-3.626	27.567	1.00	62.24	H	O
ATOM	2572	CB	SER	H	112	-2.838	-2.698	28.621	1.00	59.39	H	C
ATOM	2573	OG	SER	H	112	-1.412	-2.761	28.734	1.00	68.30	H	O
ATOM	2574	N	ALA	H	113	-4.857	-5.297	28.814	1.00	69.58	H	N
ATOM	2575	CA	ALA	H	113	-3.631	-5.952	29.241	1.00	64.05	H	C
ATOM	2576	C	ALA	H	113	-3.050	-5.274	30.476	1.00	66.57	H	C
ATOM	2577	O	ALA	H	113	-1.951	-4.735	30.471	1.00	67.66	H	O
ATOM	2578	CB	ALA	H	113	-2.631	-5.866	28.085	1.00	61.17	H	C
ATOM	2579	N	ALA	H	114	-3.851	-5.290	31.555	1.00	74.52	H	N
ATOM	2580	CA	ALA	H	114	-3.501	-4.512	32.735	1.00	75.18	H	C
ATOM	2581	C	ALA	H	114	-4.589	-3.481	33.031	1.00	73.15	H	C
ATOM	2582	O	ALA	H	114	-5.200	-2.905	32.145	1.00	75.45	H	O
ATOM	2583	CB	ALA	H	114	-2.174	-3.801	32.469	1.00	81.16	H	C
ATOM	2584	N	ALA	H	115	-4.843	-3.279	34.333	1.00	20.00	H	N
ATOM	2585	CA	ALA	H	115	-5.951	-2.416	34.716	1.00	20.00	H	C
ATOM	2586	C	ALA	H	115	-5.508	-0.977	34.986	1.00	20.00	H	C
ATOM	2587	O	ALA	H	115	-4.381	-0.703	35.374	1.00	20.00	H	O
ATOM	2588	CB	ALA	H	115	-6.590	-3.008	35.973	1.00	20.00	H	C
ATOM	2589	N	THR	H	116	-6.447	-0.042	34.728	1.00	48.17	H	N
ATOM	2590	CA	THR	H	116	-6.197	1.360	35.045	1.00	49.91	H	C
ATOM	2591	C	THR	H	116	-5.902	1.553	36.534	1.00	53.54	H	C
ATOM	2592	O	THR	H	116	-6.514	0.955	37.408	1.00	61.76	H	O
ATOM	2593	CB	THR	H	116	-7.435	2.174	34.652	1.00	51.97	H	C
ATOM	2594	OG1	THR	H	116	-8.157	2.541	35.832	1.00	59.75	H	O
ATOM	2595	CG2	THR	H	116	-8.353	1.345	33.753	1.00	67.33	H	C
ATOM	2596	N	THR	H	117	-4.893	2.401	36.803	1.00	55.71	H	N
ATOM	2597	CA	THR	H	117	-4.516	2.673	38.185	1.00	52.96	H	C
ATOM	2598	C	THR	H	117	-4.807	4.128	38.569	1.00	52.33	H	C
ATOM	2599	O	THR	H	117	-4.390	5.068	37.905	1.00	54.24	H	O
ATOM	2600	CB	THR	H	117	-3.019	2.381	38.325	1.00	54.81	H	C
ATOM	2601	OG1	THR	H	117	-2.778	1.015	37.979	1.00	57.21	H	O
ATOM	2602	CG2	THR	H	117	-2.561	2.616	39.771	1.00	68.96	H	C
ATOM	2603	N	PRO	H	118	-5.242	4.836	39.028	1.00	53.98	H	N
ATOM	2604	CA	PRO	H	118	-5.168	6.296	39.166	1.00	50.39	H	C
ATOM	2605	C	PRO	H	118	-3.872	6.738	39.851	1.00	51.76	H	C
ATOM	2606	O	PRO	H	118	-3.247	5.971	40.578	1.00	52.75	H	O
ATOM	2607	CB	PRO	H	118	-6.392	6.611	40.004	1.00	53.07	H	C
ATOM	2608	CG	PRO	H	118	-6.424	5.452	40.935	1.00	53.57	H	C
ATOM	2609	CD	PRO	H	118	-6.187	4.277	40.010	1.00	56.15	H	C
ATOM	2610	N	PRO	H	119	-3.460	7.992	39.634	1.00	50.77	H	N
ATOM	2611	CA	PRO	H	119	-2.234	8.518	40.231	1.00	51.99	H	C
ATOM	2612	C	PRO	H	119	-2.362	9.092	41.640	1.00	57.32	H	C
ATOM	2613	O	PRO	H	119	-3.462	9.238	42.177	1.00	60.85	H	O
ATOM	2614	CB	PRO	H	119	-1.824	9.590	39.237	1.00	47.61	H	C
ATOM	2615	CG	PRO	H	119	-3.141	10.178	38.879	1.00	45.24	H	C
ATOM	2616	CD	PRO	H	119	-3.998	8.943	38.645	1.00	53.33	H	C
ATOM	2617	N	SER	H	120	-1.206	9.410	42.220	1.00	57.59	H	N
ATOM	2618	CA	SER	H	120	-0.984	10.062	43.505	1.00	52.71	H	C
ATOM	2619	C	SER	H	120	-0.150	11.331	43.342	1.00	50.89	H	C

ATOM	2620	O	SER	H	120	0.994	11.313	42.911	1.00	55.25	H	O
ATOM	2621	CB	SER	H	120	-0.264	9.075	44.427	1.00	56.41	H	C
ATOM	2622	OG	SER	H	120	-1.175	8.049	44.829	1.00	63.45	H	O
ATOM	2623	N	VAL	H	121	-0.788	12.470	43.667	1.00	48.38	H	N
ATOM	2624	CA	VAL	H	121	-0.121	13.749	43.460	1.00	45.09	H	C
ATOM	2625	C	VAL	H	121	0.459	14.315	44.758	1.00	47.52	H	C
ATOM	2626	O	VAL	H	121	-0.246	14.717	45.677	1.00	50.74	H	O
ATOM	2627	CB	VAL	H	121	-1.141	14.727	42.872	1.00	42.48	H	C
ATOM	2628	CG1	VAL	H	121	-0.418	15.856	42.140	1.00	41.61	H	C
ATOM	2629	CG2	VAL	H	121	-2.052	14.002	41.898	1.00	38.28	H	C
ATOM	2630	N	TYR	H	122	1.803	14.298	44.822	1.00	48.88	H	N
ATOM	2631	CA	TYR	H	122	2.482	14.867	45.978	1.00	46.62	H	C
ATOM	2632	C	TYR	H	122	3.043	16.256	45.663	1.00	49.87	H	C
ATOM	2633	O	TYR	H	122	3.566	16.512	44.587	1.00	52.32	H	O
ATOM	2634	CB	TYR	H	122	3.622	13.924	46.372	1.00	42.13	H	C
ATOM	2635	CG	TYR	H	122	3.084	12.561	46.632	1.00	39.14	H	C
ATOM	2636	CD1	TYR	H	122	2.084	12.381	47.583	1.00	33.27	H	C
ATOM	2637	CD2	TYR	H	122	3.566	11.462	45.921	1.00	26.44	H	C
ATOM	2638	CE1	TYR	H	122	1.560	11.118	47.816	1.00	39.62	H	C
ATOM	2639	CE2	TYR	H	122	3.049	10.197	46.160	1.00	41.31	H	C
ATOM	2640	CZ	TYR	H	122	2.055	10.022	47.106	1.00	39.35	H	C
ATOM	2641	OH	TYR	H	122	1.547	8.763	47.359	1.00	46.83	H	O
ATOM	2642	N	PRO	H	123	2.944	17.168	46.634	1.00	49.83	H	N
ATOM	2643	CA	PRO	H	123	3.453	18.536	46.513	1.00	48.21	H	C
ATOM	2644	C	PRO	H	123	4.960	18.606	46.720	1.00	50.86	H	C
ATOM	2645	O	PRO	H	123	5.514	17.917	47.581	1.00	55.89	H	O
ATOM	2646	CB	PRO	H	123	2.683	19.271	47.595	1.00	52.97	H	C
ATOM	2647	CG	PRO	H	123	2.564	18.226	48.667	1.00	51.62	H	C
ATOM	2648	CD	PRO	H	123	2.201	16.986	47.893	1.00	43.80	H	C
ATOM	2649	N	LEU	H	124	5.626	19.432	45.923	1.00	49.83	H	N
ATOM	2650	CA	LEU	H	124	7.066	19.575	46.038	1.00	52.27	H	C
ATOM	2651	C	LEU	H	124	7.407	20.984	46.455	1.00	48.73	H	C
ATOM	2652	O	LEU	H	124	7.380	21.915	45.648	1.00	48.20	H	O
ATOM	2653	CB	LEU	H	124	7.767	19.224	44.715	1.00	56.15	H	C
ATOM	2654	CG	LEU	H	124	7.671	17.772	44.212	1.00	53.01	H	C
ATOM	2655	CD1	LEU	H	124	8.332	17.628	42.853	1.00	48.39	H	C
ATOM	2656	CD2	LEU	H	124	8.326	16.840	45.212	1.00	59.89	H	C
ATOM	2657	N	ALA	H	125	7.717	21.118	47.739	1.00	50.01	H	N
ATOM	2658	CA	ALA	H	125	8.080	22.389	48.337	1.00	52.85	H	C
ATOM	2659	C	ALA	H	125	9.551	22.353	48.710	1.00	54.62	H	C
ATOM	2660	O	ALA	H	125	10.094	21.295	49.017	1.00	52.85	H	O
ATOM	2661	CB	ALA	H	125	7.241	22.631	49.580	1.00	58.29	H	C
ATOM	2662	N	PRO	H	126	10.221	23.514	48.676	1.00	53.35	H	N
ATOM	2663	CA	PRO	H	126	11.639	23.574	49.027	1.00	54.53	H	C
ATOM	2664	C	PRO	H	126	11.834	23.154	50.475	1.00	56.27	H	C
ATOM	2665	O	PRO	H	126	10.808	23.018	51.175	1.00	61.53	H	O
ATOM	2666	CB	PRO	H	126	11.985	25.040	48.803	1.00	53.66	H	C
ATOM	2667	CG	PRO	H	126	10.694	25.727	49.091	1.00	60.53	H	C
ATOM	2668	CD	PRO	H	126	9.705	24.858	48.370	1.00	48.22	H	C
ATOM	2669	OXT	PRO	H	126	12.997	22.974	50.894	1.00	62.11	H	O
ATOM	2670	N	THR	H	132	16.845	30.323	49.326	1.00	131.55	H	N
ATOM	2671	CA	THR	H	132	15.835	30.845	48.416	1.00	132.47	H	C
ATOM	2672	C	THR	H	132	16.091	32.322	48.094	1.00	130.65	H	C
ATOM	2673	O	THR	H	132	15.683	33.228	48.815	1.00	132.15	H	O
ATOM	2674	CB	THR	H	132	14.472	30.679	49.089	1.00	132.60	H	C
ATOM	2675	OG1	THR	H	132	14.446	31.461	50.283	1.00	134.97	H	O
ATOM	2676	CG2	THR	H	132	14.250	29.214	49.466	1.00	131.87	H	C
ATOM	2677	N	ASN	H	133	16.828	32.548	46.981	1.00	126.17	H	N
ATOM	2678	CA	ASN	H	133	17.281	33.902	46.666	1.00	123.00	H	C
ATOM	2679	C	ASN	H	133	17.045	34.267	45.195	1.00	118.12	H	C
ATOM	2680	O	ASN	H	133	17.646	33.716	44.283	1.00	118.63	H	O

ATOM	2681	CB	ASN	H	133	18.787	33.958	46.968	1.00	124.75	H	C
ATOM	2682	CG	ASN	H	133	19.063	34.983	48.039	1.00	125.18	H	C
ATOM	2683	OD1	ASN	H	133	18.749	34.801	49.212	1.00	130.25	H	O
ATOM	2684	ND2	ASN	H	133	19.650	36.111	47.602	1.00	119.92	H	N
ATOM	2685	N	SER	H	134	16.086	35.203	44.979	1.00	109.67	H	N
ATOM	2686	CA	SER	H	134	15.901	35.788	43.649	1.00	100.82	H	C
ATOM	2687	C	SER	H	134	14.782	35.123	42.828	1.00	95.38	H	C
ATOM	2688	O	SER	H	134	14.092	35.767	42.048	1.00	96.71	H	O
ATOM	2689	CB	SER	H	134	17.225	35.729	42.888	1.00	102.40	H	C
ATOM	2690	OG	SER	H	134	17.391	36.936	42.142	1.00	92.26	H	O
ATOM	2691	N	MET	H	135	14.681	33.758	42.950	1.00	85.97	H	N
ATOM	2692	CA	MET	H	135	13.640	33.007	42.214	1.00	75.45	H	C
ATOM	2693	C	MET	H	135	13.234	31.737	42.977	1.00	68.66	H	C
ATOM	2694	O	MET	H	135	13.837	31.393	44.037	1.00	67.11	H	O
ATOM	2695	CB	MET	H	135	14.158	32.619	40.827	1.00	78.16	H	C
ATOM	2696	CG	MET	H	135	13.679	33.454	39.620	1.00	87.38	H	C
ATOM	2697	SD	MET	H	135	11.912	33.393	39.425	1.00	112.31	H	S
ATOM	2698	CE	MET	H	135	11.764	33.473	37.638	1.00	95.09	H	C
ATOM	2699	N	VAL	H	136	12.396	30.924	42.576	1.00	66.53	H	N
ATOM	2700	CA	VAL	H	136	11.862	29.787	43.312	1.00	64.38	H	C
ATOM	2701	C	VAL	H	136	11.450	28.655	42.383	1.00	60.86	H	C
ATOM	2702	O	VAL	H	136	10.794	28.881	41.369	1.00	60.52	H	O
ATOM	2703	CB	VAL	H	136	10.649	30.194	44.185	1.00	63.71	H	C
ATOM	2704	CG1	VAL	H	136	10.017	28.972	44.813	1.00	66.52	H	C
ATOM	2705	CG2	VAL	H	136	11.092	31.164	45.262	1.00	70.97	H	C
ATOM	2706	N	THR	H	137	11.817	27.444	42.607	1.00	60.78	H	N
ATOM	2707	CA	THR	H	137	11.265	26.333	41.842	1.00	55.89	H	C
ATOM	2708	C	THR	H	137	10.464	25.399	42.735	1.00	52.85	H	C
ATOM	2709	O	THR	H	137	10.980	24.867	43.714	1.00	51.83	H	O
ATOM	2710	CB	THR	H	137	12.358	25.492	41.165	1.00	54.09	H	C
ATOM	2711	OG1	THR	H	137	12.942	26.229	40.087	1.00	48.58	H	O
ATOM	2712	CG2	THR	H	137	11.772	24.201	40.637	1.00	57.49	H	C
ATOM	2713	N	LEU	H	138	9.195	25.219	42.404	1.00	50.91	H	N
ATOM	2714	CA	LEU	H	138	8.350	24.318	43.162	1.00	51.88	H	C
ATOM	2715	C	LEU	H	138	8.027	23.184	42.220	1.00	49.95	H	C
ATOM	2716	O	LEU	H	138	8.260	23.294	41.012	1.00	53.08	H	O
ATOM	2717	CB	LEU	H	138	7.071	25.016	43.622	1.00	50.53	H	C
ATOM	2718	CG	LEU	H	138	7.313	26.155	44.613	1.00	46.88	H	C
ATOM	2719	CD1	LEU	H	138	5.996	26.848	44.934	1.00	62.88	H	C
ATOM	2720	CD2	LEU	H	138	7.944	25.611	45.870	1.00	75.29	H	C
ATOM	2721	N	GLY	H	139	7.498	22.091	42.753	1.00	47.47	H	N
ATOM	2722	CA	GLY	H	139	7.197	20.974	41.887	1.00	46.51	H	C
ATOM	2723	C	GLY	H	139	5.959	20.195	42.244	1.00	47.53	H	C
ATOM	2724	O	GLY	H	139	5.297	20.467	43.235	1.00	48.18	H	O
ATOM	2725	N	CYS	H	140	5.663	19.205	41.414	1.00	52.13	H	N
ATOM	2726	CA	CYS	H	140	4.503	18.351	41.592	1.00	54.83	H	C
ATOM	2727	C	CYS	H	140	4.940	16.925	41.247	1.00	49.40	H	C
ATOM	2728	O	CYS	H	140	5.633	16.698	40.250	1.00	44.99	H	O
ATOM	2729	CB	CYS	H	140	3.377	18.813	40.655	1.00	57.10	H	C
ATOM	2730	SG	CYS	H	140	1.704	18.276	41.141	1.00	76.47	H	S
ATOM	2731	N	LEU	H	141	4.548	15.969	42.081	1.00	46.30	H	N
ATOM	2732	CA	LEU	H	141	4.910	14.580	41.850	1.00	42.12	H	C
ATOM	2733	C	LEU	H	141	3.646	13.734	41.662	1.00	40.17	H	C
ATOM	2734	O	LEU	H	141	2.882	13.523	42.601	1.00	39.80	H	O
ATOM	2735	CB	LEU	H	141	5.735	14.055	43.031	1.00	46.51	H	C
ATOM	2736	CG	LEU	H	141	6.288	12.631	42.945	1.00	52.01	H	C
ATOM	2737	CD1	LEU	H	141	7.259	12.570	41.784	1.00	55.61	H	C
ATOM	2738	CD2	LEU	H	141	7.002	12.237	44.232	1.00	52.23	H	C
ATOM	2739	N	VAL	H	142	3.440	13.268	40.432	1.00	38.37	H	N
ATOM	2740	CA	VAL	H	142	2.291	12.450	40.068	1.00	37.81	H	C
ATOM	2741	C	VAL	H	142	2.758	10.999	39.994	1.00	43.46	H	C

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ATOM   2742  O   VAL H 142       3.168  10.522  38.935  1.00 44.35      H    O
ATOM   2743  CB  VAL H 142       1.729  12.889  38.695  1.00 37.90      H    C
ATOM   2744  CG1 VAL H 142       0.661  11.913  38.221  1.00 34.13      H    C
ATOM   2745  CG2 VAL H 142       1.149  14.283  38.799  1.00 29.37      H    C
ATOM   2746  N   LYS H 143       2.684  10.292  41.118  1.00 45.16      H    N
ATOM   2747  CA  LYS H 143       3.163   8.920  41.167  1.00 41.48      H    C
ATOM   2748  C   LYS H 143       2.141   7.798  40.999  1.00 46.30      H    C
ATOM   2749  O   LYS H 143       1.027   7.834  41.549  1.00 45.34      H    O
ATOM   2750  CB  LYS H 143       3.939   8.711  42.467  1.00 43.20      H    C
ATOM   2751  CG  LYS H 143       4.963   7.582  42.413  1.00 41.99      H    C
ATOM   2752  CD  LYS H 143       5.743   7.500  43.720  1.00 42.24      H    C
ATOM   2753  CE  LYS H 143       6.993   6.653  43.589  1.00 52.65      H    C
ATOM   2754  NZ  LYS H 143       6.693   5.280  43.090  1.00 67.31      H    N
ATOM   2755  N   GLY H 144       2.549   6.791  40.233  1.00 47.62      H    N
ATOM   2756  CA  GLY H 144       1.704   5.640  39.988  1.00 52.58      H    C
ATOM   2757  C   GLY H 144       0.369   5.882  39.299  1.00 55.82      H    C
ATOM   2758  O   GLY H 144      -0.560   6.422  39.890  1.00 63.65      H    O
ATOM   2759  N   TYR H 145       0.283   5.482  38.037  1.00 52.96      H    N
ATOM   2760  CA  TYR H 145      -0.942   5.599  37.259  1.00 46.96      H    C
ATOM   2761  C   TYR H 145      -0.820   4.849  35.930  1.00 44.52      H    C
ATOM   2762  O   TYR H 145       0.277   4.623  35.418  1.00 43.14      H    O
ATOM   2763  CB  TYR H 145      -1.302   7.062  37.002  1.00 41.24      H    C
ATOM   2764  CG  TYR H 145      -0.336   7.807  36.121  1.00 54.18      H    C
ATOM   2765  CD1 TYR H 145       0.721   8.522  36.670  1.00 52.12      H    C
ATOM   2766  CD2 TYR H 145      -0.501   7.827  34.740  1.00 37.28      H    C
ATOM   2767  CE1 TYR H 145       1.586   9.246  35.871  1.00 48.23      H    C
ATOM   2768  CE2 TYR H 145       0.358   8.543  33.934  1.00 45.82      H    C
ATOM   2769  CZ  TYR H 145       1.399   9.258  34.506  1.00 53.37      H    C
ATOM   2770  OH  TYR H 145       2.232  10.020  33.716  1.00 51.96      H    O
ATOM   2771  N   PHE H 146      -1.963   4.454  35.385  1.00 47.52      H    N
ATOM   2772  CA  PHE H 146      -2.002   3.718  34.133  1.00 40.66      H    C
ATOM   2773  C   PHE H 146      -3.418   3.793  33.579  1.00 38.13      H    C
ATOM   2774  O   PHE H 146      -4.387   3.717  34.324  1.00 37.80      H    O
ATOM   2775  CB  PHE H 146      -1.600   2.266  34.387  1.00 32.65      H    C
ATOM   2776  CG  PHE H 146      -1.391   1.468  33.139  1.00 40.82      H    C
ATOM   2777  CD1 PHE H 146      -2.463   0.908  32.463  1.00 41.99      H    C
ATOM   2778  CD2 PHE H 146      -0.119   1.288  32.625  1.00 38.82      H    C
ATOM   2779  CE1 PHE H 146      -2.266   0.188  31.305  1.00 39.34      H    C
ATOM   2780  CE2 PHE H 146       0.080   0.567  31.460  1.00 32.29      H    C
ATOM   2781  CZ  PHE H 146      -0.995   0.019  30.804  1.00 28.82      H    C
ATOM   2782  N   PRO H 147      -3.554   3.994  32.262  1.00 41.70      H    N
ATOM   2783  CA  PRO H 147      -2.444   4.151  31.325  1.00 39.65      H    C
ATOM   2784  C   PRO H 147      -2.207   5.630  31.123  1.00 41.99      H    C
ATOM   2785  O   PRO H 147      -2.689   6.456  31.898  1.00 39.17      H    O
ATOM   2786  CB  PRO H 147      -2.986   3.507  30.068  1.00 41.33      H    C
ATOM   2787  CG  PRO H 147      -4.403   4.014  30.077  1.00 36.45      H    C
ATOM   2788  CD  PRO H 147      -4.829   3.857  31.530  1.00 45.61      H    C
ATOM   2789  N   GLU H 148      -1.459   5.961  30.080  1.00 40.49      H    N
ATOM   2790  CA  GLU H 148      -1.200   7.352  29.770  1.00 42.77      H    C
ATOM   2791  C   GLU H 148      -2.481   7.814  29.103  1.00 48.73      H    C
ATOM   2792  O   GLU H 148      -3.292   6.993  28.683  1.00 56.82      H    O
ATOM   2793  CB  GLU H 148      -0.021   7.464  28.809  1.00 41.73      H    C
ATOM   2794  CG  GLU H 148       1.342   7.286  29.473  1.00 44.10      H    C
ATOM   2795  CD  GLU H 148       1.914   8.593  30.018  1.00 54.54      H    C
ATOM   2796  OE1 GLU H 148       1.268   9.240  30.872  1.00 49.74      H    O
ATOM   2797  OE2 GLU H 148       3.021   8.977  29.584  1.00 48.09      H    O
ATOM   2798  N   PRO H 149      -2.698   9.131  29.018  1.00 48.93      H    N
ATOM   2799  CA  PRO H 149      -1.771  10.127  29.533  1.00 46.06      H    C
ATOM   2800  C   PRO H 149      -2.349  10.712  30.808  1.00 46.54      H    C
ATOM   2801  O   PRO H 149      -3.262  10.155  31.410  1.00 52.02      H    O
ATOM   2802  CB  PRO H 149      -1.760  11.148  28.424  1.00 47.59      H    C
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ATOM	2803	CG	PRO	H	149	-3.227	11.241	28.133	1.00	35.29	H	C
ATOM	2804	CD	PRO	H	149	-3.673	9.775	28.118	1.00	46.53	H	C
ATOM	2805	N	VAL	H	150	-1.797	11.845	31.199	1.00	46.48	H	N
ATOM	2806	CA	VAL	H	150	-2.239	12.617	32.336	1.00	48.36	H	C
ATOM	2807	C	VAL	H	150	-1.769	13.975	31.976	1.00	51.53	H	C
ATOM	2808	O	VAL	H	150	-0.866	14.111	31.166	1.00	49.48	H	O
ATOM	2809	CB	VAL	H	150	-1.528	12.172	33.638	1.00	46.55	H	C
ATOM	2810	CG1	VAL	H	150	-2.023	10.810	34.129	1.00	52.35	H	C
ATOM	2811	CG2	VAL	H	150	-0.022	12.133	33.442	1.00	45.34	H	C
ATOM	2812	N	THR	H	151	-2.457	14.985	32.493	1.00	53.87	H	N
ATOM	2813	CA	THR	H	151	-2.050	16.343	32.179	1.00	52.79	H	C
ATOM	2814	C	THR	H	151	-1.853	17.094	33.467	1.00	53.87	H	C
ATOM	2815	O	THR	H	151	-2.467	16.801	34.480	1.00	58.71	H	O
ATOM	2816	CB	THR	H	151	-3.167	17.041	31.389	1.00	49.68	H	C
ATOM	2817	OG1	THR	H	151	-4.169	17.497	32.300	1.00	68.43	H	O
ATOM	2818	CG2	THR	H	151	-3.814	16.082	30.390	1.00	50.57	H	C
ATOM	2819	N	VAL	H	152	-0.916	18.052	33.417	1.00	54.84	H	N
ATOM	2820	CA	VAL	H	152	-0.653	18.890	34.576	1.00	52.95	H	C
ATOM	2821	C	VAL	H	152	-0.556	20.338	34.132	1.00	52.63	H	C
ATOM	2822	O	VAL	H	152	0.044	20.670	33.121	1.00	50.48	H	O
ATOM	2823	CB	VAL	H	152	0.672	18.465	35.236	1.00	51.86	H	C
ATOM	2824	CG1	VAL	H	152	0.613	17.013	35.714	1.00	46.34	H	C
ATOM	2825	CG2	VAL	H	152	1.840	18.631	34.275	1.00	53.57	H	C
ATOM	2826	N	THR	H	153	-1.249	21.203	34.887	1.00	53.77	H	N
ATOM	2827	CA	THR	H	153	-1.215	22.630	34.594	1.00	56.85	H	C
ATOM	2828	C	THR	H	153	-0.947	23.377	35.880	1.00	59.60	H	C
ATOM	2829	O	THR	H	153	-1.146	22.862	36.971	1.00	60.71	H	O
ATOM	2830	CB	THR	H	153	-2.589	23.061	34.048	1.00	58.09	H	C
ATOM	2831	OG1	THR	H	153	-3.610	22.721	34.987	1.00	63.79	H	O
ATOM	2832	CG2	THR	H	153	-2.889	22.371	32.711	1.00	53.38	H	C
ATOM	2833	N	TRP	H	154	-0.428	24.607	35.743	1.00	58.56	H	N
ATOM	2834	CA	TRP	H	154	-0.160	25.388	36.943	1.00	59.00	H	C
ATOM	2835	C	TRP	H	154	-1.058	26.617	36.985	1.00	65.51	H	C
ATOM	2836	O	TRP	H	154	-1.090	27.437	36.077	1.00	68.44	H	O
ATOM	2837	CB	TRP	H	154	1.310	25.839	36.936	1.00	58.83	H	C
ATOM	2838	CG	TRP	H	154	2.220	24.700	37.226	1.00	63.23	H	C
ATOM	2839	CD1	TRP	H	154	2.867	23.892	36.276	1.00	63.79	H	C
ATOM	2840	CD2	TRP	H	154	2.606	24.185	38.526	1.00	55.01	H	C
ATOM	2841	NE1	TRP	H	154	3.610	22.909	36.827	1.00	52.78	H	N
ATOM	2842	CE2	TRP	H	154	3.457	23.068	38.283	1.00	53.67	H	C
ATOM	2843	CE3	TRP	H	154	2.315	24.533	39.802	1.00	48.82	H	C
ATOM	2844	CZ2	TRP	H	154	3.988	22.352	39.320	1.00	47.95	H	C
ATOM	2845	CZ3	TRP	H	154	2.848	23.811	40.856	1.00	41.43	H	C
ATOM	2846	CH2	TRP	H	154	3.692	22.703	40.610	1.00	46.15	H	C
ATOM	2847	N	ASN	H	155	-1.843	26.698	38.075	1.00	67.18	H	N
ATOM	2848	CA	ASN	H	155	-2.816	27.773	38.189	1.00	70.56	H	C
ATOM	2849	C	ASN	H	155	-3.788	27.780	37.006	1.00	69.10	H	C
ATOM	2850	O	ASN	H	155	-4.096	28.808	36.419	1.00	71.27	H	O
ATOM	2851	CB	ASN	H	155	-2.065	29.103	38.255	1.00	70.76	H	C
ATOM	2852	CG	ASN	H	155	-1.537	29.314	39.652	1.00	70.08	H	C
ATOM	2853	OD1	ASN	H	155	-2.077	28.814	40.634	1.00	71.53	H	O
ATOM	2854	ND2	ASN	H	155	-0.448	30.098	39.732	1.00	64.39	H	N
ATOM	2855	N	SER	H	156	-4.242	26.570	36.631	1.00	71.92	H	N
ATOM	2856	CA	SER	H	156	-5.245	26.483	35.576	1.00	71.41	H	C
ATOM	2857	C	SER	H	156	-4.670	26.875	34.212	1.00	71.15	H	C
ATOM	2858	O	SER	H	156	-5.371	26.975	33.212	1.00	74.08	H	O
ATOM	2859	CB	SER	H	156	-6.398	27.417	35.949	1.00	74.57	H	C
ATOM	2860	OG	SER	H	156	-6.915	27.040	37.226	1.00	75.73	H	O
ATOM	2861	N	GLY	H	157	-3.349	27.138	34.201	1.00	69.68	H	N
ATOM	2862	CA	GLY	H	157	-2.698	27.495	32.944	1.00	67.44	H	C
ATOM	2863	C	GLY	H	157	-2.203	28.945	32.952	1.00	70.86	H	C

ATOM	2864	O	GLY	H	157	-1.597	29.433	32.006	1.00	67.86	H	O
ATOM	2865	N	SER	H	158	-2.527	29.647	34.058	1.00	74.60	H	N
ATOM	2866	CA	SER	H	158	-2.075	31.029	34.216	1.00	82.23	H	C
ATOM	2867	C	SER	H	158	-0.548	31.120	34.273	1.00	82.78	H	C
ATOM	2868	O	SER	H	158	0.060	32.135	33.958	1.00	85.81	H	O
ATOM	2869	CB	SER	H	158	-2.678	31.578	35.513	1.00	83.01	H	C
ATOM	2870	OG	SER	H	158	-2.040	30.961	36.632	1.00	99.77	H	O
ATOM	2871	N	LEU	H	159	0.069	30.015	34.734	1.00	82.52	H	N
ATOM	2872	CA	LEU	H	159	1.525	29.954	34.677	1.00	82.36	H	C
ATOM	2873	C	LEU	H	159	2.021	29.704	33.252	1.00	86.99	H	C
ATOM	2874	O	LEU	H	159	2.025	28.590	32.747	1.00	79.57	H	O
ATOM	2875	CB	LEU	H	159	1.993	28.822	35.593	1.00	81.28	H	C
ATOM	2876	CG	LEU	H	159	1.795	29.147	37.075	1.00	79.39	H	C
ATOM	2877	CD1	LEU	H	159	2.518	28.155	37.989	1.00	93.68	H	C
ATOM	2878	CD2	LEU	H	159	2.313	30.535	37.455	1.00	62.45	H	C
ATOM	2879	N	SER	H	160	2.414	30.808	32.585	1.00	93.62	H	N
ATOM	2880	CA	SER	H	160	2.816	30.704	31.185	1.00	96.23	H	C
ATOM	2881	C	SER	H	160	3.963	29.706	31.006	1.00	92.96	H	C
ATOM	2882	O	SER	H	160	3.782	28.495	30.993	1.00	88.20	H	O
ATOM	2883	CB	SER	H	160	3.255	32.089	30.707	1.00	102.14	H	C
ATOM	2884	OG	SER	H	160	3.409	32.948	31.837	1.00	98.22	H	O
ATOM	2885	N	SER	H	161	5.176	30.264	30.814	1.00	89.77	H	N
ATOM	2886	CA	SER	H	161	6.356	29.411	30.734	1.00	86.56	H	C
ATOM	2887	C	SER	H	161	7.054	29.317	32.093	1.00	77.91	H	C
ATOM	2888	O	SER	H	161	6.634	29.900	33.083	1.00	71.05	H	O
ATOM	2889	CB	SER	H	161	7.309	30.008	29.700	1.00	92.32	H	C
ATOM	2890	OG	SER	H	161	7.193	29.283	28.475	1.00	99.76	H	O
ATOM	2891	N	GLY	H	162	8.133	28.513	32.130	1.00	69.90	H	N
ATOM	2892	CA	GLY	H	162	8.873	28.369	33.379	1.00	63.56	H	C
ATOM	2893	C	GLY	H	162	8.509	27.071	34.104	1.00	59.46	H	C
ATOM	2894	O	GLY	H	162	9.024	26.747	35.165	1.00	61.58	H	O
ATOM	2895	N	VAL	H	163	7.550	26.337	33.511	1.00	56.46	H	N
ATOM	2896	CA	VAL	H	163	7.159	25.060	34.093	1.00	51.91	H	C
ATOM	2897	C	VAL	H	163	7.695	23.886	33.267	1.00	46.10	H	C
ATOM	2898	O	VAL	H	163	7.597	23.847	32.048	1.00	54.99	H	O
ATOM	2899	CB	VAL	H	163	5.632	25.007	34.142	1.00	56.36	H	C
ATOM	2900	CG1	VAL	H	163	5.049	26.077	33.222	1.00	41.84	H	C
ATOM	2901	CG2	VAL	H	163	5.145	23.641	33.693	1.00	37.01	H	C
ATOM	2902	N	HIS	H	164	8.321	22.926	33.973	1.00	38.73	H	N
ATOM	2903	CA	HIS	H	164	8.861	21.764	33.277	1.00	38.20	H	C
ATOM	2904	C	HIS	H	164	8.049	20.502	33.578	1.00	39.02	H	C
ATOM	2905	O	HIS	H	164	7.976	20.032	34.706	1.00	45.91	H	O
ATOM	2906	CB	HIS	H	164	10.313	21.577	33.717	1.00	47.41	H	C
ATOM	2907	CG	HIS	H	164	11.186	22.595	33.029	1.00	50.39	H	C
ATOM	2908	ND1	HIS	H	164	11.185	22.791	31.687	1.00	44.32	H	N
ATOM	2909	CD2	HIS	H	164	12.121	23.462	33.604	1.00	55.52	H	C
ATOM	2910	CE1	HIS	H	164	12.100	23.754	31.461	1.00	48.81	H	C
ATOM	2911	NE2	HIS	H	164	12.675	24.174	32.590	1.00	54.09	H	N
ATOM	2912	N	THR	H	165	7.370	19.928	32.580	1.00	38.94	H	N
ATOM	2913	CA	THR	H	165	6.670	18.686	32.816	1.00	34.58	H	C
ATOM	2914	C	THR	H	165	7.399	17.560	32.128	1.00	34.70	H	C
ATOM	2915	O	THR	H	165	7.479	17.480	30.909	1.00	36.98	H	O
ATOM	2916	CB	THR	H	165	5.254	18.805	32.243	1.00	29.54	H	C
ATOM	2917	OG1	THR	H	165	4.542	19.815	32.962	1.00	26.80	H	O
ATOM	2918	CG2	THR	H	165	4.511	17.466	32.408	1.00	30.37	H	C
ATOM	2919	N	PHE	H	166	8.006	16.715	32.970	1.00	33.46	H	N
ATOM	2920	CA	PHE	H	166	8.843	15.652	32.438	1.00	30.02	H	C
ATOM	2921	C	PHE	H	166	8.045	14.422	32.045	1.00	34.42	H	C
ATOM	2922	O	PHE	H	166	7.017	14.068	32.608	1.00	40.79	H	O
ATOM	2923	CB	PHE	H	166	9.859	15.259	33.516	1.00	30.92	H	C
ATOM	2924	CG	PHE	H	166	10.715	16.432	33.877	1.00	23.83	H	C

	ATOM	2925	CD1	PHE	H	166	11.915	16.636	33.210	1.00	29.02	H C
	ATOM	2926	CD2	PHE	H	166	10.295	17.316	34.855	1.00	31.79	H C
	ATOM	2927	CE1	PHE	H	166	12.682	17.749	33.512	1.00	31.45	H C
	ATOM	2928	CE2	PHE	H	166	11.072	18.429	35.148	1.00	24.79	H C
5	ATOM	2929	CZ	PHE	H	166	12.266	18.654	34.478	1.00	30.14	H C
	ATOM	2930	N	PRO	H	167	8.539	13.777	31.009	1.00	39.29	H N
	ATOM	2931	CA	PRO	H	167	7.977	12.558	30.445	1.00	42.13	H C
	ATOM	2932	C	PRO	H	167	7.936	11.450	31.506	1.00	47.73	H C
	ATOM	2933	O	PRO	H	167	8.821	11.347	32.335	1.00	56.66	H O
10	ATOM	2934	CB	PRO	H	167	8.910	12.175	29.309	1.00	45.03	H C
	ATOM	2935	CG	PRO	H	167	9.508	13.500	28.826	1.00	46.59	H C
	ATOM	2936	CD	PRO	H	167	9.720	14.174	30.268	1.00	34.51	H C
	ATOM	2937	N	ALA	H	168	6.837	10.656	31.518	1.00	45.33	H N
	ATOM	2938	CA	ALA	H	168	6.700	9.658	32.569	1.00	42.85	H C
15	ATOM	2939	C	ALA	H	168	7.589	8.447	32.291	1.00	42.34	H C
	ATOM	2940	O	ALA	H	168	7.978	8.165	31.165	1.00	39.56	H O
	ATOM	2941	CB	ALA	H	168	5.236	9.220	32.623	1.00	37.42	H C
	ATOM	2942	N	VAL	H	169	7.951	7.746	33.381	1.00	41.75	H N
	ATOM	2943	CA	VAL	H	169	8.708	6.508	33.239	1.00	41.72	H C
20	ATOM	2944	CB	VAL	H	169	9.960	6.609	34.111	1.00	45.04	H C
	ATOM	2945	CG1	VAL	H	169	10.743	5.299	34.055	1.00	58.27	H C
	ATOM	2946	CG2	VAL	H	169	10.845	7.742	33.624	1.00	43.30	H C
	ATOM	2947	O	VAL	H	169	7.107	5.322	34.609	1.00	47.89	H O
	ATOM	2948	N	LEU	H	170	8.029	4.209	32.879	1.00	47.24	H N
25	ATOM	2949	CA	LEU	H	170	7.293	2.994	33.196	1.00	47.57	H C
	ATOM	2950	C	LEU	H	170	8.099	2.072	34.110	1.00	50.54	H C
	ATOM	2951	O	LEU	H	170	9.213	1.663	33.813	1.00	53.71	H O
	ATOM	2952	CB	LEU	H	170	6.966	2.273	31.889	1.00	49.56	H C
	ATOM	2953	CG	LEU	H	170	5.944	1.151	32.084	1.00	43.50	H C
30	ATOM	2954	CD1	LEU	H	170	4.717	1.614	32.875	1.00	47.61	H C
	ATOM	2955	CD2	LEU	H	170	5.417	0.594	30.761	1.00	40.91	H C
	ATOM	2956	N	GLU	H	171	7.509	1.787	35.285	1.00	55.65	H N
	ATOM	2957	CA	GLU	H	171	8.159	0.876	36.217	1.00	68.14	H C
	ATOM	2958	C	GLU	H	171	7.197	-0.226	36.666	1.00	67.74	H C
35	ATOM	2959	O	GLU	H	171	6.098	0.029	37.140	1.00	65.41	H O
	ATOM	2960	CB	GLU	H	171	8.626	1.686	37.428	1.00	72.43	H C
	ATOM	2961	CG	GLU	H	171	9.934	1.159	38.021	1.00	91.59	H C
	ATOM	2962	CD	GLU	H	171	10.146	1.768	39.388	1.00	120.67	H C
	ATOM	2963	OE1	GLU	H	171	11.228	1.613	39.940	1.00	130.29	H O
40	ATOM	2964	OE2	GLU	H	171	9.216	2.391	39.899	1.00	122.92	H O
	ATOM	2965	N	SER	H	172	7.611	-1.486	36.449	1.00	72.50	H N
	ATOM	2966	CA	SER	H	172	6.698	-2.576	36.764	1.00	78.89	H C
	ATOM	2967	C	SER	H	172	5.564	-2.629	35.737	1.00	79.78	H C
	ATOM	2968	O	SER	H	172	5.392	-3.582	34.986	1.00	87.21	H O
45	ATOM	2969	CB	SER	H	172	6.099	-2.293	38.141	1.00	79.72	H C
	ATOM	2970	OG	SER	H	172	4.766	-1.804	37.968	1.00	80.07	H O
	ATOM	2971	N	ASP	H	173	4.739	-1.563	35.781	1.00	74.99	H N
	ATOM	2972	CA	ASP	H	173	3.654	-1.391	34.824	1.00	72.78	H C
	ATOM	2973	C	ASP	H	173	2.866	-0.123	35.157	1.00	65.42	H C
50	ATOM	2974	O	ASP	H	173	1.678	0.008	34.893	1.00	59.35	H O
	ATOM	2975	CB	ASP	H	173	2.748	-2.625	34.859	1.00	81.69	H C
	ATOM	2976	CG	ASP	H	173	2.371	-3.008	33.430	1.00	97.36	H C
	ATOM	2977	OD1	ASP	H	173	2.070	-2.099	32.654	1.00	108.23	H O
	ATOM	2978	OD2	ASP	H	173	2.357	-4.193	33.120	1.00	106.64	H O
55	ATOM	2979	N	LEU	H	174	3.586	0.813	35.796	1.00	63.54	H N
	ATOM	2980	CA	LEU	H	174	2.969	2.059	36.232	1.00	55.65	H C
	ATOM	2981	C	LEU	H	174	3.798	3.286	35.812	1.00	51.40	H C
	ATOM	2982	O	LEU	H	174	5.019	3.255	35.734	1.00	54.33	H O
	ATOM	2983	CB	LEU	H	174	2.819	2.014	37.760	1.00	54.66	H C
60	ATOM	2984	CG	LEU	H	174	1.767	0.993	38.222	1.00	48.08	H C
	ATOM	2985	CD1	LEU	H	174	1.941	0.589	39.689	1.00	53.16	H C

ATOM	2986	CD2	LEU	H	174	0.335	1.512	38.091	1.00	59.23	H	C
ATOM	2987	N	TYR	H	175	3.150	4.419	35.548	1.00	43.17	H	N
ATOM	2988	CA	TYR	H	175	3.870	5.631	35.150	1.00	41.68	H	C
ATOM	2989	C	TYR	H	175	4.025	6.621	36.287	1.00	40.74	H	C
ATOM	2990	O	TYR	H	175	3.233	6.637	37.226	1.00	36.93	H	O
ATOM	2991	CB	TYR	H	175	3.156	6.354	33.997	1.00	47.72	H	C
ATOM	2992	CG	TYR	H	175	3.166	5.631	32.667	1.00	53.98	H	C
ATOM	2993	CD1	TYR	H	175	4.346	5.452	31.955	1.00	51.27	H	C
ATOM	2994	CD2	TYR	H	175	1.992	5.105	32.137	1.00	47.22	H	C
ATOM	2995	CE1	TYR	H	175	4.354	4.764	30.754	1.00	58.28	H	C
ATOM	2996	CE2	TYR	H	175	1.992	4.418	30.948	1.00	54.50	H	C
ATOM	2997	CZ	TYR	H	175	3.171	4.243	30.257	1.00	55.81	H	C
ATOM	2998	OH	TYR	H	175	3.166	3.509	29.089	1.00	41.75	H	O
ATOM	2999	N	THR	H	176	5.058	7.452	36.171	1.00	41.73	H	N
ATOM	3000	CA	THR	H	176	5.362	8.499	37.139	1.00	38.73	H	C
ATOM	3001	C	THR	H	176	5.921	9.671	36.350	1.00	41.82	H	C
ATOM	3002	O	THR	H	176	6.933	9.528	35.645	1.00	36.33	H	O
ATOM	3003	CB	THR	H	176	6.468	8.094	38.131	1.00	41.02	H	C
ATOM	3004	OG1	THR	H	176	6.251	6.754	38.592	1.00	49.99	H	O
ATOM	3005	CG2	THR	H	176	6.480	9.045	39.310	1.00	36.35	H	C
ATOM	3006	N	LEU	H	177	5.268	10.822	36.439	1.00	38.99	H	N
ATOM	3007	CA	LEU	H	177	5.783	11.982	35.743	1.00	33.71	H	C
ATOM	3008	C	LEU	H	177	6.070	12.988	36.820	1.00	32.17	H	C
ATOM	3009	O	LEU	H	177	5.689	12.796	37.962	1.00	32.19	H	O
ATOM	3010	CB	LEU	H	177	4.779	12.526	34.729	1.00	30.29	H	C
ATOM	3011	CG	LEU	H	177	3.660	13.499	35.078	1.00	31.11	H	C
ATOM	3012	CD1	LEU	H	177	4.186	14.867	35.498	1.00	32.05	H	C
ATOM	3013	CD2	LEU	H	177	2.830	13.652	33.831	1.00	37.80	H	C
ATOM	3014	N	SER	H	178	6.751	14.060	36.463	1.00	37.29	H	N
ATOM	3015	CA	SER	H	178	7.105	15.065	37.440	1.00	36.26	H	C
ATOM	3016	C	SER	H	178	6.994	16.416	36.761	1.00	40.62	H	C
ATOM	3017	O	SER	H	178	7.258	16.532	35.562	1.00	37.73	H	O
ATOM	3018	CB	SER	H	178	8.534	14.831	37.906	1.00	33.83	H	C
ATOM	3019	OG	SER	H	178	8.654	15.142	39.273	1.00	53.70	H	O
ATOM	3020	N	SER	H	179	6.600	17.437	37.511	1.00	35.74	H	N
ATOM	3021	CA	SER	H	179	6.437	18.737	36.871	1.00	36.88	H	C
ATOM	3022	C	SER	H	179	6.953	19.862	37.767	1.00	39.97	H	C
ATOM	3023	O	SER	H	179	6.677	19.929	38.957	1.00	43.93	H	O
ATOM	3024	CB	SER	H	179	4.951	18.948	36.573	1.00	41.66	H	C
ATOM	3025	OG	SER	H	179	4.812	19.938	35.551	1.00	41.44	H	O
ATOM	3026	N	SER	H	180	7.770	20.740	37.161	1.00	44.77	H	N
ATOM	3027	CA	SER	H	180	8.376	21.808	37.942	1.00	47.17	H	C
ATOM	3028	C	SER	H	180	7.933	23.189	37.460	1.00	51.73	H	C
ATOM	3029	O	SER	H	180	7.776	23.451	36.275	1.00	56.63	H	O
ATOM	3030	CB	SER	H	180	9.893	21.679	37.813	1.00	46.70	H	C
ATOM	3031	OG	SER	H	180	10.300	22.191	36.544	1.00	39.66	H	O
ATOM	3032	N	VAL	H	181	7.692	24.080	38.438	1.00	54.79	H	N
ATOM	3033	CA	VAL	H	181	7.318	25.443	38.088	1.00	52.01	H	C
ATOM	3034	C	VAL	H	181	8.212	26.458	38.796	1.00	50.47	H	C
ATOM	3035	O	VAL	H	181	8.466	26.375	39.990	1.00	47.10	H	O
ATOM	3036	CB	VAL	H	181	5.862	25.661	38.501	1.00	50.38	H	C
ATOM	3037	CG1	VAL	H	181	5.748	25.673	40.024	1.00	47.12	H	C
ATOM	3038	CG2	VAL	H	181	5.365	26.985	37.951	1.00	39.28	H	C
ATOM	3039	N	THR	H	182	8.750	27.411	38.043	1.00	48.35	H	N
ATOM	3040	CA	THR	H	182	9.638	28.427	38.599	1.00	48.08	H	C
ATOM	3041	C	THR	H	182	8.954	29.788	38.586	1.00	51.63	H	C
ATOM	3042	O	THR	H	182	8.259	30.134	37.629	1.00	50.26	H	O
ATOM	3043	CB	THR	H	182	10.948	28.523	37.791	1.00	47.88	H	C
ATOM	3044	OG1	THR	H	182	11.621	27.264	37.831	1.00	51.81	H	O
ATOM	3045	CG2	THR	H	182	11.855	29.590	38.363	1.00	29.17	H	C
ATOM	3046	N	VAL	H	183	9.161	30.555	39.653	1.00	56.66	H	N

ATOM	3047	CA	VAL	H	183	8.566	31.882	39.791	1.00	57.17	H	C
ATOM	3048	C	VAL	H	183	9.449	32.755	40.650	1.00	59.90	H	C
ATOM	3049	O	VAL	H	183	10.231	32.257	41.454	1.00	59.55	H	O
ATOM	3050	CB	VAL	H	183	7.199	31.834	40.508	1.00	58.93	H	C
ATOM	3051	CG1	VAL	H	183	6.271	30.839	39.826	1.00	61.72	H	C
ATOM	3052	CG2	VAL	H	183	7.403	31.475	41.971	1.00	41.35	H	C
ATOM	3053	N	PRO	H	184	9.329	34.080	40.496	1.00	66.40	H	N
ATOM	3054	CA	PRO	H	184	10.142	34.990	41.300	1.00	66.49	H	C
ATOM	3055	C	PRO	H	184	9.825	34.725	42.765	1.00	67.25	H	C
ATOM	3056	O	PRO	H	184	8.738	34.249	43.093	1.00	66.00	H	O
ATOM	3057	CB	PRO	H	184	9.673	36.367	40.841	1.00	64.64	H	C
ATOM	3058	CG	PRO	H	184	9.314	36.132	39.408	1.00	71.49	H	C
ATOM	3059	CD	PRO	H	184	8.552	34.825	39.491	1.00	70.81	H	C
ATOM	3060	N	SER	H	185	10.779	35.012	43.640	1.00	66.78	H	N
ATOM	3061	CA	SER	H	185	10.586	34.790	45.061	1.00	67.40	H	C
ATOM	3062	C	SER	H	185	9.352	35.537	45.572	1.00	72.49	H	C
ATOM	3063	O	SER	H	185	8.673	35.081	46.492	1.00	73.45	H	O
ATOM	3064	CB	SER	H	185	11.827	35.245	45.817	1.00	66.63	H	C
ATOM	3065	OG	SER	H	185	12.993	34.763	45.181	1.00	65.52	H	O
ATOM	3066	N	SER	H	186	9.061	36.689	44.977	1.00	72.88	H	N
ATOM	3067	CA	SER	H	186	7.904	37.461	45.399	1.00	76.17	H	C
ATOM	3068	C	SER	H	186	6.633	36.611	45.310	1.00	78.37	H	C
ATOM	3069	O	SER	H	186	6.016	36.312	46.336	1.00	80.30	H	O
ATOM	3070	CB	SER	H	186	7.768	38.737	44.554	1.00	75.54	H	C
ATOM	3071	OG	SER	H	186	8.710	38.758	43.495	1.00	64.86	H	O
ATOM	3072	N	PRO	H	187	6.246	36.185	44.089	1.00	75.34	H	N
ATOM	3073	CA	PRO	H	187	5.051	35.367	43.859	1.00	69.64	H	C
ATOM	3074	C	PRO	H	187	4.756	34.323	44.928	1.00	66.91	H	C
ATOM	3075	O	PRO	H	187	3.648	34.269	45.451	1.00	68.67	H	O
ATOM	3076	CB	PRO	H	187	5.332	34.736	42.502	1.00	71.74	H	C
ATOM	3077	CG	PRO	H	187	6.029	35.838	41.782	1.00	71.69	H	C
ATOM	3078	CD	PRO	H	187	6.996	36.358	42.829	1.00	78.09	H	C
ATOM	3079	N	ARG	H	188	5.745	33.496	45.251	1.00	65.41	H	N
ATOM	3080	CA	ARG	H	188	5.568	32.446	46.255	1.00	66.06	H	C
ATOM	3081	C	ARG	H	188	6.649	32.600	47.319	1.00	71.72	H	C
ATOM	3082	O	ARG	H	188	7.776	32.982	47.017	1.00	73.68	H	O
ATOM	3083	CB	ARG	H	188	5.680	31.070	45.583	1.00	63.16	H	C
ATOM	3084	CG	ARG	H	188	4.610	30.050	45.956	1.00	47.34	H	C
ATOM	3085	CD	ARG	H	188	4.956	29.292	47.212	1.00	42.91	H	C
ATOM	3086	NE	ARG	H	188	6.371	28.942	47.242	1.00	58.37	H	N
ATOM	3087	CZ	ARG	H	188	6.941	28.200	48.185	1.00	63.59	H	C
ATOM	3088	NH1	ARG	H	188	6.221	27.717	49.188	1.00	58.02	H	N
ATOM	3089	NH2	ARG	H	188	8.239	27.947	48.132	1.00	75.00	H	N
ATOM	3090	N	PRO	H	189	6.324	32.290	48.581	1.00	73.56	H	N
ATOM	3091	CA	PRO	H	189	5.021	31.810	49.055	1.00	76.25	H	C
ATOM	3092	C	PRO	H	189	4.006	32.893	49.415	1.00	80.21	H	C
ATOM	3093	O	PRO	H	189	3.307	32.775	50.421	1.00	86.41	H	O
ATOM	3094	CB	PRO	H	189	5.400	30.964	50.263	1.00	76.00	H	C
ATOM	3095	CG	PRO	H	189	6.524	31.757	50.848	1.00	75.53	H	C
ATOM	3096	CD	PRO	H	189	7.346	32.143	49.633	1.00	74.81	H	C
ATOM	3097	N	SER	H	190	3.915	33.940	48.603	1.00	80.77	H	N
ATOM	3098	CA	SER	H	190	2.963	35.010	48.879	1.00	82.18	H	C
ATOM	3099	C	SER	H	190	1.719	34.817	48.030	1.00	81.86	H	C
ATOM	3100	O	SER	H	190	0.702	35.464	48.254	1.00	81.36	H	O
ATOM	3101	CB	SER	H	190	3.578	36.377	48.571	1.00	83.27	H	C
ATOM	3102	OG	SER	H	190	3.707	36.570	47.174	1.00	87.49	H	O
ATOM	3103	N	GLU	H	191	1.811	33.924	47.052	1.00	81.18	H	N
ATOM	3104	CA	GLU	H	191	0.694	33.642	46.162	1.00	80.63	H	C
ATOM	3105	C	GLU	H	191	0.523	32.143	45.934	1.00	82.13	H	C
ATOM	3106	O	GLU	H	191	1.465	31.447	45.558	1.00	80.46	H	O
ATOM	3107	CB	GLU	H	191	0.903	34.334	44.820	1.00	81.67	H	C

	ATOM	3108	CG	GLU	H	191	0.887	35.844	44.879	1.00	78.66	H C
	ATOM	3109	CD	GLU	H	191	1.138	36.466	43.518	1.00	84.10	H C
	ATOM	3110	OE1	GLU	H	191	0.440	36.081	42.552	1.00	79.16	H O
	ATOM	3111	OE2	GLU	H	191	2.028	37.338	43.417	1.00	84.64	H O
5	ATOM	3112	N	THR	H	192	-0.697	31.665	46.150	1.00	82.97	H N
	ATOM	3113	CA	THR	H	192	-1.035	30.254	45.998	1.00	82.00	H C
	ATOM	3114	C	THR	H	192	-0.683	29.609	44.663	1.00	80.53	H C
	ATOM	3115	O	THR	H	192	-1.405	29.767	43.679	1.00	80.71	H O
	ATOM	3116	CB	THR	H	192	-2.536	30.021	46.230	1.00	80.05	H C
10	ATOM	3117	OG1	THR	H	192	-2.869	30.370	47.577	1.00	88.12	H O
	ATOM	3118	CG2	THR	H	192	-2.895	28.569	45.978	1.00	78.28	H C
	ATOM	3119	N	VAL	H	193	0.426	28.877	44.636	1.00	75.98	H N
	ATOM	3120	CA	VAL	H	193	0.836	28.165	43.432	1.00	68.25	H C
	ATOM	3121	C	VAL	H	193	0.149	26.807	43.529	1.00	65.36	H C
15	ATOM	3122	O	VAL	H	193	0.328	26.087	44.509	1.00	64.64	H O
	ATOM	3123	CB	VAL	H	193	2.360	27.972	43.384	1.00	66.83	H C
	ATOM	3124	CG1	VAL	H	193	2.718	27.022	42.265	1.00	70.86	H C
	ATOM	3125	CG2	VAL	H	193	3.046	29.313	43.170	1.00	66.13	H C
	ATOM	3126	N	THR	H	194	-0.644	26.455	42.525	1.00	64.29	H N
20	ATOM	3127	CA	THR	H	194	-1.364	25.190	42.575	1.00	65.18	H C
	ATOM	3128	C	THR	H	194	-1.173	24.250	41.390	1.00	63.54	H C
	ATOM	3129	O	THR	H	194	-1.145	24.670	40.237	1.00	64.27	H O
	ATOM	3130	CB	THR	H	194	-2.869	25.437	42.752	1.00	65.84	H C
	ATOM	3131	OG1	THR	H	194	-3.085	26.186	43.952	1.00	67.51	H O
25	ATOM	3132	CG2	THR	H	194	-3.622	24.110	42.825	1.00	67.60	H C
	ATOM	3133	N	CYS	H	195	-1.068	22.964	41.702	1.00	60.79	H N
	ATOM	3134	CA	CYS	H	195	-0.878	21.930	40.699	1.00	61.12	H C
	ATOM	3135	C	CYS	H	195	-2.215	21.268	40.365	1.00	57.72	H C
	ATOM	3136	O	CYS	H	195	-2.912	20.771	41.248	1.00	56.12	H O
30	ATOM	3137	CB	CYS	H	195	0.124	20.891	41.222	1.00	60.88	H C
	ATOM	3138	SG	CYS	H	195	0.445	19.499	40.098	1.00	74.47	H S
	ATOM	3139	N	ASN	H	196	-2.559	21.265	39.081	1.00	52.67	H N
	ATOM	3140	CA	ASN	H	196	-3.807	20.682	38.606	1.00	53.59	H C
	ATOM	3141	C	ASN	H	196	-3.467	19.433	37.787	1.00	52.35	H C
35	ATOM	3142	O	ASN	H	196	-2.757	19.523	36.785	1.00	51.73	H O
	ATOM	3143	CB	ASN	H	196	-4.535	21.701	37.728	1.00	59.81	H C
	ATOM	3144	CG	ASN	H	196	-4.395	23.130	38.247	1.00	62.00	H C
	ATOM	3145	OD1	ASN	H	196	-4.161	24.061	37.472	1.00	67.81	H O
	ATOM	3146	ND2	ASN	H	196	-4.541	23.310	39.556	1.00	65.11	H N
40	ATOM	3147	N	VAL	H	197	-3.982	18.276	38.199	1.00	49.58	H N
	ATOM	3148	CA	VAL	H	197	-3.689	17.016	37.512	1.00	46.57	H C
	ATOM	3149	C	VAL	H	197	-4.930	16.190	37.159	1.00	48.56	H C
	ATOM	3150	O	VAL	H	197	-5.888	16.135	37.925	1.00	53.48	H O
	ATOM	3151	CB	VAL	H	197	-2.750	16.143	38.381	1.00	44.48	H C
45	ATOM	3152	CG1	VAL	H	197	-2.412	14.851	37.666	1.00	39.07	H C
	ATOM	3153	CG2	VAL	H	197	-1.495	16.923	38.718	1.00	37.49	H C
	ATOM	3154	N	ALA	H	198	-4.897	15.532	36.002	1.00	49.52	H N
	ATOM	3155	CA	ALA	H	198	-6.021	14.717	35.551	1.00	48.53	H C
	ATOM	3156	C	ALA	H	198	-5.610	13.434	34.832	1.00	51.07	H C
50	ATOM	3157	O	ALA	H	198	-4.711	13.441	33.993	1.00	55.91	H O
	ATOM	3158	CB	ALA	H	198	-6.910	15.543	34.643	1.00	48.57	H C
	ATOM	3159	N	HIS	H	199	-6.281	12.336	35.174	1.00	54.83	H N
	ATOM	3160	CA	HIS	H	199	-6.037	11.031	34.561	1.00	51.27	H C
	ATOM	3161	C	HIS	H	199	-7.384	10.385	34.250	1.00	51.92	H C
55	ATOM	3162	O	HIS	H	199	-7.882	9.555	35.002	1.00	46.18	H O
	ATOM	3163	CB	HIS	H	199	-5.218	10.138	35.496	1.00	47.91	H C
	ATOM	3164	CG	HIS	H	199	-5.003	8.745	34.982	1.00	42.99	H C
	ATOM	3165	ND1	HIS	H	199	-5.849	7.699	35.281	1.00	52.90	H N
	ATOM	3166	CD2	HIS	H	199	-4.026	8.221	34.203	1.00	52.68	H C
60	ATOM	3167	CE1	HIS	H	199	-5.403	6.593	34.713	1.00	50.68	H C
	ATOM	3168	NE2	HIS	H	199	-4.297	6.882	34.053	1.00	47.65	H N

ATOM	3169	N	PRO	H	200	-7.989	10.778	33.120	1.00	58.59	H N
ATOM	3170	CA	PRO	H	200	-9.277	10.323	32.593	1.00	60.75	H C
ATOM	3171	C	PRO	H	200	-9.504	8.822	32.689	1.00	60.27	H C
ATOM	3172	O	PRO	H	200	-10.551	8.376	33.152	1.00	64.21	H O
ATOM	3173	CB	PRO	H	200	-9.236	10.800	31.146	1.00	61.93	H C
ATOM	3174	CG	PRO	H	200	-8.483	12.082	31.255	1.00	60.39	H C
ATOM	3175	CD	PRO	H	200	-7.342	11.699	32.167	1.00	60.10	H C
ATOM	3176	N	ALA	H	201	-8.523	8.047	32.244	1.00	57.28	H N
ATOM	3177	CA	ALA	H	201	-8.632	6.600	32.269	1.00	57.95	H C
ATOM	3178	C	ALA	H	201	-9.267	6.127	33.578	1.00	64.27	H C
ATOM	3179	O	ALA	H	201	-9.869	5.054	33.641	1.00	67.28	H O
ATOM	3180	CB	ALA	H	201	-7.263	5.979	32.079	1.00	53.21	H C
ATOM	3181	N	SER	H	202	-9.135	6.936	34.620	1.00	64.03	H N
ATOM	3182	CA	SER	H	202	-9.708	6.603	35.912	1.00	67.56	H C
ATOM	3183	C	SER	H	202	-10.529	7.790	36.400	1.00	71.63	H C
ATOM	3184	O	SER	H	202	-11.048	7.783	37.516	1.00	75.10	H O
ATOM	3185	CB	SER	H	202	-8.602	6.301	36.919	1.00	68.02	H C
ATOM	3186	OG	SER	H	202	-7.878	7.475	37.234	1.00	60.70	H O
ATOM	3187	N	SER	H	203	-10.639	8.809	35.552	1.00	73.88	H N
ATOM	3188	CA	SER	H	203	-11.383	10.014	35.887	1.00	75.67	H C
ATOM	3189	C	SER	H	203	-10.951	10.512	37.253	1.00	70.02	H C
ATOM	3190	O	SER	H	203	-11.738	10.537	38.190	1.00	70.12	H O
ATOM	3191	CB	SER	H	203	-12.888	9.732	35.888	1.00	81.76	H C
ATOM	3192	OG	SER	H	203	-13.367	9.502	34.571	1.00	92.44	H O
ATOM	3193	N	THR	H	204	-9.690	10.908	37.353	1.00	69.13	H N
ATOM	3194	CA	THR	H	204	-9.129	11.395	38.602	1.00	68.07	H C
ATOM	3195	C	THR	H	204	-8.638	12.825	38.462	1.00	69.60	H C
ATOM	3196	O	THR	H	204	-7.549	13.069	37.955	1.00	75.93	H O
ATOM	3197	CB	THR	H	204	-7.941	10.523	39.038	1.00	67.90	H C
ATOM	3198	OG1	THR	H	204	-8.377	9.169	39.197	1.00	69.69	H O
ATOM	3199	CG2	THR	H	204	-7.367	11.021	40.346	1.00	68.98	H C
ATOM	3200	N	LYS	H	205	-9.444	13.779	38.899	1.00	71.84	H N
ATOM	3201	CA	LYS	H	205	-9.041	15.171	38.824	1.00	72.92	H C
ATOM	3202	C	LYS	H	205	-8.508	15.512	40.206	1.00	70.26	H C
ATOM	3203	O	LYS	H	205	-9.036	15.027	41.200	1.00	70.61	H O
ATOM	3204	CB	LYS	H	205	-10.240	16.055	38.479	1.00	76.81	H C
ATOM	3205	CG	LYS	H	205	-9.928	17.541	38.480	1.00	93.84	H C
ATOM	3206	CD	LYS	H	205	-11.159	18.374	38.140	1.00	119.23	H C
ATOM	3207	CE	LYS	H	205	-10.866	19.875	38.218	1.00	127.13	H C
ATOM	3208	NZ	LYS	H	205	-10.500	20.334	39.593	1.00	118.10	H N
ATOM	3209	N	VAL	H	206	-7.455	16.323	40.273	1.00	71.24	H N
ATOM	3210	CA	VAL	H	206	-6.865	16.710	41.554	1.00	65.47	H C
ATOM	3211	C	VAL	H	206	-6.097	18.015	41.458	1.00	66.88	H C
ATOM	3212	O	VAL	H	206	-5.419	18.270	40.464	1.00	63.59	H O
ATOM	3213	CB	VAL	H	206	-5.879	15.648	42.080	1.00	60.18	H C
ATOM	3214	CG1	VAL	H	206	-5.211	16.151	43.341	1.00	59.04	H C
ATOM	3215	CG2	VAL	H	206	-6.595	14.354	42.363	1.00	58.52	H C
ATOM	3216	N	ASP	H	207	-6.211	18.835	42.502	1.00	70.84	H N
ATOM	3217	CA	ASP	H	207	-5.512	20.119	42.581	1.00	72.83	H C
ATOM	3218	C	ASP	H	207	-4.636	20.118	43.832	1.00	72.60	H C
ATOM	3219	O	ASP	H	207	-5.119	19.821	44.927	1.00	75.84	H O
ATOM	3220	CB	ASP	H	207	-6.511	21.278	42.659	1.00	71.33	H C
ATOM	3221	CG	ASP	H	207	-7.287	21.477	41.364	1.00	77.68	H C
ATOM	3222	OD1	ASP	H	207	-6.681	21.899	40.354	1.00	80.92	H O
ATOM	3223	OD2	ASP	H	207	-8.508	21.207	41.352	1.00	90.49	H O
ATOM	3224	N	LYS	H	208	-3.353	20.439	43.672	1.00	71.66	H N
ATOM	3225	CA	LYS	H	208	-2.431	20.471	44.805	1.00	67.72	H C
ATOM	3226	C	LYS	H	208	-1.774	21.829	45.029	1.00	67.29	H C
ATOM	3227	O	LYS	H	208	-1.123	22.387	44.143	1.00	60.51	H O
ATOM	3228	CB	LYS	H	208	-1.348	19.408	44.645	1.00	61.97	H C
ATOM	3229	CG	LYS	H	208	-1.885	18.004	44.650	1.00	70.11	H C

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ATOM   3230  CD  LYS H 208      -2.596  17.706  45.952  1.00 79.56      H    C
ATOM   3231  CE  LYS H 208      -1.633  17.728  47.136  1.00 79.20      H    C
ATOM   3232  NZ  LYS H 208      -2.313  17.296  48.397  1.00 74.65      H    N
ATOM   3233  N   LYS H 209      -1.959  22.348  46.235  1.00 68.04      H    N
ATOM   3234  CA  LYS H 209      -1.396  23.624  46.632  1.00 68.05      H    C
ATOM   3235  C   LYS H 209      -0.056  23.336  47.309  1.00 68.52      H    C
ATOM   3236  O   LYS H 209       0.067  22.404  48.111  1.00 68.41      H    O
ATOM   3237  CB  LYS H 209      -2.364  24.326  47.594  1.00 69.90      H    C
ATOM   3238  CG  LYS H 209      -1.838  25.586  48.257  1.00 66.76      H    C
ATOM   3239  CD  LYS H 209      -2.792  26.024  49.348  1.00 78.35      H    C
ATOM   3240  CE  LYS H 209      -2.194  27.115  50.220  1.00 94.10      H    C
ATOM   3241  NZ  LYS H 209      -3.031  27.382  51.432  1.00 96.38      H    N
ATOM   3242  N   ILE H 210       0.948  24.135  46.975  1.00 69.42      H    N
ATOM   3243  CA  ILE H 210       2.323  23.907  47.378  1.00 69.31      H    C
ATOM   3244  C   ILE H 210       2.654  24.760  48.593  1.00 73.85      H    C
ATOM   3245  O   ILE H 210       2.905  25.965  48.538  1.00 72.23      H    O
ATOM   3246  CB  ILE H 210       3.289  24.189  46.204  1.00 63.42      H    C
ATOM   3247  CG1 ILE H 210       2.763  23.606  44.883  1.00 55.85      H    C
ATOM   3248  CG2 ILE H 210       4.654  23.519  46.467  1.00 53.59      H    C
ATOM   3249  CD1 ILE H 210       2.724  22.077  44.880  1.00 42.80      H    C
TER    3250      ILE H 210
ATOM   3251  S   SO4 Z   1     -12.465   8.279  -5.420  1.00139.70      Z    S
ATOM   3252  O5  SO4 Z   1     -11.496   7.532  -4.640  1.00128.34      Z    O
ATOM   3253  O2  SO4 Z   1     -13.354   9.016  -4.584  1.00133.20      Z    O
ATOM   3254  O3  SO4 Z   1     -11.721   8.960  -6.420  1.00143.54      Z    O
ATOM   3255  O4  SO4 Z   1     -13.284   7.173  -6.136  1.00137.69      Z    O
TER    3256      SO4 Z   1
ATOM   3257  O   HOH W   1       6.642  26.255  11.504  1.00 44.22      W    O
ATOM   3258  O   HOH W   2      28.229  27.688  14.335  1.00 47.65      W    O
ATOM   3259  O   HOH W   3       4.085  20.721  15.240  1.00 46.98      W    O
ATOM   3260  O   HOH W   4      -2.722  25.529   5.319  1.00 43.81      W    O
ATOM   3261  O   HOH W   5      -0.482  15.335  20.340  1.00 56.36      W    O
ATOM   3262  O   HOH W   6      -9.832  15.976  -2.164  1.00 56.06      W    O
ATOM   3263  O   HOH W   7      -1.203  25.888  -0.428  1.00 50.40      W    O
ATOM   3264  O   HOH W   8     -10.065  13.544  33.937  1.00 59.05      W    O
ATOM   3265  O   HOH W   9      -4.782  15.152  -5.651  1.00 58.18      W    O
ATOM   3266  O   HOH W  10      -3.602  22.705   2.193  1.00 48.13      W    O
ATOM   3267  O   HOH W  11     -11.748  12.731  -2.744  1.00 46.32      W    O
ATOM   3268  O   HOH W  12      12.028  16.121  18.701  1.00 41.71      W    O
ATOM   3269  O   HOH W  13       3.379  -3.325   0.685  1.00 44.58      W    O
ATOM   3270  O   HOH W  14      17.930  21.064  55.610  1.00 32.59      W    O
ATOM   3271  O   HOH W  15      -0.999  21.444   1.050  1.00 39.37      W    O
ATOM   3272  O   HOH W  16      -7.188  20.691  15.900  1.00 58.62      W    O
ATOM   3273  O   HOH W  17      11.612   6.022  14.835  1.00 63.80      W    O
ATOM   3274  O   HOH W  18     -21.984   9.843   5.129  1.00 40.92      W    O
ATOM   3275  O   HOH W  19     -13.113  -7.726  18.949  1.00 55.85      W    O
ATOM   3276  O   HOH W  20      11.899  30.835  17.167  1.00 51.40      W    O
ATOM   3277  O   HOH W  21       5.068   4.550   7.254  1.00 66.68      W    O
ATOM   3278  O   HOH W  22      10.249  11.292  38.205  1.00 65.97      W    O
ATOM   3279  O   HOH W  23       8.242  27.276  13.281  1.00 40.53      W    O
ATOM   3280  O   HOH W  24      27.126  25.654  13.317  1.00 36.28      W    O
ATOM   3281  O   HOH W  25      -2.011  21.099  11.221  1.00 36.94      W    O
ATOM   3282  O   HOH W  26       4.152  14.440  20.408  1.00 44.38      W    O
ATOM   3283  O   HOH W  27       3.465   8.412  20.717  1.00 36.27      W    O
ATOM   3284  O   HOH W  28      -3.739  26.158  -0.964  1.00 59.49      W    O
ATOM   3285  O   HOH W  29       8.758  15.447  18.540  1.00 58.26      W    O
ATOM   3286  O   HOH W  30      11.634   3.618   7.590  1.00 64.90      W    O
ATOM   3287  O   HOH W  31       9.169  11.593  35.533  1.00 53.91      W    O
ATOM   3288  O   HOH W  32      21.365   7.678   8.159  1.00 56.30      W    O
ATOM   3289  O   HOH W  33       1.667  26.705  -2.342  1.00 34.36      W    O
ATOM   3290  O   HOH W  34      -0.777   2.920  -5.893  1.00 54.04      W    O
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	ATOM	3291	O	HOH	W	35	-1.979	6.414	-4.690	1.00	86.59	W	O
	ATOM	3292	O	HOH	W	36	6.580	2.378	7.003	1.00	56.10	W	O
	ATOM	3293	O	HOH	W	37	8.782	3.265	5.256	1.00	35.26	W	O
	ATOM	3294	O	HOH	W	38	16.061	8.450	10.733	1.00	59.25	W	O
5	ATOM	3295	O	HOH	W	39	29.645	4.189	52.482	1.00	54.67	W	O
	ATOM	3296	O	HOH	W	40	20.575	4.765	61.334	1.00	68.62	W	O
	ATOM	3297	O	HOH	W	41	-22.962	11.039	19.094	1.00	73.88	W	O
	ATOM	3298	O	HOH	W	42	-21.174	11.687	21.368	1.00	72.77	W	O
	ATOM	3299	O	HOH	W	43	-18.934	22.014	5.912	1.00	60.22	W	O
10	ATOM	3300	O	HOH	W	44	10.166	1.139	9.698	1.00	47.40	W	O
	ATOM	3301	O	HOH	W	45	-16.050	3.113	11.263	1.00	37.96	W	O
	ATOM	3302	O	HOH	W	46	16.088	23.610	39.697	1.00	46.51	W	O
	ATOM	3303	O	HOH	W	47	2.897	30.138	2.027	1.00	61.24	W	O
	ATOM	3304	O	HOH	W	48	24.057	1.224	45.686	1.00	48.96	W	O
15	ATOM	3305	O	HOH	W	49	23.165	21.916	7.479	1.00	66.86	W	O
	ATOM	3306	O	HOH	W	50	-11.702	14.692	23.074	1.00	50.02	W	O
	ATOM	3307	O	HOH	W	51	-12.219	-0.922	1.076	1.00	43.82	W	O
	ATOM	3308	O	HOH	W	52	12.391	12.245	37.897	1.00	49.94	W	O
	ATOM	3309	O	HOH	W	53	4.767	11.266	29.449	1.00	43.95	W	O
20	ATOM	3310	O	HOH	W	54	-3.099	21.164	48.329	1.00	58.57	W	O
	ATOM	3311	O	HOH	W	55	12.781	10.766	29.425	1.00	53.41	W	O
	ATOM	3312	O	HOH	W	56	14.923	28.548	3.207	1.00	58.18	W	O
	ATOM	3313	O	HOH	W	57	16.115	16.431	-9.571	1.00	69.88	W	O
	ATOM	3314	O	HOH	W	58	21.324	3.649	64.100	1.00	72.27	W	O
25	ATOM	3315	O	HOH	W	59	23.726	4.646	63.378	1.00	57.04	W	O
	ATOM	3316	O	HOH	W	60	2.050	32.040	3.673	1.00	51.78	W	O
	ATOM	3317	O	HOH	W	61	2.457	33.745	5.919	1.00	56.71	W	O
	ATOM	3318	O	HOH	W	62	8.951	-2.545	-6.773	1.00	54.15	W	O
	ATOM	3319	O	HOH	W	63	-6.141	27.599	9.560	1.00	51.61	W	O
30	ATOM	3320	O	HOH	W	64	10.484	22.284	28.826	1.00	50.78	W	O
	TER	3321		HOH	W	64							

35 [a]Amino acids residues of the light (L) and heavy (H) chains are numbered according to the Chothia numbering system shown in Tables 6 and 7, respectively.
[b]Columns are labeled according to Protein Data Bank Format, Version 2.2

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Table 11. Structure coordinates of human IL-13/mAb13.2 Fab[a, b]

	#	Name	Res.	Chain	Res #	X	Y	Z	occ	B	SegID	Ele
ATOM	1	N	ASP	L	1	19.935	-6.154	103.296	1.00	32.51	L	N
ATOM	2	CA	ASP	L	1	19.850	-5.026	102.305	1.00	31.66	L	C
ATOM	3	C	ASP	L	1	20.682	-3.882	102.873	1.00	33.17	L	C
ATOM	4	O	ASP	L	1	20.895	-3.771	104.096	1.00	35.13	L	O
ATOM	5	CB	ASP	L	1	18.401	-4.586	102.115	1.00	32.59	L	C
ATOM	6	CG	ASP	L	1	17.478	-5.746	101.733	1.00	38.56	L	C
ATOM	7	OD1	ASP	L	1	17.953	-6.910	101.564	1.00	32.48	L	O
ATOM	8	OD2	ASP	L	1	16.273	-5.483	101.616	1.00	40.42	L	O
ATOM	9	N	ILE	L	2	21.224	-3.062	101.987	1.00	28.09	L	N
ATOM	10	CA	ILE	L	2	22.045	-1.948	102.451	1.00	25.55	L	C
ATOM	11	C	ILE	L	2	21.091	-0.844	102.909	1.00	24.79	L	C
ATOM	12	O	ILE	L	2	20.173	-0.469	102.186	1.00	23.23	L	O
ATOM	13	CB	ILE	L	2	22.965	-1.444	101.317	1.00	24.03	L	C
ATOM	14	CG1	ILE	L	2	23.822	-2.608	100.829	1.00	23.16	L	C
ATOM	15	CG2	ILE	L	2	23.837	-0.288	101.800	1.00	21.56	L	C
ATOM	16	CD1	ILE	L	2	24.903	-2.205	99.809	1.00	25.01	L	C
ATOM	17	N	VAL	L	3	21.345	-0.288	104.091	1.00	19.63	L	N
ATOM	18	CA	VAL	L	3	20.480	0.748	104.626	1.00	23.36	L	C
ATOM	19	C	VAL	L	3	21.211	2.047	104.535	1.00	20.65	L	C
ATOM	20	O	VAL	L	3	22.377	2.136	104.919	1.00	17.60	L	O
ATOM	21	CB	VAL	L	3	20.136	0.498	106.139	1.00	25.72	L	C
ATOM	22	CG1	VAL	L	3	19.351	1.686	106.702	1.00	18.81	L	C
ATOM	23	CG2	VAL	L	3	19.339	-0.857	106.283	1.00	24.17	L	C
ATOM	24	N	LEU	L	4	20.508	3.071	104.059	1.00	14.42	L	N
ATOM	25	CA	LEU	L	4	21.161	4.374	103.883	1.00	18.70	L	C
ATOM	26	C	LEU	L	4	20.546	5.304	104.877	1.00	18.25	L	C
ATOM	27	O	LEU	L	4	19.327	5.432	104.897	1.00	17.11	L	O
ATOM	28	CB	LEU	L	4	20.915	4.936	102.460	1.00	17.37	L	C
ATOM	29	CG	LEU	L	4	21.456	4.027	101.325	1.00	18.48	L	C
ATOM	30	CD1	LEU	L	4	21.321	4.756	99.972	1.00	21.81	L	C
ATOM	31	CD2	LEU	L	4	22.892	3.634	101.547	1.00	10.40	L	C
ATOM	32	N	THR	L	5	21.397	5.948	105.669	1.00	17.41	L	N
ATOM	33	CA	THR	L	5	20.896	6.865	106.687	1.00	16.63	L	C
ATOM	34	C	THR	L	5	21.375	8.274	106.385	1.00	15.60	L	C
ATOM	35	O	THR	L	5	22.582	8.522	106.333	1.00	18.70	L	O
ATOM	36	CB	THR	L	5	21.394	6.433	108.085	1.00	20.60	L	C
ATOM	37	OG1	THR	L	5	20.969	5.078	108.303	1.00	20.77	L	O
ATOM	38	CG2	THR	L	5	20.809	7.344	109.172	1.00	10.87	L	C
ATOM	39	N	GLN	L	6	20.429	9.174	106.204	1.00	14.48	L	N
ATOM	40	CA	GLN	L	6	20.786	10.551	105.891	1.00	19.27	L	C
ATOM	41	C	GLN	L	6	20.774	11.432	107.115	1.00	20.35	L	C
ATOM	42	O	GLN	L	6	20.023	11.191	108.046	1.00	21.38	L	O
ATOM	43	CB	GLN	L	6	19.848	11.096	104.796	1.00	15.21	L	C
ATOM	44	CG	GLN	L	6	20.026	10.323	103.428	1.00	18.45	L	C
ATOM	45	CD	GLN	L	6	19.185	10.956	102.327	1.00	11.83	L	C
ATOM	46	OE1	GLN	L	6	18.438	10.297	101.640	1.00	18.94	L	O
ATOM	47	NE2	GLN	L	6	19.304	12.278	102.179	1.00	17.09	L	N
ATOM	48	N	SER	L	7	21.629	12.437	107.115	1.00	22.15	L	N
ATOM	49	CA	SER	L	7	21.659	13.375	108.226	1.00	23.60	L	C
ATOM	50	C	SER	L	7	22.105	14.733	107.717	1.00	22.73	L	C
ATOM	51	O	SER	L	7	22.919	14.831	106.800	1.00	20.83	L	O
ATOM	52	CB	SER	L	7	22.626	12.925	109.313	1.00	21.45	L	C
ATOM	53	OG	SER	L	7	23.935	12.943	108.812	1.00	36.06	L	O
ATOM	54	N	PRO	L	8	21.476	15.799	108.238	1.00	21.92	L	N
ATOM	55	CA	PRO	L	8	20.388	15.763	109.237	1.00	17.23	L	C
ATOM	56	C	PRO	L	8	19.108	15.448	108.500	1.00	18.60	L	C
ATOM	57	O	PRO	L	8	19.129	15.322	107.288	1.00	18.30	L	O

	ATOM	58	CB	PRO	L	8	20.352	17.214	109.770	1.00	16.36	L	C
	ATOM	59	CG	PRO	L	8	20.657	18.012	108.547	1.00	15.96	L	C
	ATOM	60	CD	PRO	L	8	21.871	17.182	107.933	1.00	16.22	L	C
	ATOM	61	N	ALA	L	9	17.992	15.350	109.217	1.00	21.69	L	N
5	ATOM	62	CA	ALA	L	9	16.728	15.087	108.575	1.00	20.93	L	C
	ATOM	63	C	ALA	L	9	16.280	16.348	107.883	1.00	23.87	L	C
	ATOM	64	O	ALA	L	9	15.597	16.301	106.847	1.00	23.97	L	O
	ATOM	65	CB	ALA	L	9	15.664	14.668	109.609	1.00	16.15	L	C
	ATOM	66	N	SER	L	10	16.645	17.501	108.463	1.00	23.97	L	N
10	ATOM	67	CA	SER	L	10	16.221	18.779	107.890	1.00	23.55	L	C
	ATOM	68	C	SER	L	10	17.394	19.757	108.162	1.00	20.78	L	C
	ATOM	69	O	SER	L	10	18.035	19.669	109.245	1.00	20.28	L	O
	ATOM	70	CB	SER	L	10	14.973	19.288	108.657	1.00	19.45	L	C
	ATOM	71	OG	SER	L	10	14.366	20.370	107.960	1.00	36.04	L	O
15	ATOM	72	N	LEU	L	11	17.634	20.652	107.203	1.00	16.86	L	N
	ATOM	73	CA	LEU	L	11	18.736	21.642	107.298	1.00	17.36	L	C
	ATOM	74	C	LEU	L	11	18.236	22.969	106.760	1.00	17.41	L	C
	ATOM	75	O	LEU	L	11	17.601	22.996	105.724	1.00	20.59	L	O
	ATOM	76	CB	LEU	L	11	19.915	21.175	106.395	1.00	21.77	L	C
20	ATOM	77	CG	LEU	L	11	21.034	22.165	106.165	1.00	24.51	L	C
	ATOM	78	CD1	LEU	L	11	21.679	22.491	107.531	1.00	36.89	L	C
	ATOM	79	CD2	LEU	L	11	22.085	21.573	105.281	1.00	37.85	L	C
	ATOM	80	N	ALA	L	12	18.523	24.079	107.460	1.00	16.76	L	N
	ATOM	81	CA	ALA	L	12	18.117	25.373	106.956	1.00	17.17	L	C
25	ATOM	82	C	ALA	L	12	19.398	26.247	106.827	1.00	16.24	L	C
	ATOM	83	O	ALA	L	12	20.179	26.279	107.755	1.00	14.64	L	O
	ATOM	84	CB	ALA	L	12	17.157	26.062	107.931	1.00	12.64	L	C
	ATOM	85	N	VAL	L	13	19.559	26.909	105.698	1.00	13.87	L	N
	ATOM	86	CA	VAL	L	13	20.690	27.848	105.538	1.00	13.69	L	C
30	ATOM	87	C	VAL	L	13	20.167	29.106	104.907	1.00	17.25	L	C
	ATOM	88	O	VAL	L	13	19.055	29.117	104.336	1.00	21.72	L	O
	ATOM	89	CB	VAL	L	13	21.818	27.286	104.656	1.00	15.08	L	C
	ATOM	90	CG1	VAL	L	13	22.280	25.958	105.301	1.00	10.62	L	C
	ATOM	91	CG2	VAL	L	13	21.357	27.096	103.157	1.00	9.18	L	C
35	ATOM	92	N	SER	L	14	20.923	30.202	105.000	1.00	15.71	L	N
	ATOM	93	CA	SER	L	14	20.466	31.440	104.326	1.00	14.91	L	C
	ATOM	94	C	SER	L	14	20.796	31.365	102.849	1.00	14.49	L	C
	ATOM	95	O	SER	L	14	21.709	30.635	102.423	1.00	13.93	L	O
	ATOM	96	CB	SER	L	14	21.203	32.682	104.941	1.00	11.69	L	C
40	ATOM	97	OG	SER	L	14	20.999	32.727	106.352	1.00	18.48	L	O
	ATOM	98	N	LEU	L	15	20.079	32.137	102.048	1.00	13.89	L	N
	ATOM	99	CA	LEU	L	15	20.330	32.173	100.620	1.00	16.79	L	C
	ATOM	100	C	LEU	L	15	21.824	32.522	100.384	1.00	17.38	L	C
	ATOM	101	O	LEU	L	15	22.354	33.409	101.025	1.00	21.74	L	O
45	ATOM	102	CB	LEU	L	15	19.462	33.258	99.927	1.00	14.69	L	C
	ATOM	103	CG	LEU	L	15	17.926	32.958	99.764	1.00	34.86	L	C
	ATOM	104	CD1	LEU	L	15	17.184	34.159	99.090	1.00	44.91	L	C
	ATOM	105	CD2	LEU	L	15	17.743	31.665	98.905	1.00	32.56	L	C
	ATOM	106	N	GLY	L	16	22.473	31.805	99.483	1.00	16.14	L	N
50	ATOM	107	CA	GLY	L	16	23.849	32.089	99.144	1.00	12.82	L	C
	ATOM	108	C	GLY	L	16	24.831	31.323	99.964	1.00	14.60	L	C
	ATOM	109	O	GLY	L	16	25.995	31.335	99.602	1.00	18.44	L	O
	ATOM	110	N	GLN	L	17	24.402	30.683	101.063	1.00	10.34	L	N
	ATOM	111	CA	GLN	L	17	25.309	29.914	101.882	1.00	12.15	L	C
55	ATOM	112	C	GLN	L	17	25.519	28.502	101.325	1.00	13.53	L	C
	ATOM	113	O	GLN	L	17	24.873	28.108	100.371	1.00	14.77	L	O
	ATOM	114	CB	GLN	L	17	24.776	29.775	103.318	1.00	17.40	L	C
	ATOM	115	CG	GLN	L	17	24.867	31.111	104.106	1.00	10.18	L	C
	ATOM	116	CD	GLN	L	17	24.584	30.902	105.540	1.00	17.90	L	C
60	ATOM	117	OE1	GLN	L	17	23.622	30.187	105.905	1.00	24.84	L	O
	ATOM	118	NE2	GLN	L	17	25.401	31.478	106.386	1.00	4.74	L	N

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ATOM	119	N	ARG	L	18	26.409	27.763	101.953	1.00	13.19	L	N
ATOM	120	CA	ARG	L	18	26.663	26.389	101.515	1.00	15.63	L	C
ATOM	121	C	ARG	L	18	25.833	25.437	102.374	1.00	15.34	L	C
ATOM	122	O	ARG	L	18	25.746	25.619	103.595	1.00	19.40	L	O
ATOM	123	CB	ARG	L	18	28.182	26.066	101.682	1.00	15.02	L	C
ATOM	124	CG	ARG	L	18	28.483	24.566	101.572	1.00	25.18	L	C
ATOM	125	CD	ARG	L	18	29.800	24.166	102.211	1.00	39.56	L	C
ATOM	126	NE	ARG	L	18	30.938	24.654	101.453	1.00	64.48	L	N
ATOM	127	CZ	ARG	L	18	31.436	25.885	101.533	1.00	79.37	L	C
ATOM	128	NH1	ARG	L	18	30.897	26.777	102.353	1.00	86.83	L	N
ATOM	129	NH2	ARG	L	18	32.488	26.225	100.788	1.00	82.59	L	N
ATOM	130	N	ALA	L	19	25.262	24.396	101.752	1.00	17.11	L	N
ATOM	131	CA	ALA	L	19	24.505	23.379	102.489	1.00	12.89	L	C
ATOM	132	C	ALA	L	19	25.198	22.031	102.204	1.00	16.54	L	C
ATOM	133	O	ALA	L	19	25.483	21.713	101.026	1.00	22.79	L	O
ATOM	134	CB	ALA	L	19	23.054	23.294	101.953	1.00	14.85	L	C
ATOM	135	N	THR	L	20	25.476	21.265	103.249	1.00	14.17	L	N
ATOM	136	CA	THR	L	20	26.096	19.960	103.054	1.00	15.56	L	C
ATOM	137	C	THR	L	20	25.227	18.934	103.752	1.00	15.65	L	C
ATOM	138	O	THR	L	20	24.813	19.126	104.923	1.00	20.89	L	O
ATOM	139	CB	THR	L	20	27.533	19.985	103.630	1.00	17.90	L	C
ATOM	140	OG1	THR	L	20	28.291	20.901	102.832	1.00	23.27	L	O
ATOM	141	CG2	THR	L	20	28.202	18.608	103.594	1.00	20.09	L	C
ATOM	142	N	ILE	L	21	24.896	17.877	103.035	1.00	14.46	L	N
ATOM	143	CA	ILE	L	21	24.066	16.841	103.610	1.00	18.34	L	C
ATOM	144	C	ILE	L	21	24.760	15.504	103.500	1.00	17.57	L	C
ATOM	145	O	ILE	L	21	25.495	15.251	102.542	1.00	18.26	L	O
ATOM	146	CB	ILE	L	21	22.648	16.809	103.010	1.00	19.09	L	C
ATOM	147	CG1	ILE	L	21	22.648	16.401	101.575	1.00	29.56	L	C
ATOM	148	CG2	ILE	L	21	21.985	18.173	103.154	1.00	23.73	L	C
ATOM	149	CD1	ILE	L	21	21.219	16.545	100.967	1.00	37.88	L	C
ATOM	150	N	SER	L	22	24.559	14.651	104.492	1.00	15.94	L	N
ATOM	151	CA	SER	L	22	25.286	13.391	104.429	1.00	20.98	L	C
ATOM	152	C	SER	L	22	24.467	12.148	104.321	1.00	18.51	L	C
ATOM	153	O	SER	L	22	23.269	12.123	104.622	1.00	20.37	L	O
ATOM	154	CB	SER	L	22	26.244	13.290	105.598	1.00	17.26	L	C
ATOM	155	OG	SER	L	22	25.516	13.126	106.775	1.00	38.04	L	O
ATOM	156	N	CYS	L	23	25.107	11.099	103.822	1.00	15.15	L	N
ATOM	157	CA	CYS	L	23	24.383	9.833	103.656	1.00	19.93	L	C
ATOM	158	C	CYS	L	23	25.370	8.749	104.099	1.00	19.09	L	C
ATOM	159	O	CYS	L	23	26.497	8.706	103.609	1.00	24.06	L	O
ATOM	160	CB	CYS	L	23	24.047	9.641	102.175	1.00	18.33	L	C
ATOM	161	SG	CYS	L	23	23.310	8.045	101.699	1.00	19.01	L	S
ATOM	162	N	LYS	L	24	24.961	7.869	105.013	1.00	19.81	L	N
ATOM	163	CA	LYS	L	24	25.876	6.835	105.490	1.00	21.44	L	C
ATOM	164	C	LYS	L	24	25.312	5.482	105.148	1.00	19.45	L	C
ATOM	165	O	LYS	L	24	24.168	5.216	105.416	1.00	17.29	L	O
ATOM	166	CB	LYS	L	24	26.089	6.960	107.018	1.00	20.14	L	C
ATOM	167	CG	LYS	L	24	26.987	5.848	107.576	1.00	38.35	L	C
ATOM	168	CD	LYS	L	24	27.320	6.037	109.086	1.00	55.69	L	C
ATOM	169	CE	LYS	L	24	28.358	7.158	109.343	1.00	65.78	L	C
ATOM	170	NZ	LYS	L	24	27.749	8.535	109.135	1.00	73.97	L	N
ATOM	171	N	ALA	L	25	26.122	4.613	104.564	1.00	16.58	L	N
ATOM	172	CA	ALA	L	25	25.595	3.290	104.192	1.00	20.95	L	C
ATOM	173	C	ALA	L	25	26.021	2.214	105.224	1.00	20.06	L	C
ATOM	174	O	ALA	L	25	27.130	2.293	105.753	1.00	21.66	L	O
ATOM	175	CB	ALA	L	25	26.141	2.885	102.822	1.00	16.44	L	C
ATOM	176	N	SER	L	26	25.176	1.214	105.434	1.00	20.89	L	N
ATOM	177	CA	SER	L	26	25.502	0.134	106.403	1.00	24.53	L	C
ATOM	178	C	SER	L	26	26.614	-0.805	105.917	1.00	24.48	L	C
ATOM	179	O	SER	L	26	27.258	-1.521	106.720	1.00	25.97	L	O

	ATOM	180	CB	SER	L	26	24.234	-0.680	106.758	1.00	20.85	L	C
	ATOM	181	OG	SER	L	26	23.577	-1.189	105.615	1.00	24.47	L	O
	ATOM	182	N	GLU	L	27	26.848	-0.797	104.598	1.00	25.23	L	N
	ATOM	183	CA	GLU	L	27	27.889	-1.606	103.971	1.00	22.24	L	C
5	ATOM	184	C	GLU	L	27	28.484	-0.723	102.886	1.00	22.04	L	C
	ATOM	185	O	GLU	L	27	27.831	0.237	102.428	1.00	25.83	L	O
	ATOM	186	CB	GLU	L	27	27.293	-2.881	103.288	1.00	16.57	L	C
	ATOM	187	CG	GLU	L	27	26.251	-3.624	104.048	1.00	17.06	L	C
	ATOM	188	CD	GLU	L	27	25.816	-4.858	103.275	1.00	25.63	L	C
10	ATOM	189	OE1	GLU	L	27	24.831	-5.516	103.672	1.00	18.33	L	O
	ATOM	190	OE2	GLU	L	27	26.515	-5.132	102.264	1.00	23.85	L	O
	ATOM	191	N	SER	L	28	29.698	-1.029	102.455	1.00	23.92	L	N
	ATOM	192	CA	SER	L	28	30.355	-0.237	101.412	1.00	20.04	L	C
	ATOM	193	C	SER	L	28	29.562	-0.293	100.128	1.00	21.07	L	C
15	ATOM	194	O	SER	L	28	28.967	-1.329	99.782	1.00	23.98	L	O
	ATOM	195	CB	SER	L	28	31.779	-0.778	101.121	1.00	18.95	L	C
	ATOM	196	OG	SER	L	28	32.408	-0.078	100.037	1.00	28.13	L	O
	ATOM	197	N	VAL	L	29	29.570	0.798	99.383	1.00	18.22	L	N
	ATOM	198	CA	VAL	L	29	28.829	0.788	98.103	1.00	17.79	L	C
20	ATOM	199	C	VAL	L	29	29.840	0.937	96.981	1.00	19.59	L	C
	ATOM	200	O	VAL	L	29	29.465	1.207	95.837	1.00	22.01	L	O
	ATOM	201	CB	VAL	L	29	27.766	1.940	98.010	1.00	17.51	L	C
	ATOM	202	CG1	VAL	L	29	26.675	1.740	99.072	1.00	12.98	L	C
	ATOM	203	CG2	VAL	L	29	28.441	3.326	98.172	1.00	16.63	L	C
25	ATOM	204	N	ASP	L	30	31.127	0.708	97.279	1.00	17.33	L	N
	ATOM	205	CA	ASP	L	30	32.178	0.849	96.268	1.00	18.23	L	C
	ATOM	206	C	ASP	L	30	32.339	-0.453	95.497	1.00	19.53	L	C
	ATOM	207	O	ASP	L	30	32.219	-1.559	96.071	1.00	26.39	L	O
	ATOM	208	CB	ASP	L	30	33.534	1.153	96.908	1.00	12.12	L	C
30	ATOM	209	CG	ASP	L	30	33.662	2.592	97.326	1.00	22.31	L	C
	ATOM	210	OD1	ASP	L	30	34.761	2.975	97.764	1.00	29.89	L	O
	ATOM	211	OD2	ASP	L	30	32.676	3.331	97.208	1.00	18.13	L	O
	ATOM	212	N	ASN	L	30A	32.617	-0.316	94.206	1.00	20.90	L	N
	ATOM	213	CA	ASN	L	30A	32.797	-1.499	93.344	1.00	22.44	L	C
35	ATOM	214	C	ASN	L	30A	34.090	-1.203	92.623	1.00	23.21	L	C
	ATOM	215	O	ASN	L	30A	34.141	-0.339	91.735	1.00	25.31	L	O
	ATOM	216	CB	ASN	L	30A	31.693	-1.594	92.283	1.00	20.72	L	C
	ATOM	217	CG	ASN	L	30A	31.884	-2.785	91.384	1.00	24.84	L	C
	ATOM	218	OD1	ASN	L	30A	31.800	-3.934	91.852	1.00	24.37	L	O
40	ATOM	219	ND2	ASN	L	30A	32.149	-2.530	90.071	1.00	23.26	L	N
	ATOM	220	N	TYR	L	30B	35.161	-1.861	93.051	1.00	23.88	L	N
	ATOM	221	CA	TYR	L	30B	36.460	-1.652	92.445	1.00	21.04	L	C
	ATOM	222	C	TYR	L	30B	36.823	-0.230	92.173	1.00	18.95	L	C
	ATOM	223	O	TYR	L	30B	37.123	0.166	91.038	1.00	21.35	L	O
45	ATOM	224	CB	TYR	L	30B	36.567	-2.494	91.176	1.00	19.64	L	C
	ATOM	225	CG	TYR	L	30B	36.520	-3.965	91.534	1.00	26.67	L	C
	ATOM	226	CD1	TYR	L	30B	37.580	-4.556	92.215	1.00	17.83	L	C
	ATOM	227	CD2	TYR	L	30B	35.427	-4.754	91.211	1.00	30.04	L	C
	ATOM	228	CE1	TYR	L	30B	37.542	-5.890	92.556	1.00	28.99	L	C
50	ATOM	229	CE2	TYR	L	30B	35.375	-6.104	91.553	1.00	38.10	L	C
	ATOM	230	CZ	TYR	L	30B	36.445	-6.657	92.229	1.00	32.14	L	C
	ATOM	231	OH	TYR	L	30B	36.429	-7.974	92.591	1.00	34.61	L	O
	ATOM	232	N	GLY	L	30C	36.774	0.560	93.236	1.00	20.14	L	N
	ATOM	233	CA	GLY	L	30C	37.178	1.951	93.126	1.00	21.20	L	C
55	ATOM	234	C	GLY	L	30C	36.101	2.933	92.676	1.00	25.36	L	C
	ATOM	235	O	GLY	L	30C	36.355	4.122	92.635	1.00	29.51	L	O
	ATOM	236	N	LYS	L	30D	34.925	2.437	92.306	1.00	22.83	L	N
	ATOM	237	CA	LYS	L	30D	33.833	3.328	91.845	1.00	23.04	L	C
	ATOM	238	C	LYS	L	30D	32.767	3.306	92.943	1.00	22.36	L	C
60	ATOM	239	O	LYS	L	30D	32.407	2.230	93.382	1.00	17.33	L	O
	ATOM	240	CB	LYS	L	30D	33.195	2.807	90.554	1.00	24.66	L	C

	ATOM	241	CG	LYS	L	30D	33.949	3.156	89.277	1.00	29.64	L	C
	ATOM	242	CD	LYS	L	30D	35.097	2.195	88.997	1.00	26.58	L	C
	ATOM	243	CE	LYS	L	30D	34.641	0.783	88.732	1.00	21.88	L	C
	ATOM	244	NZ	LYS	L	30D	35.869	-0.054	88.518	1.00	25.71	L	N
5	ATOM	245	N	SER	L	31	32.263	4.488	93.362	1.00	16.41	L	N
	ATOM	246	CA	SER	L	31	31.266	4.493	94.450	1.00	14.47	L	C
	ATOM	247	C	SER	L	31	29.876	4.552	93.817	1.00	12.87	L	C
	ATOM	248	O	SER	L	31	29.559	5.508	93.135	1.00	17.73	L	O
	ATOM	249	CB	SER	L	31	31.528	5.718	95.369	1.00	13.31	L	C
10	ATOM	250	OG	SER	L	31	32.772	5.543	96.018	1.00	9.74	L	O
	ATOM	251	N	LEU	L	32	29.068	3.533	94.047	1.00	14.84	L	N
	ATOM	252	CA	LEU	L	32	27.737	3.444	93.414	1.00	15.21	L	C
	ATOM	253	C	LEU	L	32	26.661	4.109	94.271	1.00	15.33	L	C
	ATOM	254	O	LEU	L	32	25.759	3.444	94.743	1.00	15.90	L	O
15	ATOM	255	CB	LEU	L	32	27.410	1.946	93.122	1.00	14.19	L	C
	ATOM	256	CG	LEU	L	32	28.528	1.268	92.240	1.00	16.68	L	C
	ATOM	257	CD1	LEU	L	32	28.098	-0.113	91.812	1.00	19.02	L	C
	ATOM	258	CD2	LEU	L	32	28.841	2.115	90.956	1.00	16.75	L	C
	ATOM	259	N	MET	L	33	26.805	5.422	94.446	1.00	15.14	L	N
20	ATOM	260	CA	MET	L	33	25.858	6.243	95.228	1.00	15.51	L	C
	ATOM	261	C	MET	L	33	25.424	7.400	94.306	1.00	14.12	L	C
	ATOM	262	O	MET	L	33	26.268	8.060	93.664	1.00	14.69	L	O
	ATOM	263	CB	MET	L	33	26.522	6.857	96.482	1.00	16.89	L	C
	ATOM	264	CG	MET	L	33	25.438	7.575	97.437	1.00	11.58	L	C
25	ATOM	265	SD	MET	L	33	24.457	6.317	98.203	1.00	25.28	L	S
	ATOM	266	CE	MET	L	33	25.482	5.831	99.589	1.00	11.25	L	C
	ATOM	267	N	HIS	L	34	24.114	7.621	94.239	1.00	11.24	L	N
	ATOM	268	CA	HIS	L	34	23.566	8.649	93.369	1.00	10.81	L	C
	ATOM	269	C	HIS	L	34	22.672	9.529	94.235	1.00	13.28	L	C
30	ATOM	270	O	HIS	L	34	22.163	9.062	95.283	1.00	7.46	L	O
	ATOM	271	CB	HIS	L	34	22.709	7.988	92.278	1.00	9.21	L	C
	ATOM	272	CG	HIS	L	34	23.392	6.816	91.619	1.00	19.51	L	C
	ATOM	273	ND1	HIS	L	34	24.568	6.950	90.896	1.00	18.89	L	N
	ATOM	274	CD2	HIS	L	34	23.061	5.501	91.562	1.00	19.95	L	C
35	ATOM	275	CE1	HIS	L	34	24.932	5.770	90.429	1.00	8.56	L	C
	ATOM	276	NE2	HIS	L	34	24.037	4.874	90.815	1.00	18.35	L	N
	ATOM	277	N	TRP	L	35	22.478	10.770	93.806	1.00	11.97	L	N
	ATOM	278	CA	TRP	L	35	21.658	11.731	94.603	1.00	14.22	L	C
	ATOM	279	C	TRP	L	35	20.557	12.321	93.730	1.00	14.57	L	C
40	ATOM	280	O	TRP	L	35	20.793	12.665	92.577	1.00	13.68	L	O
	ATOM	281	CB	TRP	L	35	22.525	12.914	95.123	1.00	12.34	L	C
	ATOM	282	CG	TRP	L	35	23.529	12.532	96.148	1.00	18.11	L	C
	ATOM	283	CD1	TRP	L	35	24.842	12.167	95.941	1.00	13.80	L	C
	ATOM	284	CD2	TRP	L	35	23.346	12.610	97.560	1.00	15.53	L	C
45	ATOM	285	NE1	TRP	L	35	25.491	12.027	97.158	1.00	7.32	L	N
	ATOM	286	CE2	TRP	L	35	24.588	12.302	98.164	1.00	10.41	L	C
	ATOM	287	CE3	TRP	L	35	22.242	12.928	98.381	1.00	22.77	L	C
	ATOM	288	CZ2	TRP	L	35	24.756	12.300	99.551	1.00	16.39	L	C
	ATOM	289	CZ3	TRP	L	35	22.396	12.933	99.730	1.00	10.74	L	C
50	ATOM	290	CH2	TRP	L	35	23.643	12.622	100.320	1.00	11.41	L	C
	ATOM	291	N	TYR	L	36	19.362	12.470	94.306	1.00	13.73	L	N
	ATOM	292	CA	TYR	L	36	18.212	13.005	93.593	1.00	13.32	L	C
	ATOM	293	C	TYR	L	36	17.614	14.178	94.360	1.00	12.87	L	C
	ATOM	294	O	TYR	L	36	17.681	14.233	95.579	1.00	11.74	L	O
55	ATOM	295	CB	TYR	L	36	17.081	11.942	93.464	1.00	13.04	L	C
	ATOM	296	CG	TYR	L	36	17.545	10.667	92.771	1.00	11.47	L	C
	ATOM	297	CD1	TYR	L	36	18.207	9.660	93.488	1.00	9.50	L	C
	ATOM	298	CD2	TYR	L	36	17.398	10.526	91.391	1.00	12.45	L	C
	ATOM	299	CE1	TYR	L	36	18.739	8.534	92.820	1.00	12.96	L	C
60	ATOM	300	CE2	TYR	L	36	17.907	9.414	90.729	1.00	10.42	L	C
	ATOM	301	CZ	TYR	L	36	18.578	8.436	91.445	1.00	12.56	L	C

	ATOM	302	OH	TYR	L	36	19.180	7.385	90.768	1.00	13.38	L	O
	ATOM	303	N	GLN	L	37	16.981	15.072	93.620	1.00	10.25	L	N
	ATOM	304	CA	GLN	L	37	16.254	16.180	94.252	1.00	11.70	L	C
	ATOM	305	C	GLN	L	37	14.783	15.956	93.941	1.00	13.16	L	C
5	ATOM	306	O	GLN	L	37	14.444	15.606	92.794	1.00	17.26	L	O
	ATOM	307	CB	GLN	L	37	16.649	17.515	93.600	1.00	10.59	L	C
	ATOM	308	CG	GLN	L	37	15.845	18.749	94.028	1.00	10.72	L	C
	ATOM	309	CD	GLN	L	37	16.206	19.926	93.103	1.00	15.26	L	C
	ATOM	310	OE1	GLN	L	37	15.916	19.885	91.887	1.00	16.02	L	O
10	ATOM	311	NE2	GLN	L	37	16.857	20.947	93.659	1.00	13.48	L	N
	ATOM	312	N	GLN	L	38	13.916	16.212	94.921	1.00	17.77	L	N
	ATOM	313	CA	GLN	L	38	12.470	16.140	94.680	1.00	20.77	L	C
	ATOM	314	C	GLN	L	38	11.804	17.343	95.326	1.00	21.40	L	C
	ATOM	315	O	GLN	L	38	11.828	17.509	96.563	1.00	22.63	L	O
15	ATOM	316	CB	GLN	L	38	11.835	14.901	95.313	1.00	19.42	L	C
	ATOM	317	CG	GLN	L	38	10.354	14.805	94.968	1.00	13.86	L	C
	ATOM	318	CD	GLN	L	38	9.748	13.498	95.491	1.00	19.68	L	C
	ATOM	319	OE1	GLN	L	38	10.122	13.011	96.545	1.00	14.26	L	O
	ATOM	320	NE2	GLN	L	38	8.834	12.935	94.726	1.00	19.99	L	N
20	ATOM	321	N	LYS	L	39	11.254	18.170	94.457	1.00	24.73	L	N
	ATOM	322	CA	LYS	L	39	10.505	19.355	94.879	1.00	26.95	L	C
	ATOM	323	C	LYS	L	39	9.047	18.965	95.083	1.00	31.28	L	C
	ATOM	324	O	LYS	L	39	8.492	18.004	94.493	1.00	27.67	L	O
	ATOM	325	CB	LYS	L	39	10.624	20.467	93.817	1.00	25.37	L	C
25	ATOM	326	CG	LYS	L	39	12.024	20.994	93.607	1.00	28.24	L	C
	ATOM	327	CD	LYS	L	39	12.109	21.962	92.440	1.00	25.89	L	C
	ATOM	328	CE	LYS	L	39	13.525	22.460	92.197	1.00	41.55	L	C
	ATOM	329	NZ	LYS	L	39	13.723	23.040	90.805	1.00	39.62	L	N
	ATOM	330	N	PRO	L	40	8.384	19.708	95.969	1.00	37.71	L	N
30	ATOM	331	CA	PRO	L	40	6.984	19.511	96.310	1.00	40.24	L	C
	ATOM	332	C	PRO	L	40	6.129	19.315	95.045	1.00	37.39	L	C
	ATOM	333	O	PRO	L	40	6.226	20.104	94.122	1.00	35.53	L	O
	ATOM	334	CB	PRO	L	40	6.637	20.819	97.036	1.00	44.21	L	C
	ATOM	335	CG	PRO	L	40	7.926	21.168	97.729	1.00	42.86	L	C
35	ATOM	336	CD	PRO	L	40	8.954	20.888	96.653	1.00	39.12	L	C
	ATOM	337	N	GLY	L	41	5.363	18.230	95.002	1.00	36.74	L	N
	ATOM	338	CA	GLY	L	41	4.506	17.946	93.862	1.00	36.85	L	C
	ATOM	339	C	GLY	L	41	5.202	17.572	92.568	1.00	35.88	L	C
	ATOM	340	O	GLY	L	41	4.576	17.503	91.523	1.00	35.09	L	O
40	ATOM	341	N	GLN	L	42	6.510	17.325	92.626	1.00	35.27	L	N
	ATOM	342	CA	GLN	L	42	7.237	16.955	91.424	1.00	28.24	L	C
	ATOM	343	C	GLN	L	42	7.856	15.584	91.607	1.00	25.86	L	C
	ATOM	344	O	GLN	L	42	7.921	15.047	92.697	1.00	25.25	L	O
	ATOM	345	CB	GLN	L	42	8.386	17.959	91.124	1.00	29.72	L	C
45	ATOM	346	CG	GLN	L	42	7.950	19.357	90.729	1.00	34.63	L	C
	ATOM	347	CD	GLN	L	42	9.127	20.234	90.242	1.00	45.60	L	C
	ATOM	348	OE1	GLN	L	42	8.965	21.421	90.002	1.00	50.47	L	O
	ATOM	349	NE2	GLN	L	42	10.303	19.639	90.094	1.00	47.27	L	N
	ATOM	350	N	SER	L	43	8.340	15.026	90.506	1.00	22.44	L	N
50	ATOM	351	CA	SER	L	43	8.985	13.744	90.587	1.00	23.17	L	C
	ATOM	352	C	SER	L	43	10.490	13.988	90.930	1.00	21.02	L	C
	ATOM	353	O	SER	L	43	10.986	15.104	90.802	1.00	19.00	L	O
	ATOM	354	CB	SER	L	43	8.831	13.041	89.213	1.00	24.31	L	C
	ATOM	355	OG	SER	L	43	9.851	13.443	88.334	1.00	31.71	L	O
55	ATOM	356	N	PRO	L	44	11.186	12.953	91.401	1.00	19.03	L	N
	ATOM	357	CA	PRO	L	44	12.619	13.056	91.738	1.00	19.57	L	C
	ATOM	358	C	PRO	L	44	13.403	13.344	90.454	1.00	19.17	L	C
	ATOM	359	O	PRO	L	44	12.971	12.997	89.339	1.00	17.27	L	O
	ATOM	360	CB	PRO	L	44	12.963	11.675	92.304	1.00	20.33	L	C
60	ATOM	361	CG	PRO	L	44	11.568	11.163	92.901	1.00	14.26	L	C
	ATOM	362	CD	PRO	L	44	10.630	11.645	91.786	1.00	17.98	L	C

	ATOM	363	N	ALA	L	45	14.576	13.942	90.603	1.00	14.94	L	N
	ATOM	364	CA	ALA	L	45	15.400	14.217	89.428	1.00	15.76	L	C
	ATOM	365	C	ALA	L	45	16.833	13.921	89.846	1.00	15.71	L	C
	ATOM	366	O	ALA	L	45	17.287	14.318	90.927	1.00	14.34	L	O
5	ATOM	367	CB	ALA	L	45	15.300	15.702	89.000	1.00	17.79	L	C
	ATOM	368	N	LEU	L	46	17.545	13.285	88.948	1.00	15.14	L	N
	ATOM	369	CA	LEU	L	46	18.948	12.903	89.212	1.00	11.85	L	C
	ATOM	370	C	LEU	L	46	19.841	14.154	89.206	1.00	12.85	L	C
	ATOM	371	O	LEU	L	46	19.825	14.944	88.247	1.00	12.83	L	O
10	ATOM	372	CB	LEU	L	46	19.416	11.894	88.107	1.00	9.18	L	C
	ATOM	373	CG	LEU	L	46	20.875	11.408	88.320	1.00	8.52	L	C
	ATOM	374	CD1	LEU	L	46	21.074	10.591	89.660	1.00	8.06	L	C
	ATOM	375	CD2	LEU	L	46	21.269	10.533	87.111	1.00	7.61	L	C
	ATOM	376	N	LEU	L	47	20.630	14.323	90.277	1.00	11.81	L	N
15	ATOM	377	CA	LEU	L	47	21.578	15.439	90.384	1.00	11.37	L	C
	ATOM	378	C	LEU	L	47	23.038	15.014	90.150	1.00	11.22	L	C
	ATOM	379	O	LEU	L	47	23.774	15.649	89.393	1.00	13.32	L	O
	ATOM	380	CB	LEU	L	47	21.556	15.997	91.789	1.00	11.40	L	C
	ATOM	381	CG	LEU	L	47	20.215	16.587	92.289	1.00	11.75	L	C
20	ATOM	382	CD1	LEU	L	47	20.362	16.812	93.810	1.00	11.87	L	C
	ATOM	383	CD2	LEU	L	47	19.911	17.879	91.522	1.00	4.80	L	C
	ATOM	384	N	ILE	L	48	23.422	13.952	90.856	1.00	12.53	L	N
	ATOM	385	CA	ILE	L	48	24.800	13.468	90.883	1.00	10.52	L	C
	ATOM	386	C	ILE	L	48	24.821	11.953	90.754	1.00	14.33	L	C
25	ATOM	387	O	ILE	L	48	24.066	11.263	91.443	1.00	16.13	L	O
	ATOM	388	CB	ILE	L	48	25.444	13.826	92.281	1.00	11.93	L	C
	ATOM	389	CG1	ILE	L	48	25.465	15.351	92.495	1.00	9.28	L	C
	ATOM	390	CG2	ILE	L	48	26.842	13.136	92.431	1.00	11.58	L	C
	ATOM	391	CD1	ILE	L	48	26.422	16.165	91.519	1.00	14.29	L	C
30	ATOM	392	N	TYR	L	49	25.651	11.424	89.860	1.00	12.80	L	N
	ATOM	393	CA	TYR	L	49	25.698	9.977	89.790	1.00	14.45	L	C
	ATOM	394	C	TYR	L	49	27.118	9.484	90.107	1.00	13.75	L	C
	ATOM	395	O	TYR	L	49	28.114	10.177	89.869	1.00	14.87	L	O
	ATOM	396	CB	TYR	L	49	25.223	9.449	88.419	1.00	6.50	L	C
35	ATOM	397	CG	TYR	L	49	26.079	9.899	87.246	1.00	14.44	L	C
	ATOM	398	CD1	TYR	L	49	27.100	9.105	86.733	1.00	9.63	L	C
	ATOM	399	CD2	TYR	L	49	25.840	11.131	86.646	1.00	20.17	L	C
	ATOM	400	CE1	TYR	L	49	27.876	9.531	85.632	1.00	18.33	L	C
	ATOM	401	CE2	TYR	L	49	26.620	11.584	85.542	1.00	22.28	L	C
40	ATOM	402	CZ	TYR	L	49	27.624	10.778	85.049	1.00	20.57	L	C
	ATOM	403	OH	TYR	L	49	28.372	11.257	83.987	1.00	19.11	L	O
	ATOM	404	N	ARG	L	50	27.176	8.279	90.648	1.00	14.11	L	N
	ATOM	405	CA	ARG	L	50	28.461	7.617	90.962	1.00	16.52	L	C
	ATOM	406	C	ARG	L	50	29.311	8.530	91.871	1.00	16.04	L	C
45	ATOM	407	O	ARG	L	50	30.480	8.795	91.583	1.00	14.95	L	O
	ATOM	408	CB	ARG	L	50	29.228	7.293	89.673	1.00	12.62	L	C
	ATOM	409	CG	ARG	L	50	30.084	5.998	89.784	1.00	15.10	L	C
	ATOM	410	CD	ARG	L	50	30.933	5.820	88.460	1.00	11.26	L	C
	ATOM	411	NE	ARG	L	50	30.073	5.942	87.252	1.00	23.52	L	N
50	ATOM	412	CZ	ARG	L	50	30.543	6.227	86.037	1.00	20.37	L	C
	ATOM	413	NH1	ARG	L	50	31.852	6.404	85.858	1.00	26.18	L	N
	ATOM	414	NH2	ARG	L	50	29.727	6.354	85.003	1.00	18.24	L	N
	ATOM	415	N	ALA	L	51	28.621	9.031	92.901	1.00	14.01	L	N
	ATOM	416	CA	ALA	L	51	29.125	9.886	93.975	1.00	14.19	L	C
55	ATOM	417	C	ALA	L	51	29.531	11.309	93.680	1.00	16.63	L	C
	ATOM	418	O	ALA	L	51	29.255	12.190	94.481	1.00	15.01	L	O
	ATOM	419	CB	ALA	L	51	30.288	9.177	94.727	1.00	6.77	L	C
	ATOM	420	N	SER	L	52	30.119	11.555	92.509	1.00	14.35	L	N
	ATOM	421	CA	SER	L	52	30.652	12.887	92.214	1.00	12.90	L	C
60	ATOM	422	C	SER	L	52	30.437	13.427	90.815	1.00	10.83	L	C
	ATOM	423	O	SER	L	52	30.884	14.542	90.504	1.00	9.89	L	O

	ATOM	424	CB	SER	L	52	32.179	12.851	92.476	1.00	5.64	L	C
	ATOM	425	OG	SER	L	52	32.747	11.797	91.672	1.00	19.18	L	O
	ATOM	426	N	ASN	L	53	29.747	12.677	89.962	1.00	10.80	L	N
	ATOM	427	CA	ASN	L	53	29.575	13.143	88.561	1.00	6.02	L	C
5	ATOM	428	C	ASN	L	53	28.301	13.953	88.439	1.00	13.29	L	C
	ATOM	429	O	ASN	L	53	27.228	13.468	88.813	1.00	15.20	L	O
	ATOM	430	CB	ASN	L	53	29.461	11.954	87.630	1.00	9.04	L	C
	ATOM	431	CG	ASN	L	53	30.756	11.172	87.594	1.00	15.97	L	C
	ATOM	432	OD1	ASN	L	53	31.787	11.705	87.178	1.00	24.43	L	O
10	ATOM	433	ND2	ASN	L	53	30.730	9.948	88.079	1.00	23.89	L	N
	ATOM	434	N	LEU	L	54	28.443	15.143	87.880	1.00	12.27	L	N
	ATOM	435	CA	LEU	L	54	27.296	16.075	87.725	1.00	11.19	L	C
	ATOM	436	C	LEU	L	54	26.438	15.659	86.539	1.00	13.26	L	C
	ATOM	437	O	LEU	L	54	26.928	15.572	85.400	1.00	17.40	L	O
15	ATOM	438	CB	LEU	L	54	27.866	17.498	87.499	1.00	9.35	L	C
	ATOM	439	CG	LEU	L	54	26.793	18.590	87.336	1.00	9.35	L	C
	ATOM	440	CD1	LEU	L	54	26.013	18.667	88.688	1.00	11.24	L	C
	ATOM	441	CD2	LEU	L	54	27.473	20.001	86.935	1.00	10.06	L	C
	ATOM	442	N	GLU	L	55	25.152	15.437	86.792	1.00	13.19	L	N
20	ATOM	443	CA	GLU	L	55	24.271	15.056	85.715	1.00	13.50	L	C
	ATOM	444	C	GLU	L	55	24.099	16.206	84.684	1.00	16.40	L	C
	ATOM	445	O	GLU	L	55	23.952	17.356	85.035	1.00	16.66	L	O
	ATOM	446	CB	GLU	L	55	22.935	14.633	86.323	1.00	17.40	L	C
	ATOM	447	CG	GLU	L	55	21.891	14.257	85.238	1.00	18.71	L	C
25	ATOM	448	CD	GLU	L	55	22.174	12.930	84.538	1.00	21.37	L	C
	ATOM	449	OE1	GLU	L	55	23.189	12.227	84.879	1.00	29.09	L	O
	ATOM	450	OE2	GLU	L	55	21.366	12.583	83.642	1.00	14.35	L	O
	ATOM	451	N	SER	L	56	24.141	15.873	83.390	1.00	18.45	L	N
	ATOM	452	CA	SER	L	56	23.959	16.910	82.370	1.00	21.02	L	C
30	ATOM	453	C	SER	L	56	22.660	17.692	82.628	1.00	20.45	L	C
	ATOM	454	O	SER	L	56	21.610	17.089	82.907	1.00	23.00	L	O
	ATOM	455	CB	SER	L	56	23.893	16.260	80.972	1.00	23.30	L	C
	ATOM	456	OG	SER	L	56	23.696	17.280	79.990	1.00	35.05	L	O
	ATOM	457	N	GLY	L	57	22.735	19.017	82.564	1.00	16.05	L	N
35	ATOM	458	CA	GLY	L	57	21.540	19.832	82.794	1.00	15.79	L	C
	ATOM	459	C	GLY	L	57	21.383	20.336	84.219	1.00	17.48	L	C
	ATOM	460	O	GLY	L	57	20.604	21.239	84.470	1.00	20.76	L	O
	ATOM	461	N	ILE	L	58	22.130	19.758	85.154	1.00	15.63	L	N
	ATOM	462	CA	ILE	L	58	22.077	20.199	86.559	1.00	13.54	L	C
40	ATOM	463	C	ILE	L	58	23.210	21.225	86.775	1.00	14.57	L	C
	ATOM	464	O	ILE	L	58	24.353	20.972	86.376	1.00	15.41	L	O
	ATOM	465	CB	ILE	L	58	22.321	18.985	87.479	1.00	16.14	L	C
	ATOM	466	CG1	ILE	L	58	21.248	17.925	87.205	1.00	10.84	L	C
	ATOM	467	CG2	ILE	L	58	22.293	19.433	88.957	1.00	14.42	L	C
45	ATOM	468	CD1	ILE	L	58	19.771	18.436	87.373	1.00	7.96	L	C
	ATOM	469	N	PRO	L	59	22.933	22.351	87.471	1.00	16.57	L	N
	ATOM	470	CA	PRO	L	59	24.011	23.324	87.650	1.00	15.02	L	C
	ATOM	471	C	PRO	L	59	25.127	22.857	88.586	1.00	17.68	L	C
	ATOM	472	O	PRO	L	59	24.888	22.119	89.551	1.00	20.81	L	O
50	ATOM	473	CB	PRO	L	59	23.296	24.567	88.181	1.00	13.09	L	C
	ATOM	474	CG	PRO	L	59	22.119	24.013	88.932	1.00	14.55	L	C
	ATOM	475	CD	PRO	L	59	21.702	22.766	88.166	1.00	16.37	L	C
	ATOM	476	N	ALA	L	60	26.342	23.352	88.335	1.00	15.03	L	N
	ATOM	477	CA	ALA	L	60	27.482	22.936	89.141	1.00	15.80	L	C
55	ATOM	478	C	ALA	L	60	27.443	23.436	90.588	1.00	16.37	L	C
	ATOM	479	O	ALA	L	60	28.370	23.164	91.349	1.00	14.10	L	O
	ATOM	480	CB	ALA	L	60	28.828	23.389	88.439	1.00	19.03	L	C
	ATOM	481	N	ARG	L	61	26.382	24.141	90.979	1.00	13.86	L	N
	ATOM	482	CA	ARG	L	61	26.259	24.485	92.408	1.00	12.66	L	C
60	ATOM	483	C	ARG	L	61	26.076	23.171	93.224	1.00	13.33	L	C
	ATOM	484	O	ARG	L	61	26.222	23.166	94.448	1.00	11.62	L	O

ATOM	485	CB	ARG	L	61	25.015	25.355	92.610	1.00	10.50	L	C
ATOM	486	CG	ARG	L	61	24.958	26.567	91.634	1.00	21.56	L	C
ATOM	487	CD	ARG	L	61	23.759	27.528	91.982	1.00	34.92	L	C
ATOM	488	NE	ARG	L	61	22.428	27.036	91.558	1.00	20.51	L	N
ATOM	489	CZ	ARG	L	61	21.594	26.438	92.405	1.00	19.50	L	C
ATOM	490	NH1	ARG	L	61	21.952	26.279	93.670	1.00	20.76	L	N
ATOM	491	NH2	ARG	L	61	20.455	25.955	91.970	1.00	18.94	L	N
ATOM	492	N	PHE	L	62	25.682	22.086	92.546	1.00	11.06	L	N
ATOM	493	CA	PHE	L	62	25.545	20.771	93.174	1.00	13.46	L	C
ATOM	494	C	PHE	L	62	26.816	19.968	92.950	1.00	14.58	L	C
ATOM	495	O	PHE	L	62	27.282	19.875	91.818	1.00	14.64	L	O
ATOM	496	CB	PHE	L	62	24.378	19.988	92.507	1.00	10.25	L	C
ATOM	497	CG	PHE	L	62	23.019	20.612	92.793	1.00	11.04	L	C
ATOM	498	CD1	PHE	L	62	22.359	20.344	94.005	1.00	14.57	L	C
ATOM	499	CD2	PHE	L	62	22.478	21.533	91.929	1.00	11.67	L	C
ATOM	500	CE1	PHE	L	62	21.175	20.994	94.343	1.00	9.15	L	C
ATOM	501	CE2	PHE	L	62	21.248	22.220	92.278	1.00	5.02	L	C
ATOM	502	CZ	PHE	L	62	20.631	21.932	93.480	1.00	15.51	L	C
ATOM	503	N	SER	L	63	27.354	19.375	94.000	1.00	13.28	L	N
ATOM	504	CA	SER	L	63	28.542	18.518	93.801	1.00	16.69	L	C
ATOM	505	C	SER	L	63	28.450	17.384	94.817	1.00	16.93	L	C
ATOM	506	O	SER	L	63	27.740	17.512	95.803	1.00	13.99	L	O
ATOM	507	CB	SER	L	63	29.841	19.326	94.051	1.00	20.80	L	C
ATOM	508	OG	SER	L	63	29.864	19.821	95.383	1.00	15.22	L	O
ATOM	509	N	GLY	L	64	29.176	16.290	94.592	1.00	15.15	L	N
ATOM	510	CA	GLY	L	64	29.112	15.214	95.559	1.00	12.85	L	C
ATOM	511	C	GLY	L	64	30.474	14.689	95.846	1.00	17.05	L	C
ATOM	512	O	GLY	L	64	31.363	14.813	94.995	1.00	20.04	L	O
ATOM	513	N	SER	L	65	30.657	14.097	97.031	1.00	14.74	L	N
ATOM	514	CA	SER	L	65	31.927	13.486	97.361	1.00	17.90	L	C
ATOM	515	C	SER	L	65	31.709	12.310	98.326	1.00	15.64	L	C
ATOM	516	O	SER	L	65	30.597	12.056	98.752	1.00	10.29	L	O
ATOM	517	CB	SER	L	65	32.914	14.491	98.011	1.00	17.37	L	C
ATOM	518	OG	SER	L	65	32.304	14.967	99.193	1.00	31.08	L	O
ATOM	519	N	GLY	L	66	32.795	11.582	98.630	1.00	17.49	L	N
ATOM	520	CA	GLY	L	66	32.711	10.462	99.551	1.00	12.08	L	C
ATOM	521	C	GLY	L	66	33.145	9.168	98.886	1.00	17.57	L	C
ATOM	522	O	GLY	L	66	33.445	9.144	97.696	1.00	20.81	L	O
ATOM	523	N	SER	L	67	33.215	8.099	99.673	1.00	17.22	L	N
ATOM	524	CA	SER	L	67	33.591	6.784	99.170	1.00	17.33	L	C
ATOM	525	C	SER	L	67	33.241	5.817	100.287	1.00	18.00	L	C
ATOM	526	O	SER	L	67	32.990	6.220	101.444	1.00	16.60	L	O
ATOM	527	CB	SER	L	67	35.103	6.694	98.886	1.00	14.43	L	C
ATOM	528	OG	SER	L	67	35.792	6.817	100.136	1.00	15.13	L	O
ATOM	529	N	ARG	L	68	33.193	4.550	99.906	1.00	18.02	L	N
ATOM	530	CA	ARG	L	68	32.875	3.463	100.793	1.00	21.90	L	C
ATOM	531	C	ARG	L	68	31.494	3.545	101.440	1.00	23.10	L	C
ATOM	532	O	ARG	L	68	30.486	3.175	100.813	1.00	22.85	L	O
ATOM	533	CB	ARG	L	68	34.003	3.352	101.843	1.00	22.76	L	C
ATOM	534	CG	ARG	L	68	35.389	3.070	101.227	1.00	26.60	L	C
ATOM	535	CD	ARG	L	68	36.416	2.896	102.374	1.00	48.13	L	C
ATOM	536	NE	ARG	L	68	37.790	3.179	101.986	1.00	67.04	L	N
ATOM	537	CZ	ARG	L	68	38.466	4.289	102.301	1.00	77.72	L	C
ATOM	538	NH1	ARG	L	68	37.902	5.257	103.019	1.00	74.08	L	N
ATOM	539	NH2	ARG	L	68	39.737	4.417	101.918	1.00	83.92	L	N
ATOM	540	N	THR	L	69	31.431	4.023	102.691	1.00	24.77	L	N
ATOM	541	CA	THR	L	69	30.144	4.114	103.374	1.00	27.13	L	C
ATOM	542	C	THR	L	69	29.698	5.545	103.712	1.00	26.51	L	C
ATOM	543	O	THR	L	69	28.592	5.726	104.182	1.00	28.14	L	O
ATOM	544	CB	THR	L	69	30.158	3.306	104.710	1.00	26.91	L	C
ATOM	545	OG1	THR	L	69	31.166	3.856	105.554	1.00	27.96	L	O

	ATOM	546	CG2	THR	L	69	30.523	1.820	104.424	1.00	25.31	L	C
	ATOM	547	N	ASP	L	70	30.517	6.552	103.434	1.00	20.56	L	N
	ATOM	548	CA	ASP	L	70	30.158	7.926	103.803	1.00	22.63	L	C
	ATOM	549	C	ASP	L	70	30.238	8.863	102.615	1.00	20.68	L	C
5	ATOM	550	O	ASP	L	70	31.290	9.031	102.016	1.00	26.56	L	O
	ATOM	551	CB	ASP	L	70	31.118	8.435	104.889	1.00	26.74	L	C
	ATOM	552	CG	ASP	L	70	31.033	7.586	106.173	1.00	33.17	L	C
	ATOM	553	OD1	ASP	L	70	30.028	7.693	106.878	1.00	45.62	L	O
	ATOM	554	OD2	ASP	L	70	31.954	6.800	106.428	1.00	48.35	L	O
10	ATOM	555	N	PHE	L	71	29.124	9.526	102.329	1.00	17.29	L	N
	ATOM	556	CA	PHE	L	71	29.041	10.426	101.185	1.00	18.07	L	C
	ATOM	557	C	PHE	L	71	28.411	11.739	101.605	1.00	16.31	L	C
	ATOM	558	O	PHE	L	71	27.691	11.797	102.608	1.00	14.04	L	O
	ATOM	559	CB	PHE	L	71	28.138	9.766	100.109	1.00	16.27	L	C
15	ATOM	560	CG	PHE	L	71	28.709	8.463	99.614	1.00	15.39	L	C
	ATOM	561	CD1	PHE	L	71	28.523	7.284	100.325	1.00	11.66	L	C
	ATOM	562	CD2	PHE	L	71	29.579	8.462	98.525	1.00	7.25	L	C
	ATOM	563	CE1	PHE	L	71	29.223	6.062	99.951	1.00	12.24	L	C
	ATOM	564	CE2	PHE	L	71	30.268	7.301	98.153	1.00	7.98	L	C
20	ATOM	565	CZ	PHE	L	71	30.084	6.092	98.878	1.00	8.50	L	C
	ATOM	566	N	THR	L	72	28.624	12.765	100.801	1.00	17.20	L	N
	ATOM	567	CA	THR	L	72	27.998	14.035	101.081	1.00	17.62	L	C
	ATOM	568	C	THR	L	72	27.575	14.675	99.751	1.00	19.31	L	C
	ATOM	569	O	THR	L	72	28.196	14.435	98.717	1.00	20.88	L	O
25	ATOM	570	CB	THR	L	72	28.964	15.020	101.770	1.00	15.55	L	C
	ATOM	571	OG1	THR	L	72	30.058	15.250	100.913	1.00	23.82	L	O
	ATOM	572	CG2	THR	L	72	29.542	14.436	103.030	1.00	15.82	L	C
	ATOM	573	N	LEU	L	73	26.493	15.457	99.807	1.00	19.72	L	N
	ATOM	574	CA	LEU	L	73	26.030	16.236	98.663	1.00	16.55	L	C
30	ATOM	575	C	LEU	L	73	26.217	17.677	99.201	1.00	14.66	L	C
	ATOM	576	O	LEU	L	73	25.783	17.976	100.322	1.00	18.46	L	O
	ATOM	577	CB	LEU	L	73	24.513	15.996	98.415	1.00	12.04	L	C
	ATOM	578	CG	LEU	L	73	23.862	16.933	97.412	1.00	15.16	L	C
	ATOM	579	CD1	LEU	L	73	24.364	16.622	95.971	1.00	7.12	L	C
35	ATOM	580	CD2	LEU	L	73	22.333	16.778	97.425	1.00	10.12	L	C
	ATOM	581	N	THR	L	74	26.779	18.549	98.366	1.00	15.06	L	N
	ATOM	582	CA	THR	L	74	27.001	19.931	98.745	1.00	14.50	L	C
	ATOM	583	C	THR	L	74	26.271	20.792	97.744	1.00	16.15	L	C
	ATOM	584	O	THR	L	74	26.297	20.513	96.532	1.00	20.55	L	O
40	ATOM	585	CB	THR	L	74	28.497	20.274	98.756	1.00	14.01	L	C
	ATOM	586	OG1	THR	L	74	29.136	19.508	99.777	1.00	10.91	L	O
	ATOM	587	CG2	THR	L	74	28.719	21.793	99.068	1.00	8.51	L	C
	ATOM	588	N	ILE	L	75	25.520	21.784	98.233	1.00	16.30	L	N
	ATOM	589	CA	ILE	L	75	24.842	22.717	97.352	1.00	16.67	L	C
45	ATOM	590	C	ILE	L	75	25.515	24.052	97.687	1.00	20.52	L	C
	ATOM	591	O	ILE	L	75	25.481	24.501	98.855	1.00	21.73	L	O
	ATOM	592	CB	ILE	L	75	23.331	22.809	97.656	1.00	20.98	L	C
	ATOM	593	CG1	ILE	L	75	22.756	21.387	97.597	1.00	14.60	L	C
	ATOM	594	CG2	ILE	L	75	22.643	23.703	96.641	1.00	7.63	L	C
50	ATOM	595	CD1	ILE	L	75	21.239	21.348	97.963	1.00	10.72	L	C
	ATOM	596	N	ASN	L	76	26.085	24.703	96.691	1.00	18.75	L	N
	ATOM	597	CA	ASN	L	76	26.803	25.941	97.025	1.00	18.83	L	C
	ATOM	598	C	ASN	L	76	27.022	26.797	95.789	1.00	19.14	L	C
	ATOM	599	O	ASN	L	76	27.640	26.378	94.829	1.00	20.66	L	O
55	ATOM	600	CB	ASN	L	76	28.159	25.535	97.655	1.00	20.07	L	C
	ATOM	601	CG	ASN	L	76	28.920	26.738	98.205	1.00	20.61	L	C
	ATOM	602	OD1	ASN	L	76	28.302	27.682	98.681	1.00	20.96	L	O
	ATOM	603	ND2	ASN	L	76	30.244	26.690	98.175	1.00	25.64	L	N
	ATOM	604	N	PRO	L	77	26.467	28.005	95.757	1.00	22.23	L	N
60	ATOM	605	CA	PRO	L	77	25.632	28.644	96.793	1.00	22.24	L	C
	ATOM	606	C	PRO	L	77	24.205	28.126	96.665	1.00	22.29	L	C

	ATOM	607	O	PRO	L	77	23.721	27.852	95.567	1.00	23.37	L	O
	ATOM	608	CB	PRO	L	77	25.651	30.135	96.414	1.00	20.03	L	C
	ATOM	609	CG	PRO	L	77	25.601	30.058	94.807	1.00	18.01	L	C
	ATOM	610	CD	PRO	L	77	26.621	28.854	94.560	1.00	19.60	L	C
5	ATOM	611	N	VAL	L	78	23.516	28.051	97.794	1.00	19.30	L	N
	ATOM	612	CA	VAL	L	78	22.086	27.650	97.773	1.00	15.86	L	C
	ATOM	613	C	VAL	L	78	21.237	28.809	97.198	1.00	15.02	L	C
	ATOM	614	O	VAL	L	78	21.528	30.006	97.458	1.00	18.62	L	O
	ATOM	615	CB	VAL	L	78	21.659	27.342	99.240	1.00	10.76	L	C
10	ATOM	616	CG1	VAL	L	78	20.108	27.338	99.344	1.00	15.65	L	C
	ATOM	617	CG2	VAL	L	78	22.225	25.962	99.691	1.00	8.70	L	C
	ATOM	618	N	GLU	L	79	20.229	28.482	96.385	1.00	15.66	L	N
	ATOM	619	CA	GLU	L	79	19.303	29.452	95.777	1.00	15.48	L	C
	ATOM	620	C	GLU	L	79	17.890	29.108	96.280	1.00	19.00	L	C
15	ATOM	621	O	GLU	L	79	17.679	28.011	96.728	1.00	18.75	L	O
	ATOM	622	CB	GLU	L	79	19.341	29.354	94.257	1.00	16.52	L	C
	ATOM	623	CG	GLU	L	79	20.703	29.701	93.731	1.00	17.33	L	C
	ATOM	624	CD	GLU	L	79	20.771	29.892	92.198	1.00	31.97	L	C
	ATOM	625	OE1	GLU	L	79	21.811	30.362	91.749	1.00	36.07	L	O
20	ATOM	626	OE2	GLU	L	79	19.829	29.549	91.476	1.00	19.91	L	O
	ATOM	627	N	ALA	L	80	16.946	30.041	96.179	1.00	17.42	L	N
	ATOM	628	CA	ALA	L	80	15.594	29.804	96.728	1.00	15.69	L	C
	ATOM	629	C	ALA	L	80	14.941	28.596	96.125	1.00	17.37	L	C
	ATOM	630	O	ALA	L	80	14.202	27.902	96.797	1.00	20.28	L	O
25	ATOM	631	CB	ALA	L	80	14.655	31.034	96.432	1.00	17.81	L	C
	ATOM	632	N	ASP	L	81	15.181	28.374	94.839	1.00	19.11	L	N
	ATOM	633	CA	ASP	L	81	14.492	27.254	94.184	1.00	20.13	L	C
	ATOM	634	C	ASP	L	81	15.083	25.903	94.533	1.00	18.90	L	C
	ATOM	635	O	ASP	L	81	14.614	24.889	93.991	1.00	22.61	L	O
30	ATOM	636	CB	ASP	L	81	14.467	27.444	92.658	1.00	20.21	L	C
	ATOM	637	CG	ASP	L	81	13.575	26.430	91.938	1.00	34.87	L	C
	ATOM	638	OD1	ASP	L	81	12.398	26.284	92.319	1.00	48.81	L	O
	ATOM	639	OD2	ASP	L	81	14.054	25.764	90.982	1.00	50.24	L	O
	ATOM	640	N	ASP	L	82	16.057	25.871	95.453	1.00	16.98	L	N
35	ATOM	641	CA	ASP	L	82	16.640	24.587	95.887	1.00	15.01	L	C
	ATOM	642	C	ASP	L	82	15.839	23.921	97.038	1.00	15.72	L	C
	ATOM	643	O	ASP	L	82	16.144	22.779	97.470	1.00	19.30	L	O
	ATOM	644	CB	ASP	L	82	18.088	24.761	96.328	1.00	13.58	L	C
	ATOM	645	CG	ASP	L	82	19.016	25.236	95.161	1.00	19.81	L	C
40	ATOM	646	OD1	ASP	L	82	18.685	25.119	93.925	1.00	15.99	L	O
	ATOM	647	OD2	ASP	L	82	20.081	25.777	95.531	1.00	22.54	L	O
	ATOM	648	N	VAL	L	83	14.810	24.609	97.553	1.00	15.10	L	N
	ATOM	649	CA	VAL	L	83	14.008	23.957	98.617	1.00	18.05	L	C
	ATOM	650	C	VAL	L	83	13.427	22.662	98.020	1.00	17.36	L	C
45	ATOM	651	O	VAL	L	83	12.820	22.650	96.948	1.00	17.48	L	O
	ATOM	652	CB	VAL	L	83	12.914	24.905	99.174	1.00	15.94	L	C
	ATOM	653	CG1	VAL	L	83	13.604	25.942	100.046	1.00	23.49	L	C
	ATOM	654	CG2	VAL	L	83	12.227	25.582	98.130	1.00	25.18	L	C
	ATOM	655	N	ALA	L	84	13.651	21.576	98.738	1.00	15.63	L	N
50	ATOM	656	CA	ALA	L	84	13.272	20.269	98.218	1.00	14.84	L	C
	ATOM	657	C	ALA	L	84	13.732	19.240	99.214	1.00	15.55	L	C
	ATOM	658	O	ALA	L	84	14.336	19.576	100.253	1.00	15.84	L	O
	ATOM	659	CB	ALA	L	84	14.071	20.056	96.900	1.00	14.40	L	C
	ATOM	660	N	THR	L	85	13.416	17.959	98.930	1.00	15.71	L	N
55	ATOM	661	CA	THR	L	85	13.960	16.888	99.739	1.00	15.45	L	C
	ATOM	662	C	THR	L	85	15.005	16.210	98.843	1.00	15.12	L	C
	ATOM	663	O	THR	L	85	14.727	15.967	97.667	1.00	15.93	L	O
	ATOM	664	CB	THR	L	85	12.845	15.855	100.140	1.00	17.03	L	C
	ATOM	665	OG1	THR	L	85	11.920	16.521	101.021	1.00	22.01	L	O
60	ATOM	666	CG2	THR	L	85	13.470	14.657	100.918	1.00	8.72	L	C
	ATOM	667	N	TYR	L	86	16.183	15.916	99.411	1.00	14.04	L	N

	ATOM	668	CA	TYR	L	86	17.268	15.309	98.667	1.00	13.13	L	C
	ATOM	669	C	TYR	L	86	17.447	13.879	99.156	1.00	16.69	L	C
	ATOM	670	O	TYR	L	86	17.458	13.637	100.330	1.00	18.94	L	O
	ATOM	671	CB	TYR	L	86	18.564	16.109	98.896	1.00	11.97	L	C
5	ATOM	672	CG	TYR	L	86	18.443	17.491	98.305	1.00	11.60	L	C
	ATOM	673	CD1	TYR	L	86	17.811	18.516	98.981	1.00	7.53	L	C
	ATOM	674	CD2	TYR	L	86	18.872	17.734	97.006	1.00	12.00	L	C
	ATOM	675	CE1	TYR	L	86	17.590	19.772	98.364	1.00	11.09	L	C
	ATOM	676	CE2	TYR	L	86	18.678	18.955	96.389	1.00	11.34	L	C
10	ATOM	677	CZ	TYR	L	86	18.043	19.968	97.056	1.00	17.23	L	C
	ATOM	678	OH	TYR	L	86	17.888	21.177	96.447	1.00	15.79	L	O
	ATOM	679	N	TYR	L	87	17.559	12.936	98.214	1.00	16.92	L	N
	ATOM	680	CA	TYR	L	87	17.721	11.533	98.587	1.00	13.58	L	C
	ATOM	681	C	TYR	L	87	19.002	10.935	98.055	1.00	12.86	L	C
15	ATOM	682	O	TYR	L	87	19.326	11.195	96.894	1.00	18.14	L	O
	ATOM	683	CB	TYR	L	87	16.618	10.684	97.963	1.00	6.47	L	C
	ATOM	684	CG	TYR	L	87	15.235	11.018	98.457	1.00	18.98	L	C
	ATOM	685	CD1	TYR	L	87	14.461	11.985	97.824	1.00	11.56	L	C
	ATOM	686	CD2	TYR	L	87	14.684	10.318	99.518	1.00	14.13	L	C
20	ATOM	687	CE1	TYR	L	87	13.156	12.228	98.246	1.00	15.50	L	C
	ATOM	688	CE2	TYR	L	87	13.358	10.572	99.941	1.00	7.09	L	C
	ATOM	689	CZ	TYR	L	87	12.621	11.510	99.306	1.00	17.61	L	C
	ATOM	690	OH	TYR	L	87	11.313	11.799	99.716	1.00	18.17	L	O
	ATOM	691	N	CYS	L	88	19.673	10.099	98.850	1.00	9.84	L	N
25	ATOM	692	CA	CYS	L	88	20.813	9.367	98.272	1.00	14.40	L	C
	ATOM	693	C	CYS	L	88	20.235	7.961	97.902	1.00	15.10	L	C
	ATOM	694	O	CYS	L	88	19.136	7.592	98.357	1.00	18.42	L	O
	ATOM	695	CB	CYS	L	88	21.962	9.241	99.263	1.00	12.72	L	C
	ATOM	696	SG	CYS	L	88	21.464	8.575	100.910	1.00	16.04	L	S
30	ATOM	697	N	GLN	L	89	20.944	7.220	97.041	1.00	11.35	L	N
	ATOM	698	CA	GLN	L	89	20.468	5.917	96.588	1.00	9.96	L	C
	ATOM	699	C	GLN	L	89	21.692	5.101	96.156	1.00	13.56	L	C
	ATOM	700	O	GLN	L	89	22.591	5.652	95.507	1.00	14.17	L	O
	ATOM	701	CB	GLN	L	89	19.561	6.138	95.392	1.00	9.47	L	C
35	ATOM	702	CG	GLN	L	89	18.988	4.858	94.748	1.00	8.43	L	C
	ATOM	703	CD	GLN	L	89	19.713	4.527	93.433	1.00	12.81	L	C
	ATOM	704	OE1	GLN	L	89	19.766	5.348	92.490	1.00	13.05	L	O
	ATOM	705	NE2	GLN	L	89	20.250	3.310	93.364	1.00	7.99	L	N
	ATOM	706	N	GLN	L	90	21.744	3.825	96.542	1.00	12.73	L	N
40	ATOM	707	CA	GLN	L	90	22.913	2.994	96.196	1.00	11.36	L	C
	ATOM	708	C	GLN	L	90	22.517	1.939	95.194	1.00	12.24	L	C
	ATOM	709	O	GLN	L	90	21.399	1.436	95.209	1.00	8.64	L	O
	ATOM	710	CB	GLN	L	90	23.527	2.285	97.415	1.00	9.81	L	C
	ATOM	711	CG	GLN	L	90	22.598	1.298	98.110	1.00	14.99	L	C
45	ATOM	712	CD	GLN	L	90	22.598	-0.129	97.521	1.00	18.05	L	C
	ATOM	713	OE1	GLN	L	90	23.545	-0.566	96.864	1.00	15.88	L	O
	ATOM	714	NE2	GLN	L	90	21.518	-0.858	97.800	1.00	20.57	L	N
	ATOM	715	N	SER	L	91	23.473	1.641	94.322	1.00	13.95	L	N
	ATOM	716	CA	SER	L	91	23.290	0.693	93.251	1.00	19.79	L	C
50	ATOM	717	C	SER	L	91	24.352	-0.403	93.325	1.00	18.67	L	C
	ATOM	718	O	SER	L	91	24.611	-1.040	92.298	1.00	19.36	L	O
	ATOM	719	CB	SER	L	91	23.441	1.425	91.887	1.00	15.12	L	C
	ATOM	720	OG	SER	L	91	22.237	2.067	91.586	1.00	33.42	L	O
	ATOM	721	N	ASN	L	92	24.930	-0.634	94.510	1.00	16.12	L	N
55	ATOM	722	CA	ASN	L	92	25.989	-1.659	94.620	1.00	15.63	L	C
	ATOM	723	C	ASN	L	92	25.422	-3.053	94.890	1.00	14.30	L	C
	ATOM	724	O	ASN	L	92	26.015	-4.064	94.460	1.00	16.71	L	O
	ATOM	725	CB	ASN	L	92	27.040	-1.288	95.676	1.00	15.71	L	C
	ATOM	726	CG	ASN	L	92	28.307	-2.149	95.545	1.00	14.45	L	C
60	ATOM	727	OD1	ASN	L	92	28.831	-2.324	94.450	1.00	27.57	L	O
	ATOM	728	ND2	ASN	L	92	28.770	-2.700	96.656	1.00	25.93	L	N

ATOM	729	N	GLU	L	93	24.279	-3.143	95.562	1.00	16.66	L	N
ATOM	730	CA	GLU	L	93	23.643	-4.433	95.783	1.00	16.68	L	C
ATOM	731	C	GLU	L	93	22.164	-4.332	95.540	1.00	18.74	L	C
ATOM	732	O	GLU	L	93	21.542	-3.325	95.804	1.00	20.03	L	O
ATOM	733	CB	GLU	L	93	23.772	-4.934	97.261	1.00	20.26	L	C
ATOM	734	CG	GLU	L	93	25.164	-5.095	97.612	1.00	24.66	L	C
ATOM	735	CD	GLU	L	93	25.373	-5.930	98.887	1.00	27.35	L	C
ATOM	736	OE1	GLU	L	93	24.422	-6.153	99.638	1.00	20.40	L	O
ATOM	737	OE2	GLU	L	93	26.517	-6.309	99.032	1.00	31.57	L	O
ATOM	738	N	ASP	L	94	21.584	-5.438	95.123	1.00	20.63	L	N
ATOM	739	CA	ASP	L	94	20.123	-5.480	94.983	1.00	17.16	L	C
ATOM	740	C	ASP	L	94	19.620	-5.956	96.366	1.00	16.50	L	C
ATOM	741	O	ASP	L	94	20.278	-6.748	97.008	1.00	21.43	L	O
ATOM	742	CB	ASP	L	94	19.746	-6.525	93.962	1.00	18.30	L	C
ATOM	743	CG	ASP	L	94	20.195	-6.159	92.573	1.00	22.97	L	C
ATOM	744	OD1	ASP	L	94	20.453	-4.967	92.336	1.00	31.49	L	O
ATOM	745	OD2	ASP	L	94	20.255	-7.058	91.718	1.00	33.23	L	O
ATOM	746	N	PRO	L	95	18.473	-5.447	96.836	1.00	18.36	L	N
ATOM	747	CA	PRO	L	95	17.663	-4.449	96.112	1.00	15.59	L	C
ATOM	748	C	PRO	L	95	18.313	-3.067	96.210	1.00	15.03	L	C
ATOM	749	O	PRO	L	95	18.880	-2.731	97.243	1.00	15.51	L	O
ATOM	750	CB	PRO	L	95	16.325	-4.466	96.865	1.00	15.24	L	C
ATOM	751	CG	PRO	L	95	16.748	-4.764	98.308	1.00	19.84	L	C
ATOM	752	CD	PRO	L	95	17.832	-5.859	98.104	1.00	18.49	L	C
ATOM	753	N	TRP	L	96	18.190	-2.249	95.169	1.00	12.53	L	N
ATOM	754	CA	TRP	L	96	18.751	-0.916	95.285	1.00	11.43	L	C
ATOM	755	C	TRP	L	96	17.888	-0.227	96.339	1.00	15.42	L	C
ATOM	756	O	TRP	L	96	16.668	-0.463	96.364	1.00	16.13	L	O
ATOM	757	CB	TRP	L	96	18.596	-0.141	93.994	1.00	6.29	L	C
ATOM	758	CG	TRP	L	96	19.497	-0.624	92.924	1.00	18.26	L	C
ATOM	759	CD1	TRP	L	96	20.292	-1.701	92.954	1.00	23.00	L	C
ATOM	760	CD2	TRP	L	96	19.694	0.007	91.657	1.00	15.27	L	C
ATOM	761	NE1	TRP	L	96	21.009	-1.785	91.775	1.00	15.73	L	N
ATOM	762	CE2	TRP	L	96	20.650	-0.744	90.964	1.00	22.20	L	C
ATOM	763	CE3	TRP	L	96	19.148	1.137	91.058	1.00	13.08	L	C
ATOM	764	CZ2	TRP	L	96	21.092	-0.397	89.681	1.00	23.50	L	C
ATOM	765	CZ3	TRP	L	96	19.583	1.498	89.787	1.00	29.69	L	C
ATOM	766	CH2	TRP	L	96	20.552	0.729	89.118	1.00	23.23	L	C
ATOM	767	N	THR	L	97	18.521	0.636	97.153	1.00	14.07	L	N
ATOM	768	CA	THR	L	97	17.784	1.306	98.212	1.00	14.31	L	C
ATOM	769	C	THR	L	97	18.051	2.804	98.229	1.00	16.18	L	C
ATOM	770	O	THR	L	97	19.063	3.276	97.707	1.00	18.79	L	O
ATOM	771	CB	THR	L	97	18.160	0.742	99.570	1.00	13.49	L	C
ATOM	772	OG1	THR	L	97	19.588	0.642	99.618	1.00	17.28	L	O
ATOM	773	CG2	THR	L	97	17.561	-0.728	99.749	1.00	10.34	L	C
ATOM	774	N	PHE	L	98	17.119	3.515	98.851	1.00	16.74	L	N
ATOM	775	CA	PHE	L	98	17.173	4.966	98.957	1.00	15.24	L	C
ATOM	776	C	PHE	L	98	17.292	5.386	100.417	1.00	14.99	L	C
ATOM	777	O	PHE	L	98	16.795	4.676	101.313	1.00	13.01	L	O
ATOM	778	CB	PHE	L	98	15.898	5.572	98.435	1.00	12.91	L	C
ATOM	779	CG	PHE	L	98	15.721	5.522	96.952	1.00	13.58	L	C
ATOM	780	CD1	PHE	L	98	15.204	4.390	96.335	1.00	11.52	L	C
ATOM	781	CD2	PHE	L	98	16.004	6.648	96.173	1.00	10.32	L	C
ATOM	782	CE1	PHE	L	98	14.981	4.388	94.966	1.00	10.75	L	C
ATOM	783	CE2	PHE	L	98	15.770	6.644	94.808	1.00	13.28	L	C
ATOM	784	CZ	PHE	L	98	15.259	5.503	94.217	1.00	15.23	L	C
ATOM	785	N	GLY	L	99	17.984	6.511	100.661	1.00	13.55	L	N
ATOM	786	CA	GLY	L	99	18.027	7.055	102.027	1.00	10.54	L	C
ATOM	787	C	GLY	L	99	16.637	7.610	102.318	1.00	12.58	L	C
ATOM	788	O	GLY	L	99	15.796	7.735	101.424	1.00	9.94	L	O
ATOM	789	N	GLY	L	100	16.424	8.022	103.565	1.00	12.36	L	N

	ATOM	790	CA	GLY	L	100	15.147	8.553	103.982	1.00	8.70	L C
	ATOM	791	C	GLY	L	100	14.891	10.004	103.583	1.00	15.60	L C
	ATOM	792	O	GLY	L	100	13.803	10.533	103.828	1.00	17.49	L O
	ATOM	793	N	GLY	L	101	15.910	10.695	103.040	1.00	15.34	L N
5	ATOM	794	CA	GLY	L	101	15.662	12.053	102.574	1.00	18.81	L C
	ATOM	795	C	GLY	L	101	16.100	13.108	103.567	1.00	17.29	L C
	ATOM	796	O	GLY	L	101	16.044	12.868	104.775	1.00	18.50	L O
	ATOM	797	N	THR	L	102	16.577	14.239	103.050	1.00	15.70	L N
	ATOM	798	CA	THR	L	102	16.963	15.383	103.902	1.00	13.96	L C
10	ATOM	799	C	THR	L	102	16.243	16.556	103.300	1.00	12.46	L C
	ATOM	800	O	THR	L	102	16.358	16.831	102.080	1.00	11.12	L O
	ATOM	801	CB	THR	L	102	18.526	15.654	103.915	1.00	13.19	L C
	ATOM	802	OG1	THR	L	102	19.194	14.618	104.653	1.00	18.45	L O
	ATOM	803	CG2	THR	L	102	18.813	17.042	104.578	1.00	7.06	L C
15	ATOM	804	N	LYS	L	103	15.488	17.279	104.130	1.00	11.45	L N
	ATOM	805	CA	LYS	L	103	14.756	18.405	103.615	1.00	13.95	L C
	ATOM	806	C	LYS	L	103	15.578	19.704	103.729	1.00	12.14	L C
	ATOM	807	O	LYS	L	103	16.098	19.996	104.795	1.00	16.90	L O
	ATOM	808	CB	LYS	L	103	13.411	18.609	104.360	1.00	11.00	L C
20	ATOM	809	CG	LYS	L	103	12.759	19.922	103.933	1.00	25.30	L C
	ATOM	810	CD	LYS	L	103	11.185	19.917	103.860	1.00	32.62	L C
	ATOM	811	CE	LYS	L	103	10.533	19.242	105.063	1.00	42.65	L C
	ATOM	812	NZ	LYS	L	103	9.000	19.156	104.966	1.00	51.76	L N
	ATOM	813	N	LEU	L	104	15.689	20.453	102.641	1.00	11.40	L N
25	ATOM	814	CA	LEU	L	104	16.470	21.727	102.700	1.00	14.03	L C
	ATOM	815	C	LEU	L	104	15.472	22.912	102.763	1.00	16.12	L C
	ATOM	816	O	LEU	L	104	14.494	22.989	101.964	1.00	19.86	L O
	ATOM	817	CB	LEU	L	104	17.316	21.896	101.444	1.00	17.08	L C
	ATOM	818	CG	LEU	L	104	18.153	23.204	101.382	1.00	15.21	L C
30	ATOM	819	CD1	LEU	L	104	19.243	23.200	102.465	1.00	14.42	L C
	ATOM	820	CD2	LEU	L	104	18.758	23.351	99.967	1.00	21.88	L C
	ATOM	821	N	GLU	L	105	15.738	23.838	103.669	1.00	19.74	L N
	ATOM	822	CA	GLU	L	105	14.883	25.048	103.776	1.00	23.03	L C
	ATOM	823	C	GLU	L	105	15.777	26.266	103.798	1.00	21.66	L C
35	ATOM	824	O	GLU	L	105	16.995	26.152	104.094	1.00	23.85	L O
	ATOM	825	CB	GLU	L	105	14.058	24.996	105.055	1.00	20.70	L C
	ATOM	826	CG	GLU	L	105	12.822	24.033	104.818	1.00	42.64	L C
	ATOM	827	CD	GLU	L	105	11.991	23.732	106.069	1.00	41.20	L C
	ATOM	828	OE1	GLU	L	105	12.550	23.403	107.145	1.00	48.80	L O
40	ATOM	829	OE2	GLU	L	105	10.772	23.799	105.946	1.00	35.54	L O
	ATOM	830	N	ILE	L	106	15.167	27.409	103.518	1.00	19.49	L N
	ATOM	831	CA	ILE	L	106	15.897	28.691	103.477	1.00	18.78	L C
	ATOM	832	C	ILE	L	106	15.594	29.515	104.702	1.00	18.92	L C
	ATOM	833	O	ILE	L	106	14.423	29.655	105.047	1.00	17.74	L O
45	ATOM	834	CB	ILE	L	106	15.454	29.520	102.269	1.00	18.45	L C
	ATOM	835	CG1	ILE	L	106	15.651	28.723	100.961	1.00	23.36	L C
	ATOM	836	CG2	ILE	L	106	16.165	30.884	102.287	1.00	17.39	L C
	ATOM	837	CD1	ILE	L	106	17.082	28.290	100.736	1.00	11.46	L C
	ATOM	838	N	LYS	L	107	16.622	30.020	105.397	1.00	18.87	L N
50	ATOM	839	CA	LYS	L	107	16.391	30.902	106.544	1.00	18.21	L C
	ATOM	840	CB	LYS	L	107	17.507	30.812	107.505	1.00	13.40	L C
	ATOM	841	C	LYS	L	107	16.341	32.312	105.953	1.00	21.75	L C
	ATOM	842	O	LYS	L	107	17.316	32.765	105.330	1.00	26.63	L O
	ATOM	843	N	ARG	L	108	15.208	33.001	106.064	1.00	24.68	L N
55	ATOM	844	CA	ARG	L	108	15.110	34.375	105.588	1.00	23.09	L C
	ATOM	845	C	ARG	L	108	14.597	35.310	106.685	1.00	22.48	L C
	ATOM	846	O	ARG	L	108	14.547	34.974	107.860	1.00	26.67	L O
	ATOM	847	CB	ARG	L	108	14.151	34.397	104.397	1.00	19.08	L C
	ATOM	848	CG	ARG	L	108	12.735	33.971	104.784	1.00	22.27	L C
60	ATOM	849	CD	ARG	L	108	11.672	34.639	103.903	1.00	21.24	L C
	ATOM	850	NE	ARG	L	108	11.420	36.012	104.351	1.00	20.00	L N

ATOM	851	CZ	ARG	L	108	10.862	36.858	103.466	1.00	20.00	L	C
ATOM	852	NH1	ARG	L	108	10.555	36.441	102.250	1.00	20.00	L	N
ATOM	853	NH2	ARG	L	108	10.614	38.120	103.825	1.00	20.00	L	N
ATOM	854	N	ALA	L	109	14.245	36.539	106.266	1.00	22.10	L	N
ATOM	855	CA	ALA	L	109	13.729	37.503	107.229	1.00	25.90	L	C
ATOM	856	C	ALA	L	109	12.312	37.142	107.681	1.00	28.19	L	C
ATOM	857	O	ALA	L	109	11.497	36.641	106.918	1.00	28.86	L	O
ATOM	858	CB	ALA	L	109	13.730	38.883	106.570	1.00	19.28	L	C
ATOM	859	N	ASP	L	110	11.904	37.545	108.886	1.00	24.17	L	N
ATOM	860	CA	ASP	L	110	10.526	37.268	109.294	1.00	21.56	L	C
ATOM	861	C	ASP	L	110	9.516	37.934	108.346	1.00	23.66	L	C
ATOM	862	O	ASP	L	110	9.784	39.005	107.830	1.00	22.76	L	O
ATOM	863	CB	ASP	L	110	10.297	37.805	110.698	1.00	19.33	L	C
ATOM	864	CG	ASP	L	110	11.020	37.003	111.751	1.00	26.80	L	C
ATOM	865	OD1	ASP	L	110	11.593	35.921	111.458	1.00	25.30	L	O
ATOM	866	OD2	ASP	L	110	10.969	37.446	112.915	1.00	38.99	L	O
ATOM	867	N	ALA	L	111	8.357	37.305	108.118	1.00	21.57	L	N
ATOM	868	CA	ALA	L	111	7.330	37.901	107.280	1.00	17.99	L	C
ATOM	869	C	ALA	L	111	5.960	37.587	107.893	1.00	20.07	L	C
ATOM	870	O	ALA	L	111	5.625	36.421	108.163	1.00	22.24	L	O
ATOM	871	CB	ALA	L	111	7.398	37.378	105.886	1.00	11.33	L	C
ATOM	872	N	ALA	L	112	5.147	38.608	108.115	1.00	18.94	L	N
ATOM	873	CA	ALA	L	112	3.860	38.333	108.766	1.00	18.42	L	C
ATOM	874	C	ALA	L	112	2.873	37.698	107.817	1.00	20.56	L	C
ATOM	875	O	ALA	L	112	2.869	37.981	106.647	1.00	25.17	L	O
ATOM	876	CB	ALA	L	112	3.221	39.653	109.324	1.00	15.77	L	C
ATOM	877	N	PRO	L	113	1.957	36.867	108.343	1.00	19.48	L	N
ATOM	878	CA	PRO	L	113	0.994	36.258	107.426	1.00	17.01	L	C
ATOM	879	C	PRO	L	113	-0.051	37.193	106.895	1.00	17.50	L	C
ATOM	880	O	PRO	L	113	-0.427	38.129	107.573	1.00	21.67	L	O
ATOM	881	CB	PRO	L	113	0.352	35.152	108.274	1.00	16.83	L	C
ATOM	882	CG	PRO	L	113	0.478	35.664	109.662	1.00	10.92	L	C
ATOM	883	CD	PRO	L	113	1.853	36.298	109.688	1.00	17.62	L	C
ATOM	884	N	THR	L	114	-0.511	36.947	105.679	1.00	21.82	L	N
ATOM	885	CA	THR	L	114	-1.625	37.725	105.138	1.00	21.62	L	C
ATOM	886	C	THR	L	114	-2.839	36.808	105.388	1.00	24.80	L	C
ATOM	887	O	THR	L	114	-2.946	35.714	104.786	1.00	25.84	L	O
ATOM	888	CB	THR	L	114	-1.439	37.955	103.644	1.00	24.03	L	C
ATOM	889	OG1	THR	L	114	-0.309	38.827	103.460	1.00	25.12	L	O
ATOM	890	CG2	THR	L	114	-2.655	38.604	103.050	1.00	15.64	L	C
ATOM	891	N	VAL	L	115	-3.752	37.263	106.255	1.00	22.00	L	N
ATOM	892	CA	VAL	L	115	-4.897	36.423	106.654	1.00	21.60	L	C
ATOM	893	C	VAL	L	115	-6.170	36.850	105.944	1.00	23.51	L	C
ATOM	894	O	VAL	L	115	-6.455	38.053	105.906	1.00	22.67	L	O
ATOM	895	CB	VAL	L	115	-5.104	36.543	108.159	1.00	18.30	L	C
ATOM	896	CG1	VAL	L	115	-6.171	35.567	108.620	1.00	18.51	L	C
ATOM	897	CG2	VAL	L	115	-3.743	36.262	108.930	1.00	15.64	L	C
ATOM	898	N	SER	L	116	-6.920	35.878	105.413	1.00	21.18	L	N
ATOM	899	CA	SER	L	116	-8.177	36.131	104.679	1.00	19.67	L	C
ATOM	900	C	SER	L	116	-9.200	35.125	105.173	1.00	20.75	L	C
ATOM	901	O	SER	L	116	-8.878	33.963	105.281	1.00	19.14	L	O
ATOM	902	CB	SER	L	116	-8.003	35.930	103.162	1.00	16.47	L	C
ATOM	903	OG	SER	L	116	-6.991	36.777	102.687	1.00	31.49	L	O
ATOM	904	N	ILE	L	117	-10.438	35.565	105.478	1.00	18.42	L	N
ATOM	905	CA	ILE	L	117	-11.452	34.627	105.968	1.00	19.19	L	C
ATOM	906	C	ILE	L	117	-12.594	34.564	104.970	1.00	18.21	L	C
ATOM	907	O	ILE	L	117	-12.884	35.572	104.306	1.00	19.48	L	O
ATOM	908	CB	ILE	L	117	-11.980	35.028	107.384	1.00	20.88	L	C
ATOM	909	CG1	ILE	L	117	-12.950	33.964	107.891	1.00	16.18	L	C
ATOM	910	CG2	ILE	L	117	-12.633	36.421	107.356	1.00	21.53	L	C
ATOM	911	CD1	ILE	L	117	-13.317	34.197	109.365	1.00	21.53	L	C

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ATOM    912  N   PHE L 118     -13.211  33.383 104.839  1.00 16.84      L    N
ATOM    913  CA  PHE L 118     -14.262  33.214 103.861  1.00 14.96      L    C
ATOM    914  C   PHE L 118     -15.490  32.512 104.373  1.00 19.74      L    C
ATOM    915  O   PHE L 118     -15.406  31.427 104.918  1.00 24.08      L    O
ATOM    916  CB  PHE L 118     -13.776  32.382 102.677  1.00 16.32      L    C
ATOM    917  CG  PHE L 118     -12.558  32.927 102.032  1.00 19.49      L    C
ATOM    918  CD1 PHE L 118     -11.308  32.634 102.550  1.00 23.15      L    C
ATOM    919  CD2 PHE L 118     -12.653  33.805 100.964  1.00 16.22      L    C
ATOM    920  CE1 PHE L 118     -10.145  33.225 102.011  1.00 27.60      L    C
ATOM    921  CE2 PHE L 118     -11.486  34.395 100.420  1.00 18.98      L    C
ATOM    922  CZ  PHE L 118     -10.252  34.104 100.948  1.00 19.75      L    C
ATOM    923  N   PRO L 119     -16.671  33.102 104.161  1.00 24.09      L    N
ATOM    924  CA  PRO L 119     -17.866  32.401 104.643  1.00 21.88      L    C
ATOM    925  C   PRO L 119     -18.187  31.236 103.755  1.00 22.99      L    C
ATOM    926  O   PRO L 119     -17.649  31.105 102.623  1.00 25.33      L    O
ATOM    927  CB  PRO L 119     -18.993  33.441 104.512  1.00 21.57      L    C
ATOM    928  CG  PRO L 119     -18.289  34.768 104.438  1.00 24.58      L    C
ATOM    929  CD  PRO L 119     -16.957  34.496 103.742  1.00 23.46      L    C
ATOM    930  N   PRO L 120     -19.111  30.375 104.207  1.00 24.97      L    N
ATOM    931  CA  PRO L 120     -19.548  29.212 103.454  1.00 20.35      L    C
ATOM    932  C   PRO L 120     -20.169  29.766 102.153  1.00 22.34      L    C
ATOM    933  O   PRO L 120     -20.757  30.859 102.165  1.00 27.53      L    O
ATOM    934  CB  PRO L 120     -20.626  28.590 104.336  1.00 21.43      L    C
ATOM    935  CG  PRO L 120     -20.336  29.031 105.688  1.00 24.10      L    C
ATOM    936  CD  PRO L 120     -19.783  30.455 105.534  1.00 26.50      L    C
ATOM    937  N   SER L 121     -20.021  29.033 101.055  1.00 26.13      L    N
ATOM    938  CA  SER L 121     -20.559  29.461  99.739  1.00 28.80      L    C
ATOM    939  C   SER L 121     -22.061  29.144  99.748  1.00 30.89      L    C
ATOM    940  O   SER L 121     -22.508  28.278 100.482  1.00 28.98      L    O
ATOM    941  CB  SER L 121     -19.906  28.677  98.591  1.00 29.25      L    C
ATOM    942  OG  SER L 121     -20.172  27.284  98.686  1.00 28.45      L    O
ATOM    943  N   SER L 122     -22.831  29.855  98.916  1.00 33.37      L    N
ATOM    944  CA  SER L 122     -24.266  29.605  98.862  1.00 34.56      L    C
ATOM    945  C   SER L 122     -24.432  28.194  98.360  1.00 30.86      L    C
ATOM    946  O   SER L 122     -25.288  27.470  98.811  1.00 31.28      L    O
ATOM    947  CB  SER L 122     -24.935  30.594  97.903  1.00 36.90      L    C
ATOM    948  OG  SER L 122     -24.460  30.376  96.600  1.00 48.86      L    O
ATOM    949  N   GLU L 123     -23.571  27.776  97.436  1.00 28.18      L    N
ATOM    950  CA  GLU L 123     -23.659  26.408  96.936  1.00 33.35      L    C
ATOM    951  C   GLU L 123     -23.564  25.357  98.042  1.00 30.77      L    C
ATOM    952  O   GLU L 123     -24.316  24.377  98.049  1.00 28.32      L    O
ATOM    953  CB  GLU L 123     -22.554  26.177  95.913  1.00 35.48      L    C
ATOM    954  CG  GLU L 123     -22.812  26.923  94.643  1.00 49.39      L    C
ATOM    955  CD  GLU L 123     -22.019  28.188  94.524  1.00 60.63      L    C
ATOM    956  OE1 GLU L 123     -22.009  28.966  95.522  1.00 60.83      L    O
ATOM    957  OE2 GLU L 123     -21.405  28.378  93.434  1.00 60.19      L    O
ATOM    958  N   GLN L 124     -22.619  25.533  98.978  1.00 30.73      L    N
ATOM    959  CA  GLN L 124     -22.495  24.539 100.046  1.00 27.46      L    C
ATOM    960  C   GLN L 124     -23.678  24.587 101.005  1.00 25.19      L    C
ATOM    961  O   GLN L 124     -24.172  23.547 101.459  1.00 25.43      L    O
ATOM    962  CB  GLN L 124     -21.142  24.693 100.827  1.00 28.38      L    C
ATOM    963  CG  GLN L 124     -21.002  23.700 101.992  1.00 17.62      L    C
ATOM    964  CD  GLN L 124     -19.695  23.785 102.732  1.00 19.12      L    C
ATOM    965  OE1 GLN L 124     -19.129  24.872 102.862  1.00 20.58      L    O
ATOM    966  NE2 GLN L 124     -19.218  22.628 103.260  1.00 14.19      L    N
ATOM    967  N   LEU L 125     -24.128  25.781 101.331  1.00 23.58      L    N
ATOM    968  CA  LEU L 125     -25.255  25.923 102.246  1.00 26.99      L    C
ATOM    969  C   LEU L 125     -26.482  25.150 101.714  1.00 31.07      L    C
ATOM    970  O   LEU L 125     -27.160  24.439 102.467  1.00 31.01      L    O
ATOM    971  CB  LEU L 125     -25.574  27.404 102.442  1.00 21.80      L    C
ATOM    972  CG  LEU L 125     -24.497  28.130 103.268  1.00 26.32      L    C
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ATOM	973	CD1	LEU	L	125	-24.696	29.650	103.236	1.00	8.36	L	C
ATOM	974	CD2	LEU	L	125	-24.556	27.611	104.698	1.00	20.84	L	C
ATOM	975	N	THR	L	126	-26.753	25.264	100.424	1.00	33.07	L	N
ATOM	976	CA	THR	L	126	-27.880	24.508	99.876	1.00	35.65	L	C
ATOM	977	C	THR	L	126	-27.736	22.993	100.109	1.00	38.92	L	C
ATOM	978	O	THR	L	126	-28.733	22.282	100.041	1.00	45.16	L	O
ATOM	979	CB	THR	L	126	-28.021	24.678	98.376	1.00	37.07	L	C
ATOM	980	OG1	THR	L	126	-26.987	23.913	97.745	1.00	49.44	L	O
ATOM	981	CG2	THR	L	126	-27.929	26.170	97.960	1.00	27.81	L	C
ATOM	982	N	SER	L	127	-26.517	22.483	100.366	1.00	38.10	L	N
ATOM	983	CA	SER	L	127	-26.319	21.040	100.592	1.00	34.68	L	C
ATOM	984	C	SER	L	127	-26.420	20.705	102.055	1.00	34.07	L	C
ATOM	985	O	SER	L	127	-26.321	19.533	102.478	1.00	39.83	L	O
ATOM	986	CB	SER	L	127	-24.949	20.596	100.094	1.00	34.83	L	C
ATOM	987	OG	SER	L	127	-24.807	20.845	98.713	1.00	44.79	L	O
ATOM	988	N	GLY	L	128	-26.596	21.730	102.855	1.00	29.72	L	N
ATOM	989	CA	GLY	L	128	-26.717	21.469	104.259	1.00	34.23	L	C
ATOM	990	C	GLY	L	128	-25.440	21.697	105.030	1.00	36.19	L	C
ATOM	991	O	GLY	L	128	-25.456	21.612	106.264	1.00	40.26	L	O
ATOM	992	N	GLY	L	129	-24.353	22.020	104.326	1.00	33.03	L	N
ATOM	993	CA	GLY	L	129	-23.092	22.207	105.009	1.00	31.52	L	C
ATOM	994	C	GLY	L	129	-22.632	23.635	105.101	1.00	30.69	L	C
ATOM	995	O	GLY	L	129	-23.196	24.524	104.453	1.00	28.36	L	O
ATOM	996	N	ALA	L	130	-21.609	23.859	105.927	1.00	29.57	L	N
ATOM	997	CA	ALA	L	130	-21.095	25.205	106.141	1.00	29.07	L	C
ATOM	998	C	ALA	L	130	-19.650	25.164	106.583	1.00	27.65	L	C
ATOM	999	O	ALA	L	130	-19.376	25.016	107.771	1.00	32.06	L	O
ATOM	1000	CB	ALA	L	130	-21.909	25.940	107.211	1.00	25.02	L	C
ATOM	1001	N	SER	L	131	-18.732	25.329	105.635	1.00	26.55	L	N
ATOM	1002	CA	SER	L	131	-17.320	25.336	105.998	1.00	23.33	L	C
ATOM	1003	C	SER	L	131	-16.890	26.778	105.924	1.00	23.98	L	C
ATOM	1004	O	SER	L	131	-17.229	27.504	104.948	1.00	27.26	L	O
ATOM	1005	CB	SER	L	131	-16.504	24.489	105.005	1.00	18.37	L	C
ATOM	1006	OG	SER	L	131	-16.912	23.139	105.001	1.00	24.81	L	O
ATOM	1007	N	VAL	L	132	-16.156	27.213	106.955	1.00	20.02	L	N
ATOM	1008	CA	VAL	L	132	-15.639	28.556	107.035	1.00	22.56	L	C
ATOM	1009	C	VAL	L	132	-14.114	28.368	106.824	1.00	19.29	L	C
ATOM	1010	O	VAL	L	132	-13.500	27.522	107.500	1.00	17.72	L	O
ATOM	1011	CB	VAL	L	132	-15.862	29.175	108.417	1.00	23.70	L	C
ATOM	1012	CG1	VAL	L	132	-15.461	30.666	108.372	1.00	19.40	L	C
ATOM	1013	CG2	VAL	L	132	-17.369	29.077	108.816	1.00	21.15	L	C
ATOM	1014	N	VAL	L	133	-13.531	29.141	105.914	1.00	18.23	L	N
ATOM	1015	CA	VAL	L	133	-12.110	28.959	105.581	1.00	16.84	L	C
ATOM	1016	C	VAL	L	133	-11.267	30.201	105.870	1.00	16.55	L	C
ATOM	1017	O	VAL	L	133	-11.670	31.324	105.686	1.00	13.84	L	O
ATOM	1018	CB	VAL	L	133	-11.935	28.585	104.057	1.00	16.50	L	C
ATOM	1019	CG1	VAL	L	133	-10.401	28.419	103.741	1.00	12.48	L	C
ATOM	1020	CG2	VAL	L	133	-12.729	27.202	103.710	1.00	11.93	L	C
ATOM	1021	N	CYS	L	134	-10.052	29.967	106.318	1.00	16.38	L	N
ATOM	1022	CA	CYS	L	134	-9.164	31.037	106.605	1.00	17.53	L	C
ATOM	1023	C	CYS	L	134	-7.833	30.655	105.938	1.00	16.58	L	C
ATOM	1024	O	CYS	L	134	-7.335	29.561	106.204	1.00	14.98	L	O
ATOM	1025	CB	CYS	L	134	-8.948	31.072	108.108	1.00	16.98	L	C
ATOM	1026	SG	CYS	L	134	-7.928	32.442	108.627	1.00	39.38	L	S
ATOM	1027	N	PHE	L	135	-7.314	31.512	105.063	1.00	15.50	L	N
ATOM	1028	CA	PHE	L	135	-5.972	31.311	104.479	1.00	15.01	L	C
ATOM	1029	C	PHE	L	135	-5.009	32.262	105.236	1.00	17.04	L	C
ATOM	1030	O	PHE	L	135	-5.343	33.413	105.482	1.00	18.37	L	O
ATOM	1031	CB	PHE	L	135	-5.953	31.730	102.997	1.00	15.31	L	C
ATOM	1032	CG	PHE	L	135	-6.719	30.784	102.083	1.00	12.44	L	C
ATOM	1033	CD1	PHE	L	135	-6.530	29.429	102.170	1.00	12.71	L	C

ATOM	1034	CD2	PHE	L	135	-7.604	31.263	101.147	1.00	14.37	L	C
ATOM	1035	CE1	PHE	L	135	-7.221	28.534	101.341	1.00	16.73	L	C
ATOM	1036	CE2	PHE	L	135	-8.312	30.383	100.294	1.00	19.45	L	C
ATOM	1037	CZ	PHE	L	135	-8.121	29.008	100.399	1.00	21.66	L	C
ATOM	1038	N	LEU	L	136	-3.795	31.794	105.502	1.00	18.77	L	N
ATOM	1039	CA	LEU	L	136	-2.784	32.558	106.211	1.00	17.29	L	C
ATOM	1040	C	LEU	L	136	-1.633	32.347	105.252	1.00	18.03	L	C
ATOM	1041	O	LEU	L	136	-1.013	31.271	105.214	1.00	20.82	L	O
ATOM	1042	CB	LEU	L	136	-2.528	31.937	107.580	1.00	15.90	L	C
ATOM	1043	CG	LEU	L	136	-3.800	31.929	108.451	1.00	17.81	L	C
ATOM	1044	CD1	LEU	L	136	-4.513	30.583	108.271	1.00	28.80	L	C
ATOM	1045	CD2	LEU	L	136	-3.447	32.085	109.904	1.00	11.22	L	C
ATOM	1046	N	ASN	L	137	-1.385	33.363	104.444	1.00	15.37	L	N
ATOM	1047	CA	ASN	L	137	-0.421	33.204	103.397	1.00	15.78	L	C
ATOM	1048	C	ASN	L	137	0.894	33.961	103.467	1.00	20.96	L	C
ATOM	1049	O	ASN	L	137	0.972	35.032	104.011	1.00	24.05	L	O
ATOM	1050	CB	ASN	L	137	-1.084	33.523	102.061	1.00	14.26	L	C
ATOM	1051	CG	ASN	L	137	-2.092	32.423	101.574	1.00	15.09	L	C
ATOM	1052	OD1	ASN	L	137	-2.866	32.668	100.681	1.00	27.52	L	O
ATOM	1053	ND2	ASN	L	137	-2.097	31.263	102.196	1.00	22.74	L	N
ATOM	1054	N	ASN	L	138	1.932	33.348	102.874	1.00	22.98	L	N
ATOM	1055	CA	ASN	L	138	3.265	33.911	102.768	1.00	19.90	L	C
ATOM	1056	C	ASN	L	138	3.928	34.495	104.025	1.00	21.41	L	C
ATOM	1057	O	ASN	L	138	4.332	35.646	104.061	1.00	20.42	L	O
ATOM	1058	CB	ASN	L	138	3.237	34.913	101.603	1.00	17.25	L	C
ATOM	1059	CG	ASN	L	138	2.971	34.225	100.280	1.00	21.54	L	C
ATOM	1060	OD1	ASN	L	138	1.863	33.812	100.006	1.00	29.62	L	O
ATOM	1061	ND2	ASN	L	138	4.008	34.077	99.461	1.00	31.95	L	N
ATOM	1062	N	PHE	L	139	4.073	33.665	105.062	1.00	20.62	L	N
ATOM	1063	CA	PHE	L	139	4.691	34.064	106.294	1.00	18.04	L	C
ATOM	1064	C	PHE	L	139	6.009	33.355	106.496	1.00	18.28	L	C
ATOM	1065	O	PHE	L	139	6.316	32.417	105.788	1.00	20.30	L	O
ATOM	1066	CB	PHE	L	139	3.727	33.800	107.512	1.00	18.19	L	C
ATOM	1067	CG	PHE	L	139	3.218	32.377	107.633	1.00	20.48	L	C
ATOM	1068	CD1	PHE	L	139	3.931	31.434	108.325	1.00	17.93	L	C
ATOM	1069	CD2	PHE	L	139	2.004	32.004	107.061	1.00	17.24	L	C
ATOM	1070	CE1	PHE	L	139	3.490	30.139	108.459	1.00	11.11	L	C
ATOM	1071	CE2	PHE	L	139	1.530	30.697	107.197	1.00	16.66	L	C
ATOM	1072	CZ	PHE	L	139	2.278	29.753	107.894	1.00	18.89	L	C
ATOM	1073	N	TYR	L	140	6.803	33.847	107.430	1.00	21.00	L	N
ATOM	1074	CA	TYR	L	140	8.085	33.240	107.797	1.00	20.95	L	C
ATOM	1075	C	TYR	L	140	8.437	33.747	109.186	1.00	22.51	L	C
ATOM	1076	O	TYR	L	140	8.305	34.940	109.476	1.00	21.26	L	O
ATOM	1077	CB	TYR	L	140	9.215	33.612	106.810	1.00	20.12	L	C
ATOM	1078	CG	TYR	L	140	10.461	32.818	107.134	1.00	21.24	L	C
ATOM	1079	CD1	TYR	L	140	11.314	33.233	108.144	1.00	11.93	L	C
ATOM	1080	CD2	TYR	L	140	10.719	31.607	106.502	1.00	19.61	L	C
ATOM	1081	CE1	TYR	L	140	12.376	32.481	108.535	1.00	12.05	L	C
ATOM	1082	CE2	TYR	L	140	11.797	30.823	106.901	1.00	11.86	L	C
ATOM	1083	CZ	TYR	L	140	12.615	31.290	107.930	1.00	16.01	L	C
ATOM	1084	OH	TYR	L	140	13.684	30.527	108.384	1.00	20.60	L	O
ATOM	1085	N	PRO	L	141	8.867	32.855	110.084	1.00	22.91	L	N
ATOM	1086	CA	PRO	L	141	9.072	31.399	109.974	1.00	23.17	L	C
ATOM	1087	C	PRO	L	141	7.800	30.595	109.882	1.00	22.64	L	C
ATOM	1088	O	PRO	L	141	6.705	31.153	109.928	1.00	22.66	L	O
ATOM	1089	CB	PRO	L	141	9.887	31.054	111.227	1.00	22.87	L	C
ATOM	1090	CG	PRO	L	141	9.422	32.054	112.197	1.00	25.55	L	C
ATOM	1091	CD	PRO	L	141	9.306	33.344	111.403	1.00	21.81	L	C
ATOM	1092	N	LYS	L	142	7.957	29.281	109.762	1.00	22.22	L	N
ATOM	1093	CA	LYS	L	142	6.803	28.390	109.525	1.00	22.07	L	C
ATOM	1094	C	LYS	L	142	5.852	28.206	110.707	1.00	20.25	L	C

ATOM	1095	O	LYS	L	142	4.730	27.743	110.528	1.00	19.43	L	O
ATOM	1096	CB	LYS	L	142	7.291	27.011	109.176	1.00	24.45	L	C
ATOM	1097	CG	LYS	L	142	7.871	26.341	110.401	1.00	30.59	L	C
ATOM	1098	CD	LYS	L	142	8.364	24.905	110.124	1.00	38.68	L	C
ATOM	1099	CE	LYS	L	142	9.132	24.425	111.369	1.00	47.96	L	C
ATOM	1100	NZ	LYS	L	142	9.840	23.118	111.175	1.00	68.01	L	N
ATOM	1101	N	ASP	L	143	6.286	28.540	111.908	1.00	22.51	L	N
ATOM	1102	CA	ASP	L	143	5.391	28.282	113.048	1.00	20.75	L	C
ATOM	1103	C	ASP	L	143	4.215	29.252	113.125	1.00	23.08	L	C
ATOM	1104	O	ASP	L	143	4.351	30.472	113.035	1.00	24.43	L	O
ATOM	1105	CB	ASP	L	143	6.192	28.301	114.353	1.00	19.86	L	C
ATOM	1106	CG	ASP	L	143	7.574	27.689	114.178	1.00	27.47	L	C
ATOM	1107	OD1	ASP	L	143	8.549	28.452	113.962	1.00	27.50	L	O
ATOM	1108	OD2	ASP	L	143	7.660	26.448	114.240	1.00	35.11	L	O
ATOM	1109	N	ILE	L	144	3.018	28.699	113.301	1.00	22.13	L	N
ATOM	1110	CA	ILE	L	144	1.855	29.567	113.387	1.00	21.65	L	C
ATOM	1111	C	ILE	L	144	0.733	28.773	114.084	1.00	22.39	L	C
ATOM	1112	O	ILE	L	144	0.724	27.530	114.087	1.00	25.88	L	O
ATOM	1113	CB	ILE	L	144	1.448	29.993	111.951	1.00	23.73	L	C
ATOM	1114	CG1	ILE	L	144	0.456	31.143	111.976	1.00	20.91	L	C
ATOM	1115	CG2	ILE	L	144	0.978	28.814	111.199	1.00	21.02	L	C
ATOM	1116	CD1	ILE	L	144	0.324	31.861	110.617	1.00	23.82	L	C
ATOM	1117	N	ASN	L	145	-0.164	29.493	114.744	1.00	23.50	L	N
ATOM	1118	CA	ASN	L	145	-1.252	28.793	115.442	1.00	29.06	L	C
ATOM	1119	C	ASN	L	145	-2.531	29.541	115.032	1.00	28.27	L	C
ATOM	1120	O	ASN	L	145	-2.530	30.760	114.907	1.00	29.90	L	O
ATOM	1121	CB	ASN	L	145	-1.031	28.854	116.956	1.00	31.88	L	C
ATOM	1122	CG	ASN	L	145	-1.901	27.857	117.722	1.00	50.47	L	C
ATOM	1123	OD1	ASN	L	145	-2.445	28.192	118.780	1.00	64.13	L	O
ATOM	1124	ND2	ASN	L	145	-2.029	26.627	117.201	1.00	46.82	L	N
ATOM	1125	N	VAL	L	146	-3.595	28.796	114.797	1.00	26.85	L	N
ATOM	1126	CA	VAL	L	146	-4.855	29.391	114.379	1.00	24.01	L	C
ATOM	1127	C	VAL	L	146	-5.892	28.978	115.396	1.00	21.85	L	C
ATOM	1128	O	VAL	L	146	-5.903	27.838	115.829	1.00	25.28	L	O
ATOM	1129	CB	VAL	L	146	-5.275	28.862	112.986	1.00	22.10	L	C
ATOM	1130	CG1	VAL	L	146	-6.686	29.332	112.602	1.00	20.92	L	C
ATOM	1131	CG2	VAL	L	146	-4.293	29.454	111.948	1.00	29.40	L	C
ATOM	1132	N	LYS	L	147	-6.713	29.932	115.788	1.00	20.98	L	N
ATOM	1133	CA	LYS	L	147	-7.780	29.647	116.732	1.00	23.41	L	C
ATOM	1134	C	LYS	L	147	-9.099	30.151	116.083	1.00	20.29	L	C
ATOM	1135	O	LYS	L	147	-9.153	31.253	115.542	1.00	17.79	L	O
ATOM	1136	CB	LYS	L	147	-7.504	30.402	118.034	1.00	19.81	L	C
ATOM	1137	CG	LYS	L	147	-8.480	30.104	119.109	1.00	34.97	L	C
ATOM	1138	CD	LYS	L	147	-8.242	31.037	120.294	1.00	50.25	L	C
ATOM	1139	CE	LYS	L	147	-6.825	30.891	120.876	1.00	56.37	L	C
ATOM	1140	NZ	LYS	L	147	-6.704	31.817	122.085	1.00	59.80	L	N
ATOM	1141	N	TRP	L	148	-10.139	29.328	116.116	1.00	20.17	L	N
ATOM	1142	CA	TRP	L	148	-11.445	29.785	115.629	1.00	18.95	L	C
ATOM	1143	C	TRP	L	148	-12.362	30.181	116.806	1.00	21.21	L	C
ATOM	1144	O	TRP	L	148	-12.325	29.559	117.838	1.00	20.59	L	O
ATOM	1145	CB	TRP	L	148	-12.122	28.657	114.890	1.00	15.88	L	C
ATOM	1146	CG	TRP	L	148	-11.490	28.422	113.546	1.00	21.74	L	C
ATOM	1147	CD1	TRP	L	148	-10.513	27.487	113.208	1.00	16.65	L	C
ATOM	1148	CD2	TRP	L	148	-11.855	29.085	112.337	1.00	22.15	L	C
ATOM	1149	NE1	TRP	L	148	-10.281	27.540	111.832	1.00	22.24	L	N
ATOM	1150	CE2	TRP	L	148	-11.087	28.513	111.284	1.00	21.65	L	C
ATOM	1151	CE3	TRP	L	148	-12.756	30.111	112.040	1.00	14.25	L	C
ATOM	1152	CZ2	TRP	L	148	-11.205	28.943	109.950	1.00	24.13	L	C
ATOM	1153	CZ3	TRP	L	148	-12.884	30.542	110.716	1.00	20.29	L	C
ATOM	1154	CH2	TRP	L	148	-12.106	29.955	109.676	1.00	19.03	L	C
ATOM	1155	N	LYS	L	149	-13.174	31.215	116.623	1.00	22.89	L	N

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	ATOM	1156	CA	LYS	L	149	-14.124	31.636	117.655	1.00	21.94	L C
	ATOM	1157	C	LYS	L	149	-15.427	31.917	116.932	1.00	22.02	L C
	ATOM	1158	O	LYS	L	149	-15.431	32.431	115.803	1.00	25.88	L O
	ATOM	1159	CB	LYS	L	149	-13.675	32.909	118.375	1.00	22.50	L C
5	ATOM	1160	CG	LYS	L	149	-12.456	32.712	119.265	1.00	29.41	L C
	ATOM	1161	CD	LYS	L	149	-11.972	34.038	119.890	1.00	36.17	L C
	ATOM	1162	CE	LYS	L	149	-10.853	33.759	120.883	1.00	47.79	L C
	ATOM	1163	NZ	LYS	L	149	-10.191	35.022	121.349	1.00	58.02	L N
	ATOM	1164	N	ILE	L	150	-16.534	31.563	117.575	1.00	21.85	L N
10	ATOM	1165	CA	ILE	L	150	-17.842	31.808	116.995	1.00	19.42	L C
	ATOM	1166	C	ILE	L	150	-18.603	32.519	118.121	1.00	20.57	L C
	ATOM	1167	O	ILE	L	150	-18.735	31.982	119.232	1.00	22.05	L O
	ATOM	1168	CB	ILE	L	150	-18.527	30.516	116.639	1.00	17.66	L C
	ATOM	1169	CG1	ILE	L	150	-17.835	29.868	115.414	1.00	15.39	L C
15	ATOM	1170	CG2	ILE	L	150	-20.013	30.809	116.281	1.00	15.45	L C
	ATOM	1171	CD1	ILE	L	150	-18.484	28.535	114.955	1.00	5.50	L C
	ATOM	1172	N	ASP	L	151	-19.030	33.734	117.831	1.00	20.49	L N
	ATOM	1173	CA	ASP	L	151	-19.715	34.559	118.815	1.00	20.94	L C
	ATOM	1174	C	ASP	L	151	-18.815	34.701	120.052	1.00	24.12	L C
20	ATOM	1175	O	ASP	L	151	-19.304	34.789	121.189	1.00	24.25	L O
	ATOM	1176	CB	ASP	L	151	-21.059	33.894	119.175	1.00	19.59	L C
	ATOM	1177	CG	ASP	L	151	-22.132	34.129	118.102	1.00	25.62	L C
	ATOM	1178	OD1	ASP	L	151	-21.968	35.055	117.272	1.00	27.32	L O
	ATOM	1179	OD2	ASP	L	151	-23.152	33.416	118.110	1.00	31.24	L O
25	ATOM	1180	N	GLY	L	152	-17.493	34.685	119.850	1.00	19.02	L N
	ATOM	1181	CA	GLY	L	152	-16.617	34.845	120.990	1.00	23.51	L C
	ATOM	1182	C	GLY	L	152	-16.141	33.602	121.724	1.00	28.41	L C
	ATOM	1183	O	GLY	L	152	-15.242	33.688	122.577	1.00	32.84	L O
	ATOM	1184	N	SER	L	153	-16.732	32.458	121.438	1.00	28.85	L N
30	ATOM	1185	CA	SER	L	153	-16.307	31.209	122.065	1.00	29.03	L C
	ATOM	1186	C	SER	L	153	-15.417	30.391	121.122	1.00	28.97	L C
	ATOM	1187	O	SER	L	153	-15.757	30.161	119.960	1.00	26.39	L O
	ATOM	1188	CB	SER	L	153	-17.505	30.360	122.471	1.00	25.23	L C
	ATOM	1189	OG	SER	L	153	-18.196	31.006	123.519	1.00	30.72	L O
35	ATOM	1190	N	GLU	L	154	-14.283	29.942	121.643	1.00	28.12	L N
	ATOM	1191	CA	GLU	L	154	-13.380	29.141	120.842	1.00	31.33	L C
	ATOM	1192	C	GLU	L	154	-14.031	27.826	120.432	1.00	31.48	L C
	ATOM	1193	O	GLU	L	154	-14.753	27.175	121.200	1.00	35.29	L O
	ATOM	1194	CB	GLU	L	154	-12.091	28.879	121.635	1.00	32.78	L C
40	ATOM	1195	CG	GLU	L	154	-11.053	28.084	120.877	1.00	40.84	L C
	ATOM	1196	CD	GLU	L	154	-9.769	27.927	121.683	1.00	43.42	L C
	ATOM	1197	OE1	GLU	L	154	-9.576	28.679	122.656	1.00	47.11	L O
	ATOM	1198	OE2	GLU	L	154	-8.966	27.061	121.335	1.00	52.41	L O
	ATOM	1199	N	ARG	L	155	-13.793	27.435	119.196	1.00	28.45	L N
45	ATOM	1200	CA	ARG	L	155	-14.309	26.189	118.675	1.00	30.91	L C
	ATOM	1201	C	ARG	L	155	-13.115	25.406	118.252	1.00	32.16	L C
	ATOM	1202	O	ARG	L	155	-12.374	25.876	117.405	1.00	32.66	L O
	ATOM	1203	CB	ARG	L	155	-15.183	26.419	117.448	1.00	28.52	L C
	ATOM	1204	CG	ARG	L	155	-16.380	27.231	117.799	1.00	37.92	L C
50	ATOM	1205	CD	ARG	L	155	-17.336	26.438	118.698	1.00	31.38	L C
	ATOM	1206	NE	ARG	L	155	-18.612	27.118	118.747	1.00	33.65	L N
	ATOM	1207	CZ	ARG	L	155	-19.691	26.762	118.062	1.00	17.41	L C
	ATOM	1208	NH1	ARG	L	155	-19.685	25.711	117.260	1.00	27.68	L N
	ATOM	1209	NH2	ARG	L	155	-20.780	27.482	118.185	1.00	25.10	L N
55	ATOM	1210	N	GLN	L	156	-12.935	24.221	118.829	1.00	34.52	L N
	ATOM	1211	CA	GLN	L	156	-11.788	23.395	118.478	1.00	35.80	L C
	ATOM	1212	C	GLN	L	156	-12.127	22.210	117.605	1.00	36.43	L C
	ATOM	1213	O	GLN	L	156	-11.293	21.749	116.805	1.00	39.56	L O
	ATOM	1214	CB	GLN	L	156	-11.078	22.906	119.743	1.00	33.20	L C
60	ATOM	1215	CG	GLN	L	156	-10.673	24.010	120.664	1.00	47.03	L C
	ATOM	1216	CD	GLN	L	156	-9.873	23.502	121.845	1.00	57.66	L C

ATOM	1217	OE1	GLN	L	156	-10.360	22.685	122.634	1.00	72.71	L	O
ATOM	1218	NE2	GLN	L	156	-8.643	23.981	121.977	1.00	63.16	L	N
ATOM	1219	N	ASN	L	157	-13.341	21.698	117.723	1.00	38.17	L	N
ATOM	1220	CA	ASN	L	157	-13.708	20.539	116.913	1.00	38.15	L	C
ATOM	1221	C	ASN	L	157	-14.121	20.890	115.474	1.00	35.01	L	C
ATOM	1222	O	ASN	L	157	-14.616	21.993	115.235	1.00	34.08	L	O
ATOM	1223	CB	ASN	L	157	-14.866	19.812	117.563	1.00	43.26	L	C
ATOM	1224	CG	ASN	L	157	-14.457	19.007	118.785	1.00	57.31	L	C
ATOM	1225	OD1	ASN	L	157	-15.297	18.309	119.355	1.00	74.40	L	O
ATOM	1226	ND2	ASN	L	157	-13.175	19.089	119.191	1.00	54.46	L	N
ATOM	1227	N	GLY	L	158	-13.987	19.922	114.559	1.00	32.01	L	N
ATOM	1228	CA	GLY	L	158	-14.353	20.118	113.154	1.00	26.62	L	C
ATOM	1229	C	GLY	L	158	-13.389	21.035	112.359	1.00	26.13	L	C
ATOM	1230	O	GLY	L	158	-13.795	21.668	111.391	1.00	26.96	L	O
ATOM	1231	N	VAL	L	159	-12.136	21.114	112.781	1.00	22.23	L	N
ATOM	1232	CA	VAL	L	159	-11.148	21.959	112.106	1.00	23.71	L	C
ATOM	1233	C	VAL	L	159	-10.165	21.101	111.316	1.00	25.37	L	C
ATOM	1234	O	VAL	L	159	-9.706	20.080	111.799	1.00	34.95	L	O
ATOM	1235	CB	VAL	L	159	-10.376	22.820	113.140	1.00	19.67	L	C
ATOM	1236	CG1	VAL	L	159	-9.279	23.655	112.436	1.00	26.30	L	C
ATOM	1237	CG2	VAL	L	159	-11.327	23.737	113.878	1.00	16.36	L	C
ATOM	1238	N	LEU	L	160	-9.892	21.467	110.073	1.00	29.08	L	N
ATOM	1239	CA	LEU	L	160	-8.948	20.728	109.219	1.00	29.44	L	C
ATOM	1240	C	LEU	L	160	-7.885	21.763	108.832	1.00	24.79	L	C
ATOM	1241	O	LEU	L	160	-8.238	22.824	108.320	1.00	25.27	L	O
ATOM	1242	CB	LEU	L	160	-9.658	20.233	107.946	1.00	29.93	L	C
ATOM	1243	CG	LEU	L	160	-8.866	19.400	106.916	1.00	41.02	L	C
ATOM	1244	CD1	LEU	L	160	-9.801	18.461	106.149	1.00	38.99	L	C
ATOM	1245	CD2	LEU	L	160	-8.126	20.321	105.949	1.00	53.32	L	C
ATOM	1246	N	ASN	L	161	-6.625	21.455	109.089	1.00	21.11	L	N
ATOM	1247	CA	ASN	L	161	-5.543	22.387	108.800	1.00	19.49	L	C
ATOM	1248	C	ASN	L	161	-4.602	21.752	107.801	1.00	18.69	L	C
ATOM	1249	O	ASN	L	161	-4.409	20.538	107.838	1.00	21.55	L	O
ATOM	1250	CB	ASN	L	161	-4.759	22.717	110.086	1.00	19.31	L	C
ATOM	1251	CG	ASN	L	161	-5.511	23.651	111.029	1.00	12.67	L	C
ATOM	1252	OD1	ASN	L	161	-6.298	24.476	110.607	1.00	21.51	L	O
ATOM	1253	ND2	ASN	L	161	-5.232	23.539	112.311	1.00	27.96	L	N
ATOM	1254	N	SER	L	162	-4.045	22.557	106.886	1.00	17.66	L	N
ATOM	1255	CA	SER	L	162	-3.099	22.029	105.898	1.00	20.32	L	C
ATOM	1256	C	SER	L	162	-2.031	23.129	105.737	1.00	20.31	L	C
ATOM	1257	O	SER	L	162	-2.347	24.344	105.761	1.00	20.48	L	O
ATOM	1258	CB	SER	L	162	-3.766	21.771	104.569	1.00	19.36	L	C
ATOM	1259	OG	SER	L	162	-2.842	21.096	103.721	1.00	30.64	L	O
ATOM	1260	N	TRP	L	163	-0.776	22.711	105.539	1.00	22.96	L	N
ATOM	1261	CA	TRP	L	163	0.320	23.662	105.444	1.00	17.20	L	C
ATOM	1262	C	TRP	L	163	1.127	23.380	104.181	1.00	16.75	L	C
ATOM	1263	O	TRP	L	163	1.325	22.217	103.821	1.00	20.55	L	O
ATOM	1264	CB	TRP	L	163	1.231	23.485	106.662	1.00	13.33	L	C
ATOM	1265	CG	TRP	L	163	0.544	23.657	108.029	1.00	22.80	L	C
ATOM	1266	CD1	TRP	L	163	0.495	24.786	108.763	1.00	19.32	L	C
ATOM	1267	CD2	TRP	L	163	-0.167	22.651	108.791	1.00	26.71	L	C
ATOM	1268	NE1	TRP	L	163	-0.199	24.560	109.945	1.00	30.77	L	N
ATOM	1269	CE2	TRP	L	163	-0.614	23.259	109.977	1.00	26.86	L	C
ATOM	1270	CE3	TRP	L	163	-0.463	21.302	108.575	1.00	32.13	L	C
ATOM	1271	CZ2	TRP	L	163	-1.350	22.569	110.961	1.00	26.97	L	C
ATOM	1272	CZ3	TRP	L	163	-1.199	20.595	109.565	1.00	31.68	L	C
ATOM	1273	CH2	TRP	L	163	-1.629	21.243	110.738	1.00	37.55	L	C
ATOM	1274	N	THR	L	164	1.600	24.416	103.506	1.00	19.49	L	N
ATOM	1275	CA	THR	L	164	2.412	24.192	102.285	1.00	18.40	L	C
ATOM	1276	C	THR	L	164	3.871	24.018	102.682	1.00	19.81	L	C
ATOM	1277	O	THR	L	164	4.263	24.324	103.801	1.00	18.48	L	O

ATOM	1278	CB	THR	L	164	2.367	25.378	101.286	1.00	16.10	L	C
ATOM	1279	OG1	THR	L	164	2.767	26.598	101.961	1.00	22.69	L	O
ATOM	1280	CG2	THR	L	164	0.978	25.562	100.694	1.00	20.82	L	C
ATOM	1281	N	ASP	L	165	4.664	23.505	101.739	1.00	22.96	L	N
ATOM	1282	CA	ASP	L	165	6.095	23.397	101.939	1.00	23.19	L	C
ATOM	1283	C	ASP	L	165	6.590	24.820	101.584	1.00	18.88	L	C
ATOM	1284	O	ASP	L	165	5.850	25.633	101.007	1.00	18.60	L	O
ATOM	1285	CB	ASP	L	165	6.699	22.432	100.915	1.00	30.01	L	C
ATOM	1286	CG	ASP	L	165	6.309	20.986	101.155	1.00	40.64	L	C
ATOM	1287	OD1	ASP	L	165	5.882	20.384	100.158	1.00	52.97	L	O
ATOM	1288	OD2	ASP	L	165	6.452	20.460	102.298	1.00	38.53	L	O
ATOM	1289	N	GLN	L	166	7.848	25.089	101.885	1.00	13.81	L	N
ATOM	1290	CA	GLN	L	166	8.415	26.424	101.625	1.00	12.21	L	C
ATOM	1291	C	GLN	L	166	8.333	26.806	100.156	1.00	12.81	L	C
ATOM	1292	O	GLN	L	166	8.604	26.014	99.290	1.00	16.65	L	O
ATOM	1293	CB	GLN	L	166	9.845	26.458	102.164	1.00	12.35	L	C
ATOM	1294	CG	GLN	L	166	10.442	27.875	102.139	1.00	12.75	L	C
ATOM	1295	CD	GLN	L	166	11.704	27.936	102.959	1.00	16.64	L	C
ATOM	1296	OE1	GLN	L	166	12.504	26.974	102.995	1.00	22.95	L	O
ATOM	1297	NE2	GLN	L	166	11.900	29.050	103.628	1.00	15.16	L	N
ATOM	1298	N	ASP	L	167	7.920	28.036	99.874	1.00	15.54	L	N
ATOM	1299	CA	ASP	L	167	7.768	28.520	98.523	1.00	17.06	L	C
ATOM	1300	C	ASP	L	167	9.168	28.649	97.864	1.00	17.69	L	C
ATOM	1301	O	ASP	L	167	10.151	29.093	98.482	1.00	17.79	L	O
ATOM	1302	CB	ASP	L	167	7.095	29.908	98.508	1.00	13.53	L	C
ATOM	1303	CG	ASP	L	167	6.785	30.356	97.119	1.00	22.46	L	C
ATOM	1304	OD1	ASP	L	167	5.750	29.917	96.602	1.00	24.43	L	O
ATOM	1305	OD2	ASP	L	167	7.597	31.127	96.514	1.00	25.80	L	O
ATOM	1306	N	SER	L	168	9.191	28.257	96.607	1.00	21.93	L	N
ATOM	1307	CA	SER	L	168	10.385	28.290	95.761	1.00	24.57	L	C
ATOM	1308	C	SER	L	168	10.858	29.659	95.322	1.00	23.47	L	C
ATOM	1309	O	SER	L	168	11.999	29.782	94.879	1.00	25.30	L	O
ATOM	1310	CB	SER	L	168	10.133	27.465	94.480	1.00	17.84	L	C
ATOM	1311	OG	SER	L	168	10.011	26.117	94.892	1.00	38.05	L	O
ATOM	1312	N	LYS	L	169	10.005	30.657	95.398	1.00	20.49	L	N
ATOM	1313	CA	LYS	L	169	10.397	31.989	94.958	1.00	19.32	L	C
ATOM	1314	C	LYS	L	169	10.616	32.922	96.114	1.00	20.10	L	C
ATOM	1315	O	LYS	L	169	11.610	33.623	96.145	1.00	19.99	L	O
ATOM	1316	CB	LYS	L	169	9.319	32.574	94.021	1.00	21.29	L	C
ATOM	1317	CG	LYS	L	169	9.239	31.821	92.667	1.00	30.17	L	C
ATOM	1318	CD	LYS	L	169	8.116	32.333	91.773	1.00	44.01	L	C
ATOM	1319	CE	LYS	L	169	8.244	31.763	90.356	1.00	57.38	L	C
ATOM	1320	NZ	LYS	L	169	7.258	32.403	89.414	1.00	70.77	L	N
ATOM	1321	N	ASP	L	170	9.699	32.972	97.083	1.00	23.16	L	N
ATOM	1322	CA	ASP	L	170	9.915	33.914	98.176	1.00	20.43	L	C
ATOM	1323	C	ASP	L	170	10.240	33.309	99.528	1.00	22.49	L	C
ATOM	1324	O	ASP	L	170	10.345	34.018	100.535	1.00	24.06	L	O
ATOM	1325	CB	ASP	L	170	8.719	34.874	98.269	1.00	23.52	L	C
ATOM	1326	CG	ASP	L	170	7.420	34.180	98.769	1.00	28.59	L	C
ATOM	1327	OD1	ASP	L	170	7.457	33.006	99.213	1.00	28.25	L	O
ATOM	1328	OD2	ASP	L	170	6.362	34.859	98.753	1.00	32.02	L	O
ATOM	1329	N	SER	L	171	10.437	31.980	99.555	1.00	22.30	L	N
ATOM	1330	CA	SER	L	171	10.854	31.272	100.771	1.00	19.54	L	C
ATOM	1331	C	SER	L	171	9.905	31.416	101.967	1.00	18.91	L	C
ATOM	1332	O	SER	L	171	10.332	31.277	103.131	1.00	20.84	L	O
ATOM	1333	CB	SER	L	171	12.260	31.715	101.193	1.00	16.86	L	C
ATOM	1334	OG	SER	L	171	13.092	31.639	100.049	1.00	22.64	L	O
ATOM	1335	N	THR	L	172	8.629	31.627	101.661	1.00	17.19	L	N
ATOM	1336	CA	THR	L	172	7.634	31.745	102.747	1.00	17.27	L	C
ATOM	1337	C	THR	L	172	6.824	30.428	102.837	1.00	15.12	L	C
ATOM	1338	O	THR	L	172	6.950	29.534	101.988	1.00	13.25	L	O

ATOM	1339	CB	THR	L	172	6.619	32.896	102.488	1.00	15.96	L	C
ATOM	1340	OG1	THR	L	172	5.904	32.660	101.251	1.00	24.29	L	O
ATOM	1341	CG2	THR	L	172	7.382	34.278	102.381	1.00	10.43	L	C
ATOM	1342	N	TYR	L	173	5.959	30.374	103.849	1.00	14.89	L	N
ATOM	1343	CA	TYR	L	173	5.091	29.260	104.100	1.00	13.98	L	C
ATOM	1344	C	TYR	L	173	3.666	29.799	104.107	1.00	15.99	L	C
ATOM	1345	O	TYR	L	173	3.442	31.018	104.327	1.00	11.83	L	O
ATOM	1346	CB	TYR	L	173	5.366	28.683	105.488	1.00	12.06	L	C
ATOM	1347	CG	TYR	L	173	6.732	28.076	105.588	1.00	19.95	L	C
ATOM	1348	CD1	TYR	L	173	7.827	28.832	106.026	1.00	18.44	L	C
ATOM	1349	CD2	TYR	L	173	6.937	26.749	105.215	1.00	12.63	L	C
ATOM	1350	CE1	TYR	L	173	9.092	28.269	106.067	1.00	28.53	L	C
ATOM	1351	CE2	TYR	L	173	8.216	26.174	105.287	1.00	20.24	L	C
ATOM	1352	CZ	TYR	L	173	9.276	26.951	105.713	1.00	20.82	L	C
ATOM	1353	OH	TYR	L	173	10.530	26.361	105.841	1.00	31.88	L	O
ATOM	1354	N	SER	L	174	2.706	28.892	103.891	1.00	17.08	L	N
ATOM	1355	CA	SER	L	174	1.281	29.276	103.906	1.00	14.79	L	C
ATOM	1356	C	SER	L	174	0.465	28.199	104.605	1.00	15.22	L	C
ATOM	1357	O	SER	L	174	0.924	27.065	104.737	1.00	18.05	L	O
ATOM	1358	CB	SER	L	174	0.770	29.443	102.491	1.00	16.51	L	C
ATOM	1359	OG	SER	L	174	1.300	30.632	101.906	1.00	16.19	L	O
ATOM	1360	N	MET	L	175	-0.753	28.535	105.046	1.00	16.19	L	N
ATOM	1361	CA	MET	L	175	-1.562	27.533	105.762	1.00	13.01	L	C
ATOM	1362	C	MET	L	175	-3.020	27.781	105.431	1.00	14.56	L	C
ATOM	1363	O	MET	L	175	-3.417	28.949	105.198	1.00	17.50	L	O
ATOM	1364	CB	MET	L	175	-1.381	27.711	107.296	1.00	13.61	L	C
ATOM	1365	CG	MET	L	175	-2.422	26.930	108.210	1.00	11.50	L	C
ATOM	1366	SD	MET	L	175	-2.089	27.301	109.942	1.00	19.84	L	S
ATOM	1367	CE	MET	L	175	-3.279	26.117	110.822	1.00	19.37	L	C
ATOM	1368	N	SER	L	176	-3.803	26.699	105.418	1.00	12.14	L	N
ATOM	1369	CA	SER	L	176	-5.268	26.830	105.196	1.00	12.43	L	C
ATOM	1370	C	SER	L	176	-5.934	26.202	106.436	1.00	14.52	L	C
ATOM	1371	O	SER	L	176	-5.486	25.146	106.909	1.00	13.64	L	O
ATOM	1372	CB	SER	L	176	-5.673	26.020	103.982	1.00	11.93	L	C
ATOM	1373	OG	SER	L	176	-7.084	25.984	103.817	1.00	16.86	L	O
ATOM	1374	N	SER	L	177	-6.986	26.818	106.972	1.00	14.35	L	N
ATOM	1375	CA	SER	L	177	-7.641	26.170	108.128	1.00	14.38	L	C
ATOM	1376	C	SER	L	177	-9.113	26.219	107.753	1.00	16.20	L	C
ATOM	1377	O	SER	L	177	-9.583	27.279	107.371	1.00	19.72	L	O
ATOM	1378	CB	SER	L	177	-7.412	26.992	109.379	1.00	10.63	L	C
ATOM	1379	OG	SER	L	177	-7.994	26.377	110.518	1.00	18.28	L	O
ATOM	1380	N	THR	L	178	-9.823	25.089	107.862	1.00	18.72	L	N
ATOM	1381	CA	THR	L	178	-11.227	25.063	107.512	1.00	19.80	L	C
ATOM	1382	C	THR	L	178	-12.029	24.577	108.721	1.00	19.45	L	C
ATOM	1383	O	THR	L	178	-11.728	23.487	109.262	1.00	19.44	L	O
ATOM	1384	CB	THR	L	178	-11.483	24.064	106.371	1.00	17.81	L	C
ATOM	1385	OG1	THR	L	178	-10.737	24.443	105.195	1.00	20.86	L	O
ATOM	1386	CG2	THR	L	178	-12.952	24.049	106.014	1.00	20.63	L	C
ATOM	1387	N	LEU	L	179	-13.001	25.380	109.168	1.00	16.56	L	N
ATOM	1388	CA	LEU	L	179	-13.874	24.958	110.279	1.00	19.50	L	C
ATOM	1389	C	LEU	L	179	-15.197	24.470	109.628	1.00	19.78	L	C
ATOM	1390	O	LEU	L	179	-15.884	25.243	108.957	1.00	19.68	L	O
ATOM	1391	CB	LEU	L	179	-14.157	26.132	111.207	1.00	18.74	L	C
ATOM	1392	CG	LEU	L	179	-15.233	25.971	112.315	1.00	19.17	L	C
ATOM	1393	CD1	LEU	L	179	-14.778	24.899	113.287	1.00	22.85	L	C
ATOM	1394	CD2	LEU	L	179	-15.411	27.330	113.049	1.00	13.61	L	C
ATOM	1395	N	THR	L	180	-15.558	23.209	109.836	1.00	16.39	L	N
ATOM	1396	CA	THR	L	180	-16.778	22.728	109.226	1.00	22.47	L	C
ATOM	1397	C	THR	L	180	-17.911	22.551	110.243	1.00	22.40	L	C
ATOM	1398	O	THR	L	180	-17.733	22.007	111.335	1.00	22.24	L	O
ATOM	1399	CB	THR	L	180	-16.510	21.437	108.450	1.00	24.69	L	C

	ATOM	1400	OG1	THR	L	180	-15.554	21.720	107.419	1.00	28.70	L	O
	ATOM	1401	CG2	THR	L	180	-17.819	20.902	107.799	1.00	25.60	L	C
	ATOM	1402	N	LEU	L	181	-19.061	23.109	109.883	1.00	25.76	L	N
	ATOM	1403	CA	LEU	L	181	-20.256	23.079	110.722	1.00	23.80	L	C
5	ATOM	1404	C	LEU	L	181	-21.404	22.595	109.874	1.00	22.40	L	C
	ATOM	1405	O	LEU	L	181	-21.281	22.491	108.654	1.00	27.54	L	O
	ATOM	1406	CB	LEU	L	181	-20.618	24.486	111.158	1.00	20.99	L	C
	ATOM	1407	CG	LEU	L	181	-19.507	25.352	111.691	1.00	21.11	L	C
	ATOM	1408	CD1	LEU	L	181	-19.910	26.786	111.792	1.00	18.26	L	C
10	ATOM	1409	CD2	LEU	L	181	-19.133	24.735	113.056	1.00	35.93	L	C
	ATOM	1410	N	THR	L	182	-22.537	22.342	110.524	1.00	21.49	L	N
	ATOM	1411	CA	THR	L	182	-23.734	21.983	109.771	1.00	21.66	L	C
	ATOM	1412	C	THR	L	182	-24.299	23.325	109.392	1.00	18.67	L	C
	ATOM	1413	O	THR	L	182	-23.964	24.340	110.009	1.00	17.07	L	O
15	ATOM	1414	CB	THR	L	182	-24.819	21.226	110.648	1.00	20.54	L	C
	ATOM	1415	OG1	THR	L	182	-25.233	22.056	111.724	1.00	19.08	L	O
	ATOM	1416	CG2	THR	L	182	-24.250	19.974	111.210	1.00	19.23	L	C
	ATOM	1417	N	LYS	L	183	-25.161	23.332	108.377	1.00	22.53	L	N
	ATOM	1418	CA	LYS	L	183	-25.817	24.538	107.953	1.00	27.93	L	C
20	ATOM	1419	C	LYS	L	183	-26.611	25.161	109.111	1.00	28.40	L	C
	ATOM	1420	O	LYS	L	183	-26.590	26.367	109.326	1.00	28.75	L	O
	ATOM	1421	CB	LYS	L	183	-26.777	24.222	106.814	1.00	24.85	L	C
	ATOM	1422	CG	LYS	L	183	-27.654	25.400	106.442	1.00	38.68	L	C
	ATOM	1423	CD	LYS	L	183	-28.739	24.912	105.465	1.00	51.46	L	C
25	ATOM	1424	CE	LYS	L	183	-29.711	26.005	105.066	1.00	61.22	L	C
	ATOM	1425	NZ	LYS	L	183	-29.183	26.879	103.976	1.00	65.88	L	N
	ATOM	1426	N	ASP	L	184	-27.335	24.320	109.825	1.00	28.42	L	N
	ATOM	1427	CA	ASP	L	184	-28.132	24.787	110.967	1.00	30.29	L	C
	ATOM	1428	C	ASP	L	184	-27.275	25.431	112.047	1.00	27.78	L	C
30	ATOM	1429	O	ASP	L	184	-27.641	26.480	112.605	1.00	26.36	L	O
	ATOM	1430	CB	ASP	L	184	-28.909	23.613	111.550	1.00	32.41	L	C
	ATOM	1431	CG	ASP	L	184	-30.029	23.164	110.615	1.00	47.03	L	C
	ATOM	1432	OD1	ASP	L	184	-30.432	23.971	109.744	1.00	50.38	L	O
	ATOM	1433	OD2	ASP	L	184	-30.492	22.017	110.752	1.00	57.39	L	O
35	ATOM	1434	N	GLU	L	185	-26.126	24.823	112.341	1.00	26.34	L	N
	ATOM	1435	CA	GLU	L	185	-25.239	25.406	113.396	1.00	22.33	L	C
	ATOM	1436	C	GLU	L	185	-24.726	26.743	112.905	1.00	21.73	L	C
	ATOM	1437	O	GLU	L	185	-24.747	27.754	113.623	1.00	19.74	L	O
	ATOM	1438	CB	GLU	L	185	-24.076	24.429	113.729	1.00	22.69	L	C
40	ATOM	1439	CG	GLU	L	185	-22.917	25.082	114.549	1.00	23.70	L	C
	ATOM	1440	CD	GLU	L	185	-23.294	25.438	116.017	1.00	24.94	L	C
	ATOM	1441	OE1	GLU	L	185	-24.490	25.392	116.384	1.00	27.91	L	O
	ATOM	1442	OE2	GLU	L	185	-22.395	25.779	116.802	1.00	27.17	L	O
	ATOM	1443	N	TYR	L	186	-24.296	26.772	111.637	1.00	20.59	L	N
45	ATOM	1444	CA	TYR	L	186	-23.812	28.003	111.033	1.00	20.72	L	C
	ATOM	1445	C	TYR	L	186	-24.884	29.096	111.135	1.00	21.32	L	C
	ATOM	1446	O	TYR	L	186	-24.594	30.251	111.475	1.00	19.97	L	O
	ATOM	1447	CB	TYR	L	186	-23.443	27.769	109.565	1.00	21.88	L	C
	ATOM	1448	CG	TYR	L	186	-23.034	29.037	108.828	1.00	20.13	L	C
50	ATOM	1449	CD1	TYR	L	186	-21.856	29.713	109.171	1.00	16.10	L	C
	ATOM	1450	CD2	TYR	L	186	-23.841	29.589	107.835	1.00	13.47	L	C
	ATOM	1451	CE1	TYR	L	186	-21.492	30.928	108.541	1.00	22.60	L	C
	ATOM	1452	CE2	TYR	L	186	-23.480	30.800	107.198	1.00	21.66	L	C
	ATOM	1453	CZ	TYR	L	186	-22.298	31.458	107.569	1.00	17.38	L	C
55	ATOM	1454	OH	TYR	L	186	-21.907	32.657	107.007	1.00	26.12	L	O
	ATOM	1455	N	GLU	L	187	-26.145	28.732	110.882	1.00	26.58	L	N
	ATOM	1456	CA	GLU	L	187	-27.213	29.744	110.959	1.00	28.79	L	C
	ATOM	1457	C	GLU	L	187	-27.671	30.156	112.367	1.00	26.96	L	C
	ATOM	1458	O	GLU	L	187	-28.433	31.112	112.532	1.00	28.18	L	O
60	ATOM	1459	CB	GLU	L	187	-28.403	29.304	110.087	1.00	29.15	L	C
	ATOM	1460	CG	GLU	L	187	-28.097	29.587	108.603	1.00	38.89	L	C

ATOM	1461	CD	GLU	L	187	-29.007	28.858	107.603	1.00	54.73	L	C
ATOM	1462	OE1	GLU	L	187	-28.892	29.178	106.397	1.00	54.75	L	O
ATOM	1463	OE2	GLU	L	187	-29.806	27.966	107.994	1.00	57.19	L	O
ATOM	1464	N	ARG	L	188	-27.167	29.462	113.385	1.00	25.60	L	N
ATOM	1465	CA	ARG	L	188	-27.486	29.793	114.769	1.00	23.86	L	C
ATOM	1466	C	ARG	L	188	-26.523	30.771	115.368	1.00	26.95	L	C
ATOM	1467	O	ARG	L	188	-26.692	31.203	116.517	1.00	32.94	L	O
ATOM	1468	CB	ARG	L	188	-27.455	28.527	115.636	1.00	25.29	L	C
ATOM	1469	CG	ARG	L	188	-28.633	27.610	115.410	1.00	18.49	L	C
ATOM	1470	CD	ARG	L	188	-28.685	26.568	116.464	1.00	20.66	L	C
ATOM	1471	NE	ARG	L	188	-27.676	25.523	116.368	1.00	22.08	L	N
ATOM	1472	CZ	ARG	L	188	-27.839	24.357	115.741	1.00	31.05	L	C
ATOM	1473	NH1	ARG	L	188	-28.973	24.060	115.106	1.00	21.51	L	N
ATOM	1474	NH2	ARG	L	188	-26.897	23.438	115.816	1.00	20.64	L	N
ATOM	1475	N	HIS	L	189	-25.492	31.149	114.613	1.00	27.14	L	N
ATOM	1476	CA	HIS	L	189	-24.505	32.053	115.171	1.00	23.85	L	C
ATOM	1477	C	HIS	L	189	-24.228	33.199	114.218	1.00	24.26	L	C
ATOM	1478	O	HIS	L	189	-24.560	33.131	113.040	1.00	20.63	L	O
ATOM	1479	CB	HIS	L	189	-23.256	31.239	115.485	1.00	21.82	L	C
ATOM	1480	CG	HIS	L	189	-23.474	30.234	116.589	1.00	23.43	L	C
ATOM	1481	ND1	HIS	L	189	-23.498	30.610	117.912	1.00	18.19	L	N
ATOM	1482	CD2	HIS	L	189	-23.717	28.904	116.570	1.00	16.28	L	C
ATOM	1483	CE1	HIS	L	189	-23.754	29.561	118.670	1.00	13.06	L	C
ATOM	1484	NE2	HIS	L	189	-23.897	28.504	117.885	1.00	15.13	L	N
ATOM	1485	N	ASN	L	190	-23.636	34.250	114.735	1.00	24.89	L	N
ATOM	1486	CA	ASN	L	190	-23.396	35.390	113.884	1.00	26.57	L	C
ATOM	1487	C	ASN	L	190	-21.949	35.834	113.572	1.00	25.07	L	C
ATOM	1488	O	ASN	L	190	-21.665	36.240	112.473	1.00	18.65	L	O
ATOM	1489	CB	ASN	L	190	-24.129	36.593	114.472	1.00	33.07	L	C
ATOM	1490	CG	ASN	L	190	-24.115	37.786	113.535	1.00	44.22	L	C
ATOM	1491	OD1	ASN	L	190	-24.446	37.657	112.341	1.00	56.43	L	O
ATOM	1492	ND2	ASN	L	190	-23.741	38.956	114.065	1.00	38.66	L	N
ATOM	1493	N	SER	L	191	-21.084	35.798	114.568	1.00	24.96	L	N
ATOM	1494	CA	SER	L	191	-19.696	36.279	114.426	1.00	24.15	L	C
ATOM	1495	C	SER	L	191	-18.738	35.123	114.233	1.00	23.44	L	C
ATOM	1496	O	SER	L	191	-18.689	34.219	115.065	1.00	25.33	L	O
ATOM	1497	CB	SER	L	191	-19.320	37.056	115.696	1.00	20.64	L	C
ATOM	1498	OG	SER	L	191	-18.092	37.707	115.570	1.00	34.95	L	O
ATOM	1499	N	TYR	L	192	-17.976	35.164	113.130	1.00	20.47	L	N
ATOM	1500	CA	TYR	L	192	-17.029	34.102	112.825	1.00	20.97	L	C
ATOM	1501	C	TYR	L	192	-15.622	34.729	112.770	1.00	22.19	L	C
ATOM	1502	O	TYR	L	192	-15.425	35.691	112.063	1.00	24.10	L	O
ATOM	1503	CB	TYR	L	192	-17.436	33.470	111.492	1.00	17.62	L	C
ATOM	1504	CG	TYR	L	192	-18.679	32.625	111.641	1.00	23.22	L	C
ATOM	1505	CD1	TYR	L	192	-19.962	33.185	111.509	1.00	22.59	L	C
ATOM	1506	CD2	TYR	L	192	-18.581	31.291	112.002	1.00	18.19	L	C
ATOM	1507	CE1	TYR	L	192	-21.146	32.401	111.748	1.00	18.75	L	C
ATOM	1508	CE2	TYR	L	192	-19.753	30.493	112.245	1.00	21.05	L	C
ATOM	1509	CZ	TYR	L	192	-21.015	31.070	112.115	1.00	22.71	L	C
ATOM	1510	OH	TYR	L	192	-22.121	30.287	112.355	1.00	19.40	L	O
ATOM	1511	N	THR	L	193	-14.676	34.190	113.545	1.00	22.36	L	N
ATOM	1512	CA	THR	L	193	-13.354	34.774	113.604	1.00	24.41	L	C
ATOM	1513	C	THR	L	193	-12.233	33.758	113.480	1.00	24.10	L	C
ATOM	1514	O	THR	L	193	-12.326	32.698	114.063	1.00	27.37	L	O
ATOM	1515	CB	THR	L	193	-13.187	35.495	114.971	1.00	23.16	L	C
ATOM	1516	OG1	THR	L	193	-14.157	36.553	115.064	1.00	21.75	L	O
ATOM	1517	CG2	THR	L	193	-11.784	36.009	115.147	1.00	24.75	L	C
ATOM	1518	N	CYS	L	194	-11.215	34.108	112.690	1.00	22.54	L	N
ATOM	1519	CA	CYS	L	194	-9.983	33.318	112.457	1.00	26.58	L	C
ATOM	1520	C	CYS	L	194	-8.897	34.154	113.238	1.00	26.19	L	C
ATOM	1521	O	CYS	L	194	-8.706	35.294	112.848	1.00	24.23	L	O

ATOM	1522	CB	CYS	L	194	-9.561	33.391	110.919	1.00	24.94	L	C
ATOM	1523	SG	CYS	L	194	-8.068	32.434	110.661	1.00	42.81	L	S
ATOM	1524	N	GLU	L	195	-8.283	33.639	114.320	1.00	24.48	L	N
ATOM	1525	CA	GLU	L	195	-7.182	34.334	115.024	1.00	29.59	L	C
ATOM	1526	C	GLU	L	195	-5.844	33.609	114.798	1.00	30.32	L	C
ATOM	1527	O	GLU	L	195	-5.736	32.409	115.054	1.00	32.34	L	O
ATOM	1528	CB	GLU	L	195	-7.426	34.400	116.545	1.00	30.17	L	C
ATOM	1529	CG	GLU	L	195	-8.541	35.343	116.918	1.00	36.24	L	C
ATOM	1530	CD	GLU	L	195	-8.662	35.481	118.422	1.00	40.41	L	C
ATOM	1531	OE1	GLU	L	195	-7.813	34.889	119.126	1.00	37.64	L	O
ATOM	1532	OE2	GLU	L	195	-9.588	36.176	118.878	1.00	45.58	L	O
ATOM	1533	N	ALA	L	196	-4.832	34.351	114.356	1.00	29.64	L	N
ATOM	1534	CA	ALA	L	196	-3.507	33.789	114.084	1.00	28.09	L	C
ATOM	1535	C	ALA	L	196	-2.409	34.420	114.908	1.00	28.54	L	C
ATOM	1536	O	ALA	L	196	-2.284	35.642	114.929	1.00	30.56	L	O
ATOM	1537	CB	ALA	L	196	-3.153	33.991	112.624	1.00	29.68	L	C
ATOM	1538	N	THR	L	197	-1.607	33.592	115.568	1.00	29.39	L	N
ATOM	1539	CA	THR	L	197	-0.473	34.125	116.305	1.00	32.75	L	C
ATOM	1540	C	THR	L	197	0.759	33.583	115.564	1.00	31.12	L	C
ATOM	1541	O	THR	L	197	0.832	32.420	115.140	1.00	28.19	L	O
ATOM	1542	CB	THR	L	197	-0.477	33.711	117.796	1.00	34.20	L	C
ATOM	1543	OG1	THR	L	197	-0.216	32.310	117.927	1.00	37.75	L	O
ATOM	1544	CG2	THR	L	197	-1.827	34.046	118.406	1.00	33.92	L	C
ATOM	1545	N	HIS	L	198	1.711	34.469	115.370	1.00	30.73	L	N
ATOM	1546	CA	HIS	L	198	2.919	34.147	114.605	1.00	27.74	L	C
ATOM	1547	C	HIS	L	198	4.036	34.915	115.289	1.00	28.66	L	C
ATOM	1548	O	HIS	L	198	3.788	35.879	116.009	1.00	26.28	L	O
ATOM	1549	CB	HIS	L	198	2.719	34.651	113.168	1.00	24.97	L	C
ATOM	1550	CG	HIS	L	198	3.864	34.340	112.254	1.00	23.60	L	C
ATOM	1551	ND1	HIS	L	198	4.789	35.292	111.880	1.00	26.74	L	N
ATOM	1552	CD2	HIS	L	198	4.259	33.179	111.670	1.00	23.17	L	C
ATOM	1553	CE1	HIS	L	198	5.706	34.729	111.110	1.00	22.18	L	C
ATOM	1554	NE2	HIS	L	198	5.410	33.448	110.968	1.00	17.91	L	N
ATOM	1555	N	LYS	L	199	5.268	34.499	115.058	1.00	28.46	L	N
ATOM	1556	CA	LYS	L	199	6.391	35.179	115.711	1.00	30.45	L	C
ATOM	1557	C	LYS	L	199	6.336	36.684	115.519	1.00	30.56	L	C
ATOM	1558	O	LYS	L	199	6.784	37.429	116.387	1.00	34.50	L	O
ATOM	1559	CB	LYS	L	199	7.707	34.633	115.116	1.00	31.22	L	C
ATOM	1560	CG	LYS	L	199	9.034	35.296	115.576	1.00	33.02	L	C
ATOM	1561	CD	LYS	L	199	10.144	34.717	114.743	1.00	31.75	L	C
ATOM	1562	CE	LYS	L	199	11.548	35.183	115.205	1.00	26.57	L	C
ATOM	1563	NZ	LYS	L	199	12.553	34.725	114.206	1.00	35.93	L	N
ATOM	1564	N	THR	L	200	5.783	37.135	114.393	1.00	30.74	L	N
ATOM	1565	CA	THR	L	200	5.785	38.554	114.042	1.00	30.39	L	C
ATOM	1566	C	THR	L	200	4.916	39.445	114.890	1.00	36.75	L	C
ATOM	1567	O	THR	L	200	4.831	40.651	114.626	1.00	40.22	L	O
ATOM	1568	CB	THR	L	200	5.430	38.783	112.541	1.00	30.63	L	C
ATOM	1569	OG1	THR	L	200	4.283	37.982	112.176	1.00	34.17	L	O
ATOM	1570	CG2	THR	L	200	6.642	38.347	111.650	1.00	26.33	L	C
ATOM	1571	N	SER	L	201	4.240	38.842	115.875	1.00	42.72	L	N
ATOM	1572	CA	SER	L	201	3.444	39.601	116.831	1.00	43.91	L	C
ATOM	1573	C	SER	L	201	2.855	38.728	117.916	1.00	47.57	L	C
ATOM	1574	O	SER	L	201	2.126	37.756	117.644	1.00	50.70	L	O
ATOM	1575	CB	SER	L	201	2.328	40.364	116.130	1.00	43.23	L	C
ATOM	1576	OG	SER	L	201	1.711	41.223	117.077	1.00	48.62	L	O
ATOM	1577	N	THR	L	202	3.160	39.073	119.157	1.00	52.05	L	N
ATOM	1578	CA	THR	L	202	2.652	38.344	120.314	1.00	56.48	L	C
ATOM	1579	C	THR	L	202	1.097	38.311	120.322	1.00	56.15	L	C
ATOM	1580	O	THR	L	202	0.468	37.332	120.756	1.00	56.79	L	O
ATOM	1581	CB	THR	L	202	3.147	39.041	121.586	1.00	59.00	L	C
ATOM	1582	OG1	THR	L	202	4.517	39.445	121.400	1.00	62.75	L	O

	ATOM	1583	CG2	THR	L	202	3.065	38.103	122.770	1.00	63.28	L C
	ATOM	1584	N	SER	L	203	0.494	39.399	119.845	1.00	54.97	L N
	ATOM	1585	CA	SER	L	203	-0.965	39.544	119.772	1.00	52.62	L C
	ATOM	1586	C	SER	L	203	-1.454	38.958	118.442	1.00	49.42	L C
5	ATOM	1587	O	SER	L	203	-0.916	39.279	117.377	1.00	48.69	L O
	ATOM	1588	CB	SER	L	203	-1.298	41.013	119.794	1.00	54.28	L C
	ATOM	1589	OG	SER	L	203	-0.510	41.642	118.792	1.00	58.41	L O
	ATOM	1590	N	PRO	L	204	-2.522	38.151	118.477	1.00	47.34	L N
	ATOM	1591	CA	PRO	L	204	-3.014	37.553	117.233	1.00	42.56	L C
10	ATOM	1592	C	PRO	L	204	-3.502	38.506	116.165	1.00	39.20	L C
	ATOM	1593	O	PRO	L	204	-3.898	39.613	116.453	1.00	33.50	L O
	ATOM	1594	CB	PRO	L	204	-4.137	36.635	117.715	1.00	44.27	L C
	ATOM	1595	CG	PRO	L	204	-4.723	37.438	118.867	1.00	43.09	L C
	ATOM	1596	CD	PRO	L	204	-3.435	37.849	119.599	1.00	48.00	L C
15	ATOM	1597	N	ILE	L	205	-3.460	38.043	114.921	1.00	37.41	L N
	ATOM	1598	CA	ILE	L	205	-3.986	38.796	113.780	1.00	32.91	L C
	ATOM	1599	C	ILE	L	205	-5.428	38.239	113.757	1.00	30.62	L C
	ATOM	1600	O	ILE	L	205	-5.641	37.013	113.784	1.00	29.63	L O
	ATOM	1601	CB	ILE	L	205	-3.219	38.432	112.471	1.00	34.55	L C
20	ATOM	1602	CG1	ILE	L	205	-1.814	39.073	112.503	1.00	31.34	L C
	ATOM	1603	CG2	ILE	L	205	-3.974	38.938	111.248	1.00	24.01	L C
	ATOM	1604	CD1	ILE	L	205	-0.939	38.666	111.290	1.00	42.44	L C
	ATOM	1605	N	VAL	L	206	-6.396	39.139	113.730	1.00	25.89	L N
	ATOM	1606	CA	VAL	L	206	-7.813	38.759	113.789	1.00	24.40	L C
25	ATOM	1607	C	VAL	L	206	-8.582	39.102	112.524	1.00	22.44	L C
	ATOM	1608	O	VAL	L	206	-8.531	40.234	112.081	1.00	26.84	L O
	ATOM	1609	CB	VAL	L	206	-8.485	39.495	115.011	1.00	20.80	L C
	ATOM	1610	CG1	VAL	L	206	-9.979	39.144	115.107	1.00	25.93	L C
	ATOM	1611	CG2	VAL	L	206	-7.782	39.060	116.324	1.00	28.40	L C
30	ATOM	1612	N	LYS	L	207	-9.259	38.127	111.900	1.00	23.36	L N
	ATOM	1613	CA	LYS	L	207	-10.088	38.410	110.716	1.00	21.65	L C
	ATOM	1614	C	LYS	L	207	-11.472	37.832	111.032	1.00	23.76	L C
	ATOM	1615	O	LYS	L	207	-11.585	36.737	111.566	1.00	27.90	L O
	ATOM	1616	CB	LYS	L	207	-9.560	37.756	109.450	1.00	23.08	L C
35	ATOM	1617	CG	LYS	L	207	-8.259	38.397	109.002	1.00	32.25	L C
	ATOM	1618	CD	LYS	L	207	-8.452	39.818	108.444	1.00	39.96	L C
	ATOM	1619	CE	LYS	L	207	-7.059	40.481	108.245	1.00	45.64	L C
	ATOM	1620	NZ	LYS	L	207	-7.248	41.837	107.672	1.00	49.08	L N
	ATOM	1621	N	SER	L	208	-12.515	38.553	110.696	1.00	24.38	L N
40	ATOM	1622	CA	SER	L	208	-13.865	38.071	111.044	1.00	25.80	L C
	ATOM	1623	C	SER	L	208	-14.875	38.506	110.050	1.00	23.17	L C
	ATOM	1624	O	SER	L	208	-14.619	39.407	109.269	1.00	27.40	L O
	ATOM	1625	CB	SER	L	208	-14.363	38.722	112.364	1.00	25.60	L C
	ATOM	1626	OG	SER	L	208	-13.384	38.712	113.361	1.00	44.51	L O
45	ATOM	1627	N	PHE	L	209	-16.051	37.880	110.105	1.00	23.25	L N
	ATOM	1628	CA	PHE	L	209	-17.173	38.342	109.303	1.00	20.50	L C
	ATOM	1629	C	PHE	L	209	-18.428	38.049	110.129	1.00	22.48	L C
	ATOM	1630	O	PHE	L	209	-18.387	37.253	111.055	1.00	24.58	L O
	ATOM	1631	CB	PHE	L	209	-17.269	37.664	107.939	1.00	16.13	L C
50	ATOM	1632	CG	PHE	L	209	-17.620	36.198	108.000	1.00	26.94	L C
	ATOM	1633	CD1	PHE	L	209	-18.955	35.765	108.039	1.00	26.84	L C
	ATOM	1634	CD2	PHE	L	209	-16.606	35.241	108.000	1.00	31.15	L C
	ATOM	1635	CE1	PHE	L	209	-19.254	34.404	108.072	1.00	27.00	L C
	ATOM	1636	CE2	PHE	L	209	-16.897	33.895	108.027	1.00	21.00	L C
55	ATOM	1637	CZ	PHE	L	209	-18.229	33.464	108.063	1.00	19.74	L C
	ATOM	1638	N	ASN	L	210	-19.522	38.737	109.814	1.00	29.53	L N
	ATOM	1639	CA	ASN	L	210	-20.809	38.497	110.471	1.00	32.53	L C
	ATOM	1640	C	ASN	L	210	-21.715	37.868	109.438	1.00	33.07	L C
	ATOM	1641	O	ASN	L	210	-21.804	38.326	108.302	1.00	37.81	L O
60	ATOM	1642	CB	ASN	L	210	-21.424	39.789	110.987	1.00	33.31	L C
	ATOM	1643	CG	ASN	L	210	-20.647	40.358	112.131	1.00	41.97	L C

ATOM	1644	OD1	ASN	L	210	-20.232	39.624	113.028	1.00	53.13	L	O
ATOM	1645	ND2	ASN	L	210	-20.427	41.673	112.111	1.00	48.33	L	N
ATOM	1646	N	ARG	L	211	-22.349	36.779	109.810	1.00	34.50	L	N
ATOM	1647	CA	ARG	L	211	-23.225	36.076	108.891	1.00	36.42	L	C
ATOM	1648	C	ARG	L	211	-24.255	37.088	108.362	1.00	43.20	L	C
ATOM	1649	O	ARG	L	211	-24.483	37.085	107.129	1.00	47.09	L	O
ATOM	1650	CB	ARG	L	211	-23.897	34.874	109.605	1.00	32.11	L	C
ATOM	1651	CG	ARG	L	211	-24.800	33.985	108.728	1.00	23.39	L	C
ATOM	1652	CD	ARG	L	211	-25.278	32.779	109.472	1.00	19.99	L	C
ATOM	1653	NE	ARG	L	211	-25.888	33.196	110.725	1.00	38.28	L	N
ATOM	1654	CZ	ARG	L	211	-27.142	33.605	110.849	1.00	44.67	L	C
ATOM	1655	NH1	ARG	L	211	-27.949	33.631	109.786	1.00	48.24	L	N
ATOM	1656	NH2	ARG	L	211	-27.568	34.048	112.027	1.00	46.31	L	N
ATOM	1657	OXT	ARG	L	211	-24.796	37.887	109.158	1.00	43.58	L	O
TER	1658		ARG	L	211							
ATOM	1659	N	GLU	H	1	13.634	16.019	73.396	1.00	37.05	H	N
ATOM	1660	CA	GLU	H	1	13.497	15.897	74.879	1.00	37.26	H	C
ATOM	1661	C	GLU	H	1	12.992	14.523	75.281	1.00	32.62	H	C
ATOM	1662	O	GLU	H	1	12.103	13.972	74.644	1.00	31.05	H	O
ATOM	1663	CB	GLU	H	1	12.537	16.969	75.411	1.00	39.07	H	C
ATOM	1664	CG	GLU	H	1	11.930	16.635	76.750	1.00	56.68	H	C
ATOM	1665	CD	GLU	H	1	11.585	17.889	77.553	1.00	73.84	H	C
ATOM	1666	OE1	GLU	H	1	11.488	17.807	78.805	1.00	77.86	H	O
ATOM	1667	OE2	GLU	H	1	11.417	18.958	76.922	1.00	78.38	H	O
ATOM	1668	N	VAL	H	2	13.548	13.973	76.355	1.00	30.97	H	N
ATOM	1669	CA	VAL	H	2	13.122	12.653	76.833	1.00	25.27	H	C
ATOM	1670	C	VAL	H	2	11.817	12.857	77.557	1.00	25.45	H	C
ATOM	1671	O	VAL	H	2	11.670	13.778	78.359	1.00	28.52	H	O
ATOM	1672	CB	VAL	H	2	14.101	12.061	77.867	1.00	21.49	H	C
ATOM	1673	CG1	VAL	H	2	13.467	10.846	78.519	1.00	20.68	H	C
ATOM	1674	CG2	VAL	H	2	15.439	11.700	77.205	1.00	23.15	H	C
ATOM	1675	N	ALA	H	3	10.865	11.994	77.290	1.00	25.40	H	N
ATOM	1676	CA	ALA	H	3	9.593	12.073	77.975	1.00	28.29	H	C
ATOM	1677	C	ALA	H	3	9.089	10.661	78.373	1.00	26.97	H	C
ATOM	1678	O	ALA	H	3	9.185	9.698	77.593	1.00	29.48	H	O
ATOM	1679	CB	ALA	H	3	8.549	12.845	77.052	1.00	27.69	H	C
ATOM	1680	N	LEU	H	4	8.609	10.538	79.612	1.00	24.22	H	N
ATOM	1681	CA	LEU	H	4	8.061	9.287	80.137	1.00	20.89	H	C
ATOM	1682	C	LEU	H	4	6.689	9.658	80.678	1.00	22.76	H	C
ATOM	1683	O	LEU	H	4	6.584	10.514	81.590	1.00	27.07	H	O
ATOM	1684	CB	LEU	H	4	8.916	8.766	81.302	1.00	22.55	H	C
ATOM	1685	CG	LEU	H	4	10.384	8.474	80.837	1.00	17.66	H	C
ATOM	1686	CD1	LEU	H	4	11.151	8.000	82.071	1.00	17.39	H	C
ATOM	1687	CD2	LEU	H	4	10.446	7.366	79.750	1.00	23.92	H	C
ATOM	1688	N	VAL	H	5	5.639	9.005	80.176	1.00	24.40	H	N
ATOM	1689	CA	VAL	H	5	4.290	9.364	80.620	1.00	20.43	H	C
ATOM	1690	C	VAL	H	5	3.513	8.155	81.167	1.00	20.69	H	C
ATOM	1691	O	VAL	H	5	3.095	7.262	80.397	1.00	23.26	H	O
ATOM	1692	CB	VAL	H	5	3.505	9.990	79.464	1.00	17.37	H	C
ATOM	1693	CG1	VAL	H	5	2.092	10.282	79.925	1.00	12.65	H	C
ATOM	1694	CG2	VAL	H	5	4.204	11.263	78.989	1.00	16.08	H	C
ATOM	1695	N	GLU	H	6	3.282	8.143	82.474	1.00	18.23	H	N
ATOM	1696	CA	GLU	H	6	2.590	6.997	83.074	1.00	21.02	H	C
ATOM	1697	C	GLU	H	6	1.080	7.101	83.005	1.00	24.64	H	C
ATOM	1698	O	GLU	H	6	0.535	8.187	82.930	1.00	24.72	H	O
ATOM	1699	CB	GLU	H	6	2.948	6.778	84.539	1.00	23.51	H	C
ATOM	1700	CG	GLU	H	6	4.498	6.643	84.825	1.00	22.40	H	C
ATOM	1701	CD	GLU	H	6	5.121	7.975	85.129	1.00	24.00	H	C
ATOM	1702	OE1	GLU	H	6	4.652	9.035	84.652	1.00	22.51	H	O
ATOM	1703	OE2	GLU	H	6	6.169	7.956	85.930	1.00	20.14	H	O
ATOM	1704	N	SER	H	7	0.426	5.954	82.993	1.00	25.35	H	N

ATOM	1705	CA	SER	H	7	-1.051	5.957	83.008	1.00	24.71	H	C
ATOM	1706	C	SER	H	7	-1.494	4.639	83.623	1.00	23.70	H	C
ATOM	1707	O	SER	H	7	-0.669	3.750	83.870	1.00	23.79	H	O
ATOM	1708	CB	SER	H	7	-1.625	6.137	81.602	1.00	24.31	H	C
ATOM	1709	OG	SER	H	7	-1.219	5.109	80.733	1.00	29.67	H	O
ATOM	1710	N	GLY	H	8	-2.793	4.535	83.926	1.00	24.57	H	N
ATOM	1711	CA	GLY	H	8	-3.309	3.306	84.479	1.00	26.40	H	C
ATOM	1712	C	GLY	H	8	-3.483	3.239	85.973	1.00	27.67	H	C
ATOM	1713	O	GLY	H	8	-3.994	2.242	86.485	1.00	32.68	H	O
ATOM	1714	N	GLY	H	9	-3.071	4.256	86.714	1.00	26.70	H	N
ATOM	1715	CA	GLY	H	9	-3.267	4.106	88.133	1.00	30.26	H	C
ATOM	1716	C	GLY	H	9	-4.736	4.366	88.505	1.00	31.53	H	C
ATOM	1717	O	GLY	H	9	-5.554	4.742	87.658	1.00	34.39	H	O
ATOM	1718	N	GLY	H	10	-5.050	4.186	89.771	1.00	26.64	H	N
ATOM	1719	CA	GLY	H	10	-6.399	4.406	90.224	1.00	24.06	H	C
ATOM	1720	C	GLY	H	10	-6.617	3.606	91.474	1.00	28.46	H	C
ATOM	1721	O	GLY	H	10	-5.670	3.135	92.107	1.00	29.65	H	O
ATOM	1722	N	LEU	H	11	-7.894	3.418	91.830	1.00	27.81	H	N
ATOM	1723	CA	LEU	H	11	-8.248	2.704	93.050	1.00	26.68	H	C
ATOM	1724	C	LEU	H	11	-8.468	1.217	92.762	1.00	29.79	H	C
ATOM	1725	O	LEU	H	11	-9.134	0.859	91.790	1.00	31.97	H	O
ATOM	1726	CB	LEU	H	11	-9.553	3.275	93.616	1.00	27.46	H	C
ATOM	1727	CG	LEU	H	11	-10.211	2.593	94.829	1.00	30.78	H	C
ATOM	1728	CD1	LEU	H	11	-9.387	2.638	96.069	1.00	21.39	H	C
ATOM	1729	CD2	LEU	H	11	-11.577	3.319	95.076	1.00	26.61	H	C
ATOM	1730	N	VAL	H	12	-7.979	0.362	93.641	1.00	31.51	H	N
ATOM	1731	CA	VAL	H	12	-8.140	-1.062	93.408	1.00	31.17	H	C
ATOM	1732	C	VAL	H	12	-8.342	-1.688	94.747	1.00	29.15	H	C
ATOM	1733	O	VAL	H	12	-7.779	-1.243	95.722	1.00	29.56	H	O
ATOM	1734	CB	VAL	H	12	-6.873	-1.668	92.693	1.00	32.00	H	C
ATOM	1735	CG1	VAL	H	12	-5.599	-1.392	93.539	1.00	28.63	H	C
ATOM	1736	CG2	VAL	H	12	-7.045	-3.187	92.482	1.00	29.00	H	C
ATOM	1737	N	LYS	H	13	-9.176	-2.723	94.826	1.00	28.70	H	N
ATOM	1738	CA	LYS	H	13	-9.363	-3.342	96.115	1.00	31.56	H	C
ATOM	1739	C	LYS	H	13	-8.219	-4.272	96.474	1.00	30.38	H	C
ATOM	1740	O	LYS	H	13	-7.512	-4.781	95.618	1.00	33.11	H	O
ATOM	1741	CB	LYS	H	13	-10.696	-4.153	96.145	1.00	33.16	H	C
ATOM	1742	CG	LYS	H	13	-11.898	-3.328	95.773	1.00	41.91	H	C
ATOM	1743	CD	LYS	H	13	-13.189	-3.961	96.279	1.00	51.54	H	C
ATOM	1744	CE	LYS	H	13	-14.387	-3.251	95.690	1.00	65.14	H	C
ATOM	1745	NZ	LYS	H	13	-14.447	-3.378	94.190	1.00	58.25	H	N
ATOM	1746	N	PRO	H	14	-8.006	-4.494	97.763	1.00	28.47	H	N
ATOM	1747	CA	PRO	H	14	-6.935	-5.398	98.191	1.00	27.81	H	C
ATOM	1748	C	PRO	H	14	-7.158	-6.767	97.499	1.00	30.73	H	C
ATOM	1749	O	PRO	H	14	-8.300	-7.224	97.382	1.00	33.00	H	O
ATOM	1750	CB	PRO	H	14	-7.162	-5.504	99.686	1.00	27.15	H	C
ATOM	1751	CG	PRO	H	14	-7.812	-4.191	100.033	1.00	25.33	H	C
ATOM	1752	CD	PRO	H	14	-8.684	-3.850	98.901	1.00	24.23	H	C
ATOM	1753	N	GLY	H	15	-6.077	-7.418	97.087	1.00	31.50	H	N
ATOM	1754	CA	GLY	H	15	-6.149	-8.694	96.398	1.00	26.43	H	C
ATOM	1755	C	GLY	H	15	-6.402	-8.471	94.922	1.00	31.35	H	C
ATOM	1756	O	GLY	H	15	-6.348	-9.393	94.114	1.00	37.77	H	O
ATOM	1757	N	GLY	H	16	-6.658	-7.228	94.547	1.00	30.42	H	N
ATOM	1758	CA	GLY	H	16	-6.924	-6.919	93.159	1.00	30.36	H	C
ATOM	1759	C	GLY	H	16	-5.678	-6.869	92.275	1.00	30.40	H	C
ATOM	1760	O	GLY	H	16	-4.555	-7.147	92.740	1.00	33.82	H	O
ATOM	1761	N	SER	H	17	-5.912	-6.536	91.007	1.00	27.09	H	N
ATOM	1762	CA	SER	H	17	-4.893	-6.420	89.970	1.00	31.01	H	C
ATOM	1763	C	SER	H	17	-5.030	-5.095	89.249	1.00	33.12	H	C
ATOM	1764	O	SER	H	17	-6.118	-4.506	89.210	1.00	35.49	H	O
ATOM	1765	CB	SER	H	17	-5.035	-7.527	88.925	1.00	29.40	H	C

ATOM	1766	OG	SER	H	17	-4.519	-8.733	89.433	1.00	40.23	H	O
ATOM	1767	N	LEU	H	18	-3.933	-4.645	88.635	1.00	29.11	H	N
ATOM	1768	CA	LEU	H	18	-3.967	-3.407	87.892	1.00	31.40	H	C
ATOM	1769	C	LEU	H	18	-2.737	-3.388	86.979	1.00	28.04	H	C
ATOM	1770	O	LEU	H	18	-1.704	-3.871	87.384	1.00	31.12	H	O
ATOM	1771	CB	LEU	H	18	-3.904	-2.234	88.882	1.00	36.05	H	C
ATOM	1772	CG	LEU	H	18	-4.099	-0.827	88.311	1.00	36.13	H	C
ATOM	1773	CD1	LEU	H	18	-5.511	-0.718	87.716	1.00	32.11	H	C
ATOM	1774	CD2	LEU	H	18	-3.910	0.228	89.402	1.00	41.12	H	C
ATOM	1775	N	LYS	H	19	-2.838	-2.822	85.789	1.00	23.49	H	N
ATOM	1776	CA	LYS	H	19	-1.670	-2.786	84.915	1.00	23.15	H	C
ATOM	1777	C	LYS	H	19	-1.353	-1.349	84.578	1.00	26.43	H	C
ATOM	1778	O	LYS	H	19	-2.207	-0.617	84.062	1.00	25.06	H	O
ATOM	1779	CB	LYS	H	19	-1.911	-3.507	83.593	1.00	24.43	H	C
ATOM	1780	CG	LYS	H	19	-0.624	-3.721	82.771	1.00	28.16	H	C
ATOM	1781	CD	LYS	H	19	-0.877	-4.632	81.551	1.00	27.11	H	C
ATOM	1782	CE	LYS	H	19	0.438	-5.139	80.971	1.00	37.87	H	C
ATOM	1783	NZ	LYS	H	19	0.227	-5.854	79.670	1.00	50.80	H	N
ATOM	1784	N	LEU	H	20	-0.120	-0.942	84.881	1.00	25.63	H	N
ATOM	1785	CA	LEU	H	20	0.334	0.417	84.587	1.00	23.09	H	C
ATOM	1786	C	LEU	H	20	1.119	0.431	83.293	1.00	21.89	H	C
ATOM	1787	O	LEU	H	20	1.814	-0.552	82.969	1.00	23.58	H	O
ATOM	1788	CB	LEU	H	20	1.277	0.900	85.707	1.00	22.80	H	C
ATOM	1789	CG	LEU	H	20	0.799	0.750	87.143	1.00	23.07	H	C
ATOM	1790	CD1	LEU	H	20	1.851	1.306	88.119	1.00	30.17	H	C
ATOM	1791	CD2	LEU	H	20	-0.538	1.505	87.267	1.00	26.07	H	C
ATOM	1792	N	SER	H	21	1.050	1.558	82.595	1.00	19.29	H	N
ATOM	1793	CA	SER	H	21	1.749	1.754	81.359	1.00	22.08	H	C
ATOM	1794	C	SER	H	21	2.636	2.978	81.440	1.00	24.30	H	C
ATOM	1795	O	SER	H	21	2.353	3.911	82.195	1.00	27.22	H	O
ATOM	1796	CB	SER	H	21	0.748	1.964	80.229	1.00	21.00	H	C
ATOM	1797	OG	SER	H	21	0.011	0.761	80.030	1.00	34.43	H	O
ATOM	1798	N	CYS	H	22	3.661	2.991	80.608	1.00	21.98	H	N
ATOM	1799	CA	CYS	H	22	4.571	4.125	80.536	1.00	20.64	H	C
ATOM	1800	C	CYS	H	22	4.981	4.313	79.090	1.00	21.24	H	C
ATOM	1801	O	CYS	H	22	5.646	3.437	78.532	1.00	27.26	H	O
ATOM	1802	CB	CYS	H	22	5.802	3.897	81.424	1.00	21.02	H	C
ATOM	1803	SG	CYS	H	22	6.992	5.249	81.188	1.00	29.58	H	S
ATOM	1804	N	ALA	H	23	4.556	5.436	78.489	1.00	17.76	H	N
ATOM	1805	CA	ALA	H	23	4.855	5.821	77.114	1.00	20.00	H	C
ATOM	1806	C	ALA	H	23	6.179	6.585	77.077	1.00	23.26	H	C
ATOM	1807	O	ALA	H	23	6.306	7.663	77.655	1.00	25.72	H	O
ATOM	1808	CB	ALA	H	23	3.739	6.738	76.544	1.00	17.81	H	C
ATOM	1809	N	ALA	H	24	7.133	6.073	76.318	1.00	24.36	H	N
ATOM	1810	CA	ALA	H	24	8.427	6.705	76.290	1.00	25.28	H	C
ATOM	1811	C	ALA	H	24	8.741	7.270	74.950	1.00	26.13	H	C
ATOM	1812	O	ALA	H	24	8.397	6.679	73.921	1.00	27.39	H	O
ATOM	1813	CB	ALA	H	24	9.480	5.704	76.687	1.00	25.98	H	C
ATOM	1814	N	SER	H	25	9.407	8.414	74.946	1.00	24.17	H	N
ATOM	1815	CA	SER	H	25	9.761	9.022	73.680	1.00	26.47	H	C
ATOM	1816	C	SER	H	25	11.004	9.896	73.855	1.00	26.46	H	C
ATOM	1817	O	SER	H	25	11.383	10.242	74.967	1.00	28.62	H	O
ATOM	1818	CB	SER	H	25	8.583	9.889	73.200	1.00	27.45	H	C
ATOM	1819	OG	SER	H	25	8.344	10.935	74.132	1.00	24.69	H	O
ATOM	1820	N	GLY	H	26	11.678	10.210	72.769	1.00	22.55	H	N
ATOM	1821	CA	GLY	H	26	12.807	11.111	72.911	1.00	20.54	H	C
ATOM	1822	C	GLY	H	26	14.151	10.470	73.084	1.00	24.32	H	C
ATOM	1823	O	GLY	H	26	15.139	11.176	73.294	1.00	24.89	H	O
ATOM	1824	N	PHE	H	27	14.199	9.141	73.028	1.00	21.93	H	N
ATOM	1825	CA	PHE	H	27	15.482	8.426	73.112	1.00	20.14	H	C
ATOM	1826	C	PHE	H	27	15.297	7.067	72.471	1.00	21.32	H	C

	ATOM	1827	O	PHE	H	27	14.152	6.622	72.250	1.00	23.00	H	O
	ATOM	1828	CB	PHE	H	27	15.964	8.301	74.591	1.00	20.36	H	C
	ATOM	1829	CG	PHE	H	27	15.035	7.491	75.504	1.00	18.12	H	C
	ATOM	1830	CD1	PHE	H	27	15.278	6.164	75.788	1.00	10.19	H	C
5	ATOM	1831	CD2	PHE	H	27	13.905	8.073	76.058	1.00	18.20	H	C
	ATOM	1832	CE1	PHE	H	27	14.417	5.404	76.613	1.00	15.96	H	C
	ATOM	1833	CE2	PHE	H	27	13.028	7.329	76.893	1.00	21.16	H	C
	ATOM	1834	CZ	PHE	H	27	13.276	6.009	77.174	1.00	9.67	H	C
	ATOM	1835	N	THR	H	28	16.400	6.358	72.225	1.00	20.96	H	N
10	ATOM	1836	CA	THR	H	28	16.307	5.056	71.570	1.00	20.74	H	C
	ATOM	1837	C	THR	H	28	15.937	4.013	72.549	1.00	22.28	H	C
	ATOM	1838	O	THR	H	28	16.775	3.363	73.126	1.00	25.49	H	O
	ATOM	1839	CB	THR	H	28	17.610	4.727	70.871	1.00	17.35	H	C
	ATOM	1840	OG1	THR	H	28	17.834	5.747	69.902	1.00	22.02	H	O
15	ATOM	1841	CG2	THR	H	28	17.527	3.399	70.157	1.00	21.93	H	C
	ATOM	1842	N	PHE	H	29	14.636	3.854	72.730	1.00	20.12	H	N
	ATOM	1843	CA	PHE	H	29	14.092	2.922	73.707	1.00	19.24	H	C
	ATOM	1844	C	PHE	H	29	14.698	1.534	73.827	1.00	20.34	H	C
	ATOM	1845	O	PHE	H	29	15.023	1.081	74.937	1.00	22.88	H	O
20	ATOM	1846	CB	PHE	H	29	12.568	2.808	73.476	1.00	18.98	H	C
	ATOM	1847	CG	PHE	H	29	11.821	2.069	74.551	1.00	18.94	H	C
	ATOM	1848	CD1	PHE	H	29	11.547	2.681	75.784	1.00	17.20	H	C
	ATOM	1849	CD2	PHE	H	29	11.337	0.774	74.328	1.00	17.93	H	C
	ATOM	1850	CE1	PHE	H	29	10.802	1.996	76.752	1.00	20.22	H	C
25	ATOM	1851	CE2	PHE	H	29	10.587	0.086	75.316	1.00	20.54	H	C
	ATOM	1852	CZ	PHE	H	29	10.330	0.704	76.515	1.00	7.20	H	C
	ATOM	1853	N	ILE	H	30	14.872	0.847	72.699	1.00	22.05	H	N
	ATOM	1854	CA	ILE	H	30	15.393	-0.520	72.753	1.00	24.80	H	C
	ATOM	1855	C	ILE	H	30	16.752	-0.688	73.403	1.00	22.06	H	C
30	ATOM	1856	O	ILE	H	30	17.027	-1.775	73.909	1.00	23.49	H	O
	ATOM	1857	CB	ILE	H	30	15.488	-1.222	71.350	1.00	23.26	H	C
	ATOM	1858	CG1	ILE	H	30	16.369	-0.396	70.424	1.00	23.10	H	C
	ATOM	1859	CG2	ILE	H	30	14.061	-1.412	70.768	1.00	32.12	H	C
	ATOM	1860	CD1	ILE	H	30	16.802	-1.136	69.186	1.00	38.83	H	C
35	ATOM	1861	N	SER	H	31	17.546	0.377	73.443	1.00	18.26	H	N
	ATOM	1862	CA	SER	H	31	18.890	0.261	74.003	1.00	18.45	H	C
	ATOM	1863	C	SER	H	31	18.984	0.503	75.508	1.00	18.69	H	C
	ATOM	1864	O	SER	H	31	20.041	0.256	76.089	1.00	21.46	H	O
	ATOM	1865	CB	SER	H	31	19.874	1.206	73.291	1.00	14.50	H	C
40	ATOM	1866	OG	SER	H	31	20.169	0.722	71.962	1.00	31.45	H	O
	ATOM	1867	N	TYR	H	32	17.883	0.952	76.124	1.00	18.03	H	N
	ATOM	1868	CA	TYR	H	32	17.886	1.240	77.549	1.00	14.33	H	C
	ATOM	1869	C	TYR	H	32	17.152	0.280	78.441	1.00	15.02	H	C
	ATOM	1870	O	TYR	H	32	16.115	-0.302	78.076	1.00	14.37	H	O
45	ATOM	1871	CB	TYR	H	32	17.310	2.665	77.818	1.00	13.79	H	C
	ATOM	1872	CG	TYR	H	32	18.198	3.793	77.298	1.00	17.16	H	C
	ATOM	1873	CD1	TYR	H	32	18.203	4.142	75.943	1.00	14.56	H	C
	ATOM	1874	CD2	TYR	H	32	19.042	4.487	78.156	1.00	14.56	H	C
	ATOM	1875	CE1	TYR	H	32	19.020	5.152	75.457	1.00	17.45	H	C
50	ATOM	1876	CE2	TYR	H	32	19.882	5.505	77.679	1.00	20.18	H	C
	ATOM	1877	CZ	TYR	H	32	19.857	5.828	76.330	1.00	23.49	H	C
	ATOM	1878	OH	TYR	H	32	20.666	6.850	75.863	1.00	28.23	H	O
	ATOM	1879	N	ALA	H	33	17.698	0.140	79.651	1.00	14.42	H	N
	ATOM	1880	CA	ALA	H	33	17.057	-0.615	80.695	1.00	14.51	H	C
55	ATOM	1881	C	ALA	H	33	15.993	0.394	81.252	1.00	14.39	H	C
	ATOM	1882	O	ALA	H	33	16.123	1.624	81.104	1.00	12.17	H	O
	ATOM	1883	CB	ALA	H	33	18.055	-1.001	81.806	1.00	12.68	H	C
	ATOM	1884	N	MET	H	34	14.949	-0.140	81.862	1.00	16.84	H	N
	ATOM	1885	CA	MET	H	34	13.874	0.700	82.416	1.00	16.36	H	C
60	ATOM	1886	C	MET	H	34	13.439	0.188	83.758	1.00	15.55	H	C
	ATOM	1887	O	MET	H	34	13.601	-0.987	84.086	1.00	13.11	H	O

	ATOM	1888	CB	MET	H	34	12.651	0.697	81.474	1.00	15.24	H C
	ATOM	1889	CG	MET	H	34	12.887	1.223	80.071	1.00	14.09	H C
	ATOM	1890	SD	MET	H	34	13.108	3.014	79.968	1.00	20.48	H S
	ATOM	1891	CE	MET	H	34	11.533	3.688	80.662	1.00	7.18	H C
5	ATOM	1892	N	SER	H	35	12.790	1.053	84.546	1.00	16.91	H N
	ATOM	1893	CA	SER	H	35	12.374	0.616	85.875	1.00	19.04	H C
	ATOM	1894	C	SER	H	35	11.092	1.306	86.348	1.00	18.31	H C
	ATOM	1895	O	SER	H	35	10.620	2.251	85.722	1.00	24.04	H O
	ATOM	1896	CB	SER	H	35	13.451	0.992	86.951	1.00	14.30	H C
10	ATOM	1897	OG	SER	H	35	14.755	0.386	86.723	1.00	22.00	H O
	ATOM	1898	N	TRP	H	36	10.567	0.771	87.440	1.00	12.01	H N
	ATOM	1899	CA	TRP	H	36	9.448	1.383	88.154	1.00	12.95	H C
	ATOM	1900	C	TRP	H	36	9.970	1.598	89.590	1.00	18.28	H C
	ATOM	1901	O	TRP	H	36	10.611	0.709	90.210	1.00	16.01	H O
15	ATOM	1902	CB	TRP	H	36	8.232	0.467	88.231	1.00	14.71	H C
	ATOM	1903	CG	TRP	H	36	7.503	0.323	86.885	1.00	21.41	H C
	ATOM	1904	CD1	TRP	H	36	7.705	-0.669	85.937	1.00	9.67	H C
	ATOM	1905	CD2	TRP	H	36	6.505	1.203	86.345	1.00	18.07	H C
	ATOM	1906	NE1	TRP	H	36	6.897	-0.430	84.856	1.00	23.74	H N
20	ATOM	1907	CE2	TRP	H	36	6.144	0.698	85.078	1.00	17.04	H C
	ATOM	1908	CE3	TRP	H	36	5.874	2.365	86.817	1.00	4.98	H C
	ATOM	1909	CZ2	TRP	H	36	5.177	1.314	84.267	1.00	16.74	H C
	ATOM	1910	CZ3	TRP	H	36	4.929	2.981	86.022	1.00	19.83	H C
	ATOM	1911	CH2	TRP	H	36	4.582	2.456	84.745	1.00	18.46	H C
25	ATOM	1912	N	VAL	H	37	9.660	2.777	90.138	1.00	19.29	H N
	ATOM	1913	CA	VAL	H	37	10.093	3.115	91.481	1.00	19.64	H C
	ATOM	1914	C	VAL	H	37	8.845	3.770	92.101	1.00	19.14	H C
	ATOM	1915	O	VAL	H	37	8.269	4.629	91.495	1.00	19.32	H O
	ATOM	1916	CB	VAL	H	37	11.249	4.180	91.436	1.00	20.61	H C
30	ATOM	1917	CG1	VAL	H	37	11.648	4.586	92.880	1.00	17.50	H C
	ATOM	1918	CG2	VAL	H	37	12.488	3.563	90.693	1.00	17.13	H C
	ATOM	1919	N	ARG	H	38	8.492	3.378	93.319	1.00	16.77	H N
	ATOM	1920	CA	ARG	H	38	7.287	3.953	93.923	1.00	15.98	H C
	ATOM	1921	C	ARG	H	38	7.630	4.775	95.146	1.00	18.04	H C
35	ATOM	1922	O	ARG	H	38	8.684	4.632	95.734	1.00	16.62	H O
	ATOM	1923	CB	ARG	H	38	6.282	2.840	94.307	1.00	16.85	H C
	ATOM	1924	CG	ARG	H	38	6.772	1.938	95.386	1.00	8.21	H C
	ATOM	1925	CD	ARG	H	38	5.789	0.730	95.622	1.00	11.19	H C
	ATOM	1926	NE	ARG	H	38	6.272	-0.154	96.661	1.00	14.89	H N
40	ATOM	1927	CZ	ARG	H	38	5.688	-1.319	96.949	1.00	22.76	H C
	ATOM	1928	NH1	ARG	H	38	4.620	-1.693	96.239	1.00	24.06	H N
	ATOM	1929	NH2	ARG	H	38	6.132	-2.078	97.948	1.00	23.16	H N
	ATOM	1930	N	GLN	H	39	6.722	5.687	95.494	1.00	18.48	H N
	ATOM	1931	CA	GLN	H	39	6.952	6.530	96.674	1.00	22.51	H C
45	ATOM	1932	C	GLN	H	39	5.681	6.398	97.560	1.00	26.22	H C
	ATOM	1933	O	GLN	H	39	4.589	6.703	97.106	1.00	29.41	H O
	ATOM	1934	CB	GLN	H	39	7.135	7.993	96.242	1.00	20.08	H C
	ATOM	1935	CG	GLN	H	39	7.516	8.855	97.445	1.00	14.71	H C
	ATOM	1936	CD	GLN	H	39	8.012	10.206	97.003	1.00	17.69	H C
50	ATOM	1937	OE1	GLN	H	39	7.450	10.799	96.080	1.00	22.74	H O
	ATOM	1938	NE2	GLN	H	39	9.069	10.709	97.657	1.00	18.94	H N
	ATOM	1939	N	THR	H	40	5.873	5.960	98.790	1.00	25.08	H N
	ATOM	1940	CA	THR	H	40	4.759	5.695	99.685	1.00	29.28	H C
	ATOM	1941	C	THR	H	40	4.186	6.999	100.217	1.00	33.51	H C
55	ATOM	1942	O	THR	H	40	4.780	8.083	100.063	1.00	32.02	H O
	ATOM	1943	CB	THR	H	40	5.216	4.895	100.892	1.00	31.26	H C
	ATOM	1944	OG1	THR	H	40	6.209	5.658	101.561	1.00	31.13	H O
	ATOM	1945	CG2	THR	H	40	5.773	3.512	100.514	1.00	25.76	H C
	ATOM	1946	N	PRO	H	41	3.022	6.913	100.873	1.00	36.66	H N
60	ATOM	1947	CA	PRO	H	41	2.477	8.172	101.383	1.00	36.86	H C
	ATOM	1948	C	PRO	H	41	3.443	8.778	102.402	1.00	34.19	H C

ATOM	1949	O	PRO	H	41	3.458	9.974	102.614	1.00	31.19	H	O
ATOM	1950	CB	PRO	H	41	1.129	7.754	101.986	1.00	37.38	H	C
ATOM	1951	CG	PRO	H	41	0.734	6.506	101.085	1.00	40.44	H	C
ATOM	1952	CD	PRO	H	41	2.088	5.790	101.047	1.00	34.79	H	C
ATOM	1953	N	GLU	H	42	4.267	7.959	103.020	1.00	33.50	H	N
ATOM	1954	CA	GLU	H	42	5.212	8.508	103.978	1.00	31.61	H	C
ATOM	1955	C	GLU	H	42	6.439	9.112	103.280	1.00	30.07	H	C
ATOM	1956	O	GLU	H	42	7.333	9.576	103.954	1.00	28.54	H	O
ATOM	1957	CB	GLU	H	42	5.637	7.449	104.982	1.00	35.54	H	C
ATOM	1958	CG	GLU	H	42	4.441	6.687	105.587	1.00	46.36	H	C
ATOM	1959	CD	GLU	H	42	3.822	5.712	104.591	1.00	59.41	H	C
ATOM	1960	OE1	GLU	H	42	4.424	4.635	104.358	1.00	59.82	H	O
ATOM	1961	OE2	GLU	H	42	2.748	6.039	104.027	1.00	63.05	H	O
ATOM	1962	N	LYS	H	43	6.428	9.133	101.944	1.00	25.52	H	N
ATOM	1963	CA	LYS	H	43	7.505	9.712	101.126	1.00	24.37	H	C
ATOM	1964	C	LYS	H	43	8.755	8.881	100.935	1.00	24.96	H	C
ATOM	1965	O	LYS	H	43	9.754	9.391	100.407	1.00	22.88	H	O
ATOM	1966	CB	LYS	H	43	7.938	11.087	101.655	1.00	27.09	H	C
ATOM	1967	CG	LYS	H	43	7.326	12.215	100.938	1.00	34.74	H	C
ATOM	1968	CD	LYS	H	43	5.872	12.299	101.209	1.00	51.35	H	C
ATOM	1969	CE	LYS	H	43	5.123	12.594	99.921	1.00	51.99	H	C
ATOM	1970	NZ	LYS	H	43	3.689	12.833	100.223	1.00	50.46	H	N
ATOM	1971	N	ARG	H	44	8.717	7.612	101.318	1.00	25.07	H	N
ATOM	1972	CA	ARG	H	44	9.917	6.778	101.151	1.00	27.51	H	C
ATOM	1973	C	ARG	H	44	9.887	6.273	99.709	1.00	27.18	H	C
ATOM	1974	O	ARG	H	44	8.816	5.960	99.168	1.00	23.86	H	O
ATOM	1975	CB	ARG	H	44	9.897	5.561	102.080	1.00	30.75	H	C
ATOM	1976	CG	ARG	H	44	9.672	5.841	103.567	1.00	44.30	H	C
ATOM	1977	CD	ARG	H	44	10.839	6.497	104.317	1.00	61.82	H	C
ATOM	1978	NE	ARG	H	44	12.097	5.755	104.254	1.00	70.52	H	N
ATOM	1979	CZ	ARG	H	44	13.093	5.869	105.139	1.00	63.42	H	C
ATOM	1980	NH1	ARG	H	44	12.985	6.684	106.193	1.00	51.27	H	N
ATOM	1981	NH2	ARG	H	44	14.233	5.217	104.925	1.00	41.30	H	N
ATOM	1982	N	LEU	H	45	11.057	6.234	99.095	1.00	21.99	H	N
ATOM	1983	CA	LEU	H	45	11.181	5.768	97.723	1.00	23.75	H	C
ATOM	1984	C	LEU	H	45	11.637	4.287	97.779	1.00	22.20	H	C
ATOM	1985	O	LEU	H	45	12.519	3.933	98.550	1.00	21.33	H	O
ATOM	1986	CB	LEU	H	45	12.238	6.607	96.978	1.00	20.46	H	C
ATOM	1987	CG	LEU	H	45	11.743	8.037	96.592	1.00	26.15	H	C
ATOM	1988	CD1	LEU	H	45	12.981	8.967	96.324	1.00	19.17	H	C
ATOM	1989	CD2	LEU	H	45	10.849	8.021	95.337	1.00	7.95	H	C
ATOM	1990	N	GLU	H	46	11.037	3.465	96.940	1.00	21.98	H	N
ATOM	1991	CA	GLU	H	46	11.398	2.041	96.915	1.00	26.58	H	C
ATOM	1992	C	GLU	H	46	11.450	1.571	95.478	1.00	21.11	H	C
ATOM	1993	O	GLU	H	46	10.467	1.731	94.751	1.00	22.21	H	O
ATOM	1994	CB	GLU	H	46	10.311	1.189	97.635	1.00	28.65	H	C
ATOM	1995	CG	GLU	H	46	10.123	1.593	99.117	1.00	49.98	H	C
ATOM	1996	CD	GLU	H	46	8.955	0.846	99.817	1.00	62.45	H	C
ATOM	1997	OE1	GLU	H	46	8.157	0.180	99.090	1.00	54.94	H	O
ATOM	1998	OE2	GLU	H	46	8.861	0.923	101.080	1.00	76.63	H	O
ATOM	1999	N	TRP	H	47	12.586	1.015	95.071	1.00	16.27	H	N
ATOM	2000	CA	TRP	H	47	12.708	0.485	93.728	1.00	17.07	H	C
ATOM	2001	C	TRP	H	47	11.769	-0.762	93.679	1.00	15.27	H	C
ATOM	2002	O	TRP	H	47	11.792	-1.584	94.592	1.00	18.79	H	O
ATOM	2003	CB	TRP	H	47	14.181	0.092	93.501	1.00	19.17	H	C
ATOM	2004	CG	TRP	H	47	14.386	-0.878	92.324	1.00	16.79	H	C
ATOM	2005	CD1	TRP	H	47	14.232	-0.609	90.978	1.00	8.71	H	C
ATOM	2006	CD2	TRP	H	47	14.708	-2.240	92.432	1.00	15.94	H	C
ATOM	2007	NE1	TRP	H	47	14.425	-1.758	90.246	1.00	15.37	H	N
ATOM	2008	CE2	TRP	H	47	14.728	-2.771	91.121	1.00	13.73	H	C
ATOM	2009	CE3	TRP	H	47	14.987	-3.087	93.520	1.00	19.49	H	C

	ATOM	2010	CZ2	TRP	H	47	15.021	-4.120	90.864	1.00	17.65	H	C
	ATOM	2011	CZ3	TRP	H	47	15.280	-4.440	93.257	1.00	11.79	H	C
	ATOM	2012	CH2	TRP	H	47	15.293	-4.929	91.945	1.00	16.64	H	C
	ATOM	2013	N	VAL	H	48	10.976	-0.857	92.613	1.00	16.40	H	N
5	ATOM	2014	CA	VAL	H	48	9.980	-1.935	92.400	1.00	20.27	H	C
	ATOM	2015	C	VAL	H	48	10.328	-2.961	91.316	1.00	17.27	H	C
	ATOM	2016	O	VAL	H	48	9.966	-4.116	91.442	1.00	17.49	H	O
	ATOM	2017	CB	VAL	H	48	8.602	-1.279	92.038	1.00	21.34	H	C
	ATOM	2018	CG1	VAL	H	48	7.611	-2.301	91.498	1.00	24.15	H	C
10	ATOM	2019	CG2	VAL	H	48	8.052	-0.607	93.274	1.00	24.24	H	C
	ATOM	2020	N	ALA	H	49	11.034	-2.548	90.263	1.00	16.96	H	N
	ATOM	2021	CA	ALA	H	49	11.346	-3.493	89.194	1.00	17.77	H	C
	ATOM	2022	C	ALA	H	49	12.206	-2.877	88.154	1.00	19.92	H	C
	ATOM	2023	O	ALA	H	49	12.109	-1.657	87.912	1.00	24.74	H	O
15	ATOM	2024	CB	ALA	H	49	10.021	-3.962	88.495	1.00	16.94	H	C
	ATOM	2025	N	SER	H	50	12.980	-3.721	87.465	1.00	21.88	H	N
	ATOM	2026	CA	SER	H	50	13.807	-3.266	86.363	1.00	21.57	H	C
	ATOM	2027	C	SER	H	50	13.754	-4.316	85.265	1.00	21.78	H	C
	ATOM	2028	O	SER	H	50	13.545	-5.502	85.563	1.00	23.60	H	O
20	ATOM	2029	CB	SER	H	50	15.272	-3.137	86.774	1.00	21.45	H	C
	ATOM	2030	OG	SER	H	50	15.460	-2.078	87.683	1.00	21.58	H	O
	ATOM	2031	N	ILE	H	51	13.900	-3.849	84.036	1.00	20.05	H	N
	ATOM	2032	CA	ILE	H	51	14.003	-4.754	82.858	1.00	17.96	H	C
	ATOM	2033	C	ILE	H	51	15.172	-4.273	81.999	1.00	17.53	H	C
25	ATOM	2034	O	ILE	H	51	15.269	-3.087	81.682	1.00	19.16	H	O
	ATOM	2035	CB	ILE	H	51	12.679	-4.795	82.058	1.00	17.66	H	C
	ATOM	2036	CG1	ILE	H	51	12.796	-5.869	80.958	1.00	23.68	H	C
	ATOM	2037	CG2	ILE	H	51	12.325	-3.407	81.427	1.00	8.10	H	C
	ATOM	2038	CD1	ILE	H	51	11.433	-6.214	80.376	1.00	15.41	H	C
30	ATOM	2039	N	SER	H	52	16.100	-5.176	81.625	1.00	14.90	H	N
	ATOM	2040	CA	SER	H	52	17.264	-4.790	80.816	1.00	15.78	H	C
	ATOM	2041	C	SER	H	52	16.899	-4.630	79.352	1.00	16.46	H	C
	ATOM	2042	O	SER	H	52	15.815	-5.022	78.940	1.00	22.00	H	O
	ATOM	2043	CB	SER	H	52	18.384	-5.853	80.913	1.00	15.21	H	C
35	ATOM	2044	OG	SER	H	52	17.962	-7.063	80.253	1.00	20.35	H	O
	ATOM	2045	N	SER	H	53	17.786	-4.068	78.558	1.00	18.03	H	N
	ATOM	2046	CA	SER	H	53	17.515	-3.925	77.129	1.00	20.13	H	C
	ATOM	2047	C	SER	H	53	17.441	-5.342	76.528	1.00	22.74	H	C
	ATOM	2048	O	SER	H	53	16.774	-5.539	75.518	1.00	26.71	H	O
40	ATOM	2049	CB	SER	H	53	18.645	-3.160	76.445	1.00	20.15	H	C
	ATOM	2050	OG	SER	H	53	19.898	-3.829	76.632	1.00	16.33	H	O
	ATOM	2051	N	GLY	H	54	18.102	-6.314	77.160	1.00	22.48	H	N
	ATOM	2052	CA	GLY	H	54	18.041	-7.697	76.676	1.00	18.24	H	C
	ATOM	2053	C	GLY	H	54	16.805	-8.441	77.176	1.00	22.94	H	C
45	ATOM	2054	O	GLY	H	54	16.562	-9.593	76.800	1.00	22.69	H	O
	ATOM	2055	N	GLY	H	55	16.017	-7.799	78.044	1.00	20.19	H	N
	ATOM	2056	CA	GLY	H	55	14.806	-8.434	78.547	1.00	15.12	H	C
	ATOM	2057	C	GLY	H	55	14.880	-9.146	79.888	1.00	21.67	H	C
	ATOM	2058	O	GLY	H	55	13.904	-9.788	80.282	1.00	25.28	H	O
50	ATOM	2059	N	ASN	H	56	16.014	-9.067	80.586	1.00	21.16	H	N
	ATOM	2060	CA	ASN	H	56	16.144	-9.673	81.915	1.00	23.73	H	C
	ATOM	2061	C	ASN	H	56	15.330	-8.806	82.892	1.00	23.78	H	C
	ATOM	2062	O	ASN	H	56	15.336	-7.577	82.747	1.00	27.58	H	O
	ATOM	2063	CB	ASN	H	56	17.589	-9.632	82.392	1.00	29.97	H	C
55	ATOM	2064	CG	ASN	H	56	18.530	-10.453	81.518	1.00	35.89	H	C
	ATOM	2065	OD1	ASN	H	56	19.747	-10.418	81.706	1.00	35.43	H	O
	ATOM	2066	ND2	ASN	H	56	17.973	-11.194	80.591	1.00	24.91	H	N
	ATOM	2067	N	THR	H	57	14.711	-9.435	83.889	1.00	19.38	H	N
	ATOM	2068	CA	THR	H	57	13.896	-8.717	84.883	1.00	16.47	H	C
60	ATOM	2069	C	THR	H	57	14.475	-8.890	86.270	1.00	19.01	H	C
	ATOM	2070	O	THR	H	57	15.104	-9.903	86.583	1.00	21.14	H	O

ATOM	2071	CB	THR	H	57	12.389	-9.200	84.886	1.00	17.39	H	C
ATOM	2072	OG1	THR	H	57	12.332	-10.589	85.205	1.00	25.30	H	O
ATOM	2073	CG2	THR	H	57	11.732	-8.970	83.551	1.00	16.69	H	C
ATOM	2074	N	TYR	H	58	14.232	-7.896	87.129	1.00	20.35	H	N
ATOM	2075	CA	TYR	H	58	14.754	-7.889	88.475	1.00	17.82	H	C
ATOM	2076	C	TYR	H	58	13.674	-7.248	89.364	1.00	17.82	H	C
ATOM	2077	O	TYR	H	58	13.013	-6.261	88.947	1.00	13.98	H	O
ATOM	2078	CB	TYR	H	58	16.014	-7.016	88.550	1.00	16.91	H	C
ATOM	2079	CG	TYR	H	58	17.033	-7.287	87.445	1.00	21.18	H	C
ATOM	2080	CD1	TYR	H	58	16.817	-6.817	86.147	1.00	20.25	H	C
ATOM	2081	CD2	TYR	H	58	18.224	-7.945	87.722	1.00	24.53	H	C
ATOM	2082	CE1	TYR	H	58	17.759	-6.965	85.163	1.00	17.16	H	C
ATOM	2083	CE2	TYR	H	58	19.180	-8.128	86.727	1.00	32.42	H	C
ATOM	2084	CZ	TYR	H	58	18.932	-7.613	85.451	1.00	33.73	H	C
ATOM	2085	OH	TYR	H	58	19.898	-7.689	84.482	1.00	41.39	H	O
ATOM	2086	N	TYR	H	59	13.553	-7.798	90.562	1.00	17.63	H	N
ATOM	2087	CA	TYR	H	59	12.533	-7.347	91.504	1.00	19.97	H	C
ATOM	2088	C	TYR	H	59	12.996	-7.474	92.932	1.00	18.44	H	C
ATOM	2089	O	TYR	H	59	13.779	-8.349	93.253	1.00	24.99	H	O
ATOM	2090	CB	TYR	H	59	11.246	-8.248	91.436	1.00	20.01	H	C
ATOM	2091	CG	TYR	H	59	10.633	-8.429	90.072	1.00	22.20	H	C
ATOM	2092	CD1	TYR	H	59	10.936	-9.532	89.290	1.00	14.53	H	C
ATOM	2093	CD2	TYR	H	59	9.755	-7.477	89.562	1.00	22.20	H	C
ATOM	2094	CE1	TYR	H	59	10.389	-9.687	88.033	1.00	14.82	H	C
ATOM	2095	CE2	TYR	H	59	9.194	-7.616	88.314	1.00	20.92	H	C
ATOM	2096	CZ	TYR	H	59	9.528	-8.736	87.549	1.00	25.21	H	C
ATOM	2097	OH	TYR	H	59	8.996	-8.828	86.300	1.00	27.97	H	O
ATOM	2098	N	PRO	H	60	12.501	-6.605	93.836	1.00	17.68	H	N
ATOM	2099	CA	PRO	H	60	12.912	-6.760	95.234	1.00	18.52	H	C
ATOM	2100	C	PRO	H	60	11.941	-7.853	95.838	1.00	23.43	H	C
ATOM	2101	O	PRO	H	60	10.854	-8.097	95.286	1.00	21.98	H	O
ATOM	2102	CB	PRO	H	60	12.634	-5.379	95.835	1.00	19.08	H	C
ATOM	2103	CG	PRO	H	60	11.354	-4.978	95.085	1.00	17.15	H	C
ATOM	2104	CD	PRO	H	60	11.714	-5.373	93.638	1.00	15.96	H	C
ATOM	2105	N	ASP	H	61	12.307	-8.462	96.962	1.00	22.56	H	N
ATOM	2106	CA	ASP	H	61	11.431	-9.496	97.562	1.00	23.00	H	C
ATOM	2107	C	ASP	H	61	10.045	-8.987	97.911	1.00	23.44	H	C
ATOM	2108	O	ASP	H	61	9.095	-9.743	97.919	1.00	26.44	H	O
ATOM	2109	CB	ASP	H	61	12.083	-10.074	98.815	1.00	22.98	H	C
ATOM	2110	CG	ASP	H	61	13.287	-10.902	98.504	1.00	27.24	H	C
ATOM	2111	OD1	ASP	H	61	14.042	-11.166	99.439	1.00	27.26	H	O
ATOM	2112	OD2	ASP	H	61	13.482	-11.273	97.327	1.00	28.00	H	O
ATOM	2113	N	SER	H	62	9.912	-7.685	98.170	1.00	27.64	H	N
ATOM	2114	CA	SER	H	62	8.598	-7.107	98.526	1.00	24.00	H	C
ATOM	2115	C	SER	H	62	7.551	-7.281	97.437	1.00	22.42	H	C
ATOM	2116	O	SER	H	62	6.345	-7.272	97.716	1.00	22.71	H	O
ATOM	2117	CB	SER	H	62	8.751	-5.600	98.863	1.00	22.99	H	C
ATOM	2118	OG	SER	H	62	9.242	-4.893	97.736	1.00	22.44	H	O
ATOM	2119	N	VAL	H	63	7.967	-7.402	96.176	1.00	23.61	H	N
ATOM	2120	CA	VAL	H	63	6.968	-7.562	95.130	1.00	26.04	H	C
ATOM	2121	C	VAL	H	63	7.147	-8.789	94.193	1.00	27.76	H	C
ATOM	2122	O	VAL	H	63	6.301	-9.061	93.346	1.00	28.27	H	O
ATOM	2123	CB	VAL	H	63	6.819	-6.253	94.214	1.00	25.05	H	C
ATOM	2124	CG1	VAL	H	63	6.701	-5.013	95.086	1.00	19.86	H	C
ATOM	2125	CG2	VAL	H	63	7.978	-6.125	93.224	1.00	22.12	H	C
ATOM	2126	N	LYS	H	64	8.263	-9.483	94.325	1.00	34.01	H	N
ATOM	2127	CA	LYS	H	64	8.553	-10.649	93.477	1.00	37.73	H	C
ATOM	2128	C	LYS	H	64	7.431	-11.666	93.629	1.00	36.21	H	C
ATOM	2129	O	LYS	H	64	6.985	-11.943	94.732	1.00	40.72	H	O
ATOM	2130	CB	LYS	H	64	9.870	-11.288	93.897	1.00	40.50	H	C
ATOM	2131	CG	LYS	H	64	10.493	-12.165	92.823	1.00	49.69	H	C

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ATOM   2132  CD  LYS H  64      11.595 -12.977  93.447  1.00 67.46      H    C
ATOM   2133  CE  LYS H  64      12.336 -13.781  92.388  1.00 84.78      H    C
ATOM   2134  NZ  LYS H  64      12.931 -15.014  93.018  1.00 92.94      H    N
ATOM   2135  N   GLY H  65       6.967 -12.177  92.504  1.00 34.99      H    N
ATOM   2136  CA  GLY H  65       5.876 -13.134  92.522  1.00 33.39      H    C
ATOM   2137  C   GLY H  65       4.544 -12.447  92.308  1.00 33.65      H    C
ATOM   2138  O   GLY H  65       3.593 -13.076  91.859  1.00 40.69      H    O
ATOM   2139  N   ARG H  66       4.471 -11.147  92.609  1.00 29.54      H    N
ATOM   2140  CA  ARG H  66       3.222 -10.420  92.455  1.00 23.99      H    C
ATOM   2141  C   ARG H  66       3.205  -9.377  91.343  1.00 27.36      H    C
ATOM   2142  O   ARG H  66       2.144  -9.079  90.802  1.00 26.62      H    O
ATOM   2143  CB  ARG H  66       2.872  -9.740  93.767  1.00 24.49      H    C
ATOM   2144  CG  ARG H  66       2.673 -10.671  94.956  1.00 20.93      H    C
ATOM   2145  CD  ARG H  66       2.156  -9.875  96.177  1.00 26.28      H    C
ATOM   2146  NE  ARG H  66       3.013  -8.738  96.549  1.00 26.58      H    N
ATOM   2147  CZ  ARG H  66       2.590  -7.468  96.631  1.00 23.28      H    C
ATOM   2148  NH1 ARG H  66       1.325  -7.156  96.356  1.00 20.50      H    N
ATOM   2149  NH2 ARG H  66       3.429  -6.513  97.026  1.00 23.33      H    N
ATOM   2150  N   PHE H  67       4.377  -8.805  91.041  1.00 28.25      H    N
ATOM   2151  CA  PHE H  67       4.527  -7.775  90.002  1.00 28.94      H    C
ATOM   2152  C   PHE H  67       5.356  -8.293  88.845  1.00 27.61      H    C
ATOM   2153  O   PHE H  67       6.344  -8.982  89.047  1.00 28.35      H    O
ATOM   2154  CB  PHE H  67       5.291  -6.533  90.563  1.00 32.76      H    C
ATOM   2155  CG  PHE H  67       4.496  -5.690  91.510  1.00 35.90      H    C
ATOM   2156  CD1 PHE H  67       3.336  -6.190  92.108  1.00 32.82      H    C
ATOM   2157  CD2 PHE H  67       4.934  -4.407  91.843  1.00 27.67      H    C
ATOM   2158  CE1 PHE H  67       2.620  -5.421  93.032  1.00 37.74      H    C
ATOM   2159  CE2 PHE H  67       4.236  -3.644  92.758  1.00 34.67      H    C
ATOM   2160  CZ  PHE H  67       3.081  -4.138  93.358  1.00 41.48      H    C
ATOM   2161  N   THR H  68       4.962  -7.937  87.637  1.00 28.82      H    N
ATOM   2162  CA  THR H  68       5.726  -8.301  86.457  1.00 29.24      H    C
ATOM   2163  C   THR H  68       5.964  -7.073  85.574  1.00 28.81      H    C
ATOM   2164  O   THR H  68       5.009  -6.399  85.175  1.00 29.95      H    O
ATOM   2165  CB  THR H  68       4.940  -9.382  85.611  1.00 31.63      H    C
ATOM   2166  OG1 THR H  68       4.660 -10.484  86.463  1.00 28.51      H    O
ATOM   2167  CG2 THR H  68       5.735  -9.824  84.396  1.00 17.86      H    C
ATOM   2168  N   ILE H  69       7.227  -6.779  85.268  1.00 24.66      H    N
ATOM   2169  CA  ILE H  69       7.546  -5.666  84.369  1.00 25.58      H    C
ATOM   2170  C   ILE H  69       7.756  -6.235  82.965  1.00 27.22      H    C
ATOM   2171  O   ILE H  69       8.245  -7.357  82.839  1.00 31.09      H    O
ATOM   2172  CB  ILE H  69       8.852  -4.947  84.841  1.00 26.43      H    C
ATOM   2173  CG1 ILE H  69       9.127  -3.732  83.959  1.00 18.67      H    C
ATOM   2174  CG2 ILE H  69      10.060  -5.907  84.829  1.00 28.93      H    C
ATOM   2175  CD1 ILE H  69      10.299  -2.888  84.578  1.00 22.12      H    C
ATOM   2176  N   SER H  70       7.369  -5.492  81.924  1.00 24.59      H    N
ATOM   2177  CA  SER H  70       7.542  -5.962  80.560  1.00 20.35      H    C
ATOM   2178  C   SER H  70       7.651  -4.750  79.670  1.00 20.76      H    C
ATOM   2179  O   SER H  70       7.380  -3.642  80.110  1.00 22.20      H    O
ATOM   2180  CB  SER H  70       6.326  -6.838  80.156  1.00 18.01      H    C
ATOM   2181  OG  SER H  70       5.148  -6.082  80.171  1.00 19.53      H    O
ATOM   2182  N   ARG H  71       8.080  -4.931  78.430  1.00 21.74      H    N
ATOM   2183  CA  ARG H  71       8.197  -3.810  77.546  1.00 22.80      H    C
ATOM   2184  C   ARG H  71       7.718  -4.155  76.155  1.00 25.05      H    C
ATOM   2185  O   ARG H  71       7.855  -5.291  75.693  1.00 28.88      H    O
ATOM   2186  CB  ARG H  71       9.679  -3.350  77.440  1.00 22.32      H    C
ATOM   2187  CG  ARG H  71      10.654  -4.473  76.878  1.00 17.63      H    C
ATOM   2188  CD  ARG H  71      12.132  -4.115  77.230  1.00 13.84      H    C
ATOM   2189  NE  ARG H  71      12.522  -2.868  76.577  1.00 26.63      H    N
ATOM   2190  CZ  ARG H  71      13.529  -2.079  76.974  1.00 20.51      H    C
ATOM   2191  NH1 ARG H  71      14.253  -2.413  78.030  1.00 13.73      H    N
ATOM   2192  NH2 ARG H  71      13.792  -0.972  76.324  1.00 17.61      H    N
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	ATOM	2193	N	ASP	H	72	7.190	-3.165	75.464	1.00	24.41	H	N
	ATOM	2194	CA	ASP	H	72	6.788	-3.397	74.094	1.00	24.18	H	C
	ATOM	2195	C	ASP	H	72	7.709	-2.502	73.272	1.00	25.45	H	C
	ATOM	2196	O	ASP	H	72	7.498	-1.297	73.158	1.00	25.31	H	O
5	ATOM	2197	CB	ASP	H	72	5.333	-2.998	73.865	1.00	27.17	H	C
	ATOM	2198	CG	ASP	H	72	4.914	-3.198	72.416	1.00	30.78	H	C
	ATOM	2199	OD1	ASP	H	72	5.759	-2.993	71.510	1.00	33.98	H	O
	ATOM	2200	OD2	ASP	H	72	3.741	-3.535	72.194	1.00	38.58	H	O
	ATOM	2201	N	ASN	H	73	8.752	-3.105	72.711	1.00	26.35	H	N
10	ATOM	2202	CA	ASN	H	73	9.720	-2.377	71.912	1.00	29.04	H	C
	ATOM	2203	C	ASN	H	73	9.235	-1.837	70.569	1.00	31.02	H	C
	ATOM	2204	O	ASN	H	73	9.895	-1.011	69.945	1.00	28.40	H	O
	ATOM	2205	CB	ASN	H	73	10.958	-3.246	71.675	1.00	31.88	H	C
	ATOM	2206	CG	ASN	H	73	11.812	-3.396	72.923	1.00	32.53	H	C
15	ATOM	2207	OD1	ASN	H	73	11.632	-2.669	73.912	1.00	42.74	H	O
	ATOM	2208	ND2	ASN	H	73	12.759	-4.319	72.877	1.00	33.41	H	N
	ATOM	2209	N	ALA	H	74	8.076	-2.276	70.115	1.00	32.65	H	N
	ATOM	2210	CA	ALA	H	74	7.595	-1.739	68.853	1.00	32.57	H	C
	ATOM	2211	C	ALA	H	74	6.852	-0.422	69.164	1.00	33.69	H	C
20	ATOM	2212	O	ALA	H	74	6.922	0.547	68.421	1.00	31.16	H	O
	ATOM	2213	CB	ALA	H	74	6.660	-2.771	68.187	1.00	29.62	H	C
	ATOM	2214	N	ARG	H	75	6.189	-0.399	70.311	1.00	32.12	H	N
	ATOM	2215	CA	ARG	H	75	5.408	0.758	70.729	1.00	32.75	H	C
	ATOM	2216	C	ARG	H	75	6.097	1.695	71.737	1.00	29.96	H	C
25	ATOM	2217	O	ARG	H	75	5.565	2.771	72.030	1.00	28.48	H	O
	ATOM	2218	CB	ARG	H	75	4.071	0.276	71.327	1.00	35.04	H	C
	ATOM	2219	CG	ARG	H	75	3.111	-0.412	70.334	1.00	40.61	H	C
	ATOM	2220	CD	ARG	H	75	1.825	-0.875	71.046	1.00	61.45	H	C
	ATOM	2221	NE	ARG	H	75	0.853	-1.612	70.224	1.00	68.33	H	N
30	ATOM	2222	CZ	ARG	H	75	1.029	-2.841	69.731	1.00	69.94	H	C
	ATOM	2223	NH1	ARG	H	75	2.157	-3.513	69.950	1.00	60.61	H	N
	ATOM	2224	NH2	ARG	H	75	0.045	-3.419	69.040	1.00	70.68	H	N
	ATOM	2225	N	ASN	H	76	7.271	1.307	72.249	1.00	27.39	H	N
	ATOM	2226	CA	ASN	H	76	7.995	2.149	73.236	1.00	22.45	H	C
35	ATOM	2227	C	ASN	H	76	7.114	2.344	74.461	1.00	24.26	H	C
	ATOM	2228	O	ASN	H	76	6.883	3.462	74.915	1.00	27.85	H	O
	ATOM	2229	CB	ASN	H	76	8.347	3.546	72.680	1.00	22.88	H	C
	ATOM	2230	CG	ASN	H	76	9.606	3.558	71.780	1.00	30.19	H	C
	ATOM	2231	OD1	ASN	H	76	10.162	4.622	71.501	1.00	45.69	H	O
40	ATOM	2232	ND2	ASN	H	76	10.045	2.411	71.354	1.00	27.13	H	N
	ATOM	2233	N	ILE	H	77	6.624	1.251	75.001	1.00	20.55	H	N
	ATOM	2234	CA	ILE	H	77	5.783	1.289	76.166	1.00	21.43	H	C
	ATOM	2235	C	ILE	H	77	6.347	0.293	77.178	1.00	26.35	H	C
	ATOM	2236	O	ILE	H	77	6.750	-0.825	76.833	1.00	27.67	H	O
45	ATOM	2237	CB	ILE	H	77	4.314	0.848	75.819	1.00	25.31	H	C
	ATOM	2238	CG1	ILE	H	77	3.752	1.702	74.674	1.00	31.02	H	C
	ATOM	2239	CG2	ILE	H	77	3.455	0.930	77.069	1.00	24.50	H	C
	ATOM	2240	CD1	ILE	H	77	2.332	1.304	74.167	1.00	18.41	H	C
	ATOM	2241	N	LEU	H	78	6.381	0.703	78.436	1.00	27.91	H	N
50	ATOM	2242	CA	LEU	H	78	6.874	-0.106	79.528	1.00	24.89	H	C
	ATOM	2243	C	LEU	H	78	5.645	-0.396	80.365	1.00	24.76	H	C
	ATOM	2244	O	LEU	H	78	4.866	0.506	80.598	1.00	25.50	H	O
	ATOM	2245	CB	LEU	H	78	7.851	0.727	80.405	1.00	24.49	H	C
	ATOM	2246	CG	LEU	H	78	8.376	0.043	81.650	1.00	18.05	H	C
55	ATOM	2247	CD1	LEU	H	78	9.449	-1.026	81.241	1.00	27.00	H	C
	ATOM	2248	CD2	LEU	H	78	9.068	1.102	82.532	1.00	15.70	H	C
	ATOM	2249	N	TYR	H	79	5.484	-1.630	80.833	1.00	26.11	H	N
	ATOM	2250	CA	TYR	H	79	4.330	-1.997	81.662	1.00	25.62	H	C
	ATOM	2251	C	TYR	H	79	4.720	-2.514	83.014	1.00	27.75	H	C
60	ATOM	2252	O	TYR	H	79	5.827	-3.036	83.193	1.00	29.83	H	O
	ATOM	2253	CB	TYR	H	79	3.525	-3.156	80.994	1.00	22.60	H	C

ATOM	2254	CG	TYR	H	79	2.952	-2.791	79.652	1.00	27.08	H	C
ATOM	2255	CD1	TYR	H	79	3.565	-3.195	78.479	1.00	20.92	H	C
ATOM	2256	CD2	TYR	H	79	1.791	-2.020	79.556	1.00	24.64	H	C
ATOM	2257	CE1	TYR	H	79	3.048	-2.848	77.247	1.00	24.71	H	C
ATOM	2258	CE2	TYR	H	79	1.277	-1.668	78.323	1.00	21.72	H	C
ATOM	2259	CZ	TYR	H	79	1.908	-2.084	77.173	1.00	24.82	H	C
ATOM	2260	OH	TYR	H	79	1.423	-1.711	75.935	1.00	21.43	H	O
ATOM	2261	N	LEU	H	80	3.779	-2.429	83.964	1.00	25.48	H	N
ATOM	2262	CA	LEU	H	80	3.947	-3.007	85.272	1.00	25.75	H	C
ATOM	2263	C	LEU	H	80	2.592	-3.669	85.596	1.00	27.57	H	C
ATOM	2264	O	LEU	H	80	1.599	-2.983	85.835	1.00	34.28	H	O
ATOM	2265	CB	LEU	H	80	4.245	-1.992	86.409	1.00	25.22	H	C
ATOM	2266	CG	LEU	H	80	4.468	-2.735	87.754	1.00	26.52	H	C
ATOM	2267	CD1	LEU	H	80	5.836	-3.504	87.721	1.00	18.29	H	C
ATOM	2268	CD2	LEU	H	80	4.552	-1.721	88.992	1.00	20.69	H	C
ATOM	2269	N	GLN	H	81	2.550	-4.993	85.563	1.00	30.10	H	N
ATOM	2270	CA	GLN	H	81	1.318	-5.716	85.905	1.00	32.07	H	C
ATOM	2271	C	GLN	H	81	1.409	-6.033	87.376	1.00	30.52	H	C
ATOM	2272	O	GLN	H	81	2.379	-6.674	87.832	1.00	30.77	H	O
ATOM	2273	CB	GLN	H	81	1.224	-7.029	85.104	1.00	34.27	H	C
ATOM	2274	CG	GLN	H	81	0.084	-7.955	85.580	1.00	36.03	H	C
ATOM	2275	CD	GLN	H	81	-1.266	-7.341	85.316	1.00	40.10	H	C
ATOM	2276	OE1	GLN	H	81	-2.047	-7.096	86.248	1.00	35.51	H	O
ATOM	2277	NE2	GLN	H	81	-1.543	-7.047	84.053	1.00	29.75	H	N
ATOM	2278	N	MET	H	82	0.428	-5.573	88.153	1.00	29.32	H	N
ATOM	2279	CA	MET	H	82	0.446	-5.840	89.579	1.00	31.69	H	C
ATOM	2280	C	MET	H	82	-0.719	-6.757	89.911	1.00	33.42	H	C
ATOM	2281	O	MET	H	82	-1.784	-6.580	89.386	1.00	37.22	H	O
ATOM	2282	CB	MET	H	82	0.305	-4.526	90.380	1.00	32.57	H	C
ATOM	2283	CG	MET	H	82	1.424	-3.501	90.097	1.00	34.83	H	C
ATOM	2284	SD	MET	H	82	1.236	-1.930	91.036	1.00	41.35	H	S
ATOM	2285	CE	MET	H	82	0.076	-1.286	90.153	1.00	21.34	H	C
ATOM	2286	N	SER	H	82A	-0.500	-7.722	90.789	1.00	33.87	H	N
ATOM	2287	CA	SER	H	82A	-1.553	-8.656	91.161	1.00	32.69	H	C
ATOM	2288	C	SER	H	82A	-1.455	-8.809	92.664	1.00	30.35	H	C
ATOM	2289	O	SER	H	82A	-0.448	-8.439	93.253	1.00	27.66	H	O
ATOM	2290	CB	SER	H	82A	-1.309	-10.011	90.445	1.00	30.90	H	C
ATOM	2291	OG	SER	H	82A	-0.074	-10.562	90.886	1.00	39.97	H	O
ATOM	2292	N	SER	H	82B	-2.456	-9.444	93.270	1.00	30.11	H	N
ATOM	2293	CA	SER	H	82B	-2.532	-9.614	94.738	1.00	32.59	H	C
ATOM	2294	C	SER	H	82B	-2.084	-8.329	95.464	1.00	34.41	H	C
ATOM	2295	O	SER	H	82B	-1.256	-8.387	96.386	1.00	34.38	H	O
ATOM	2296	CB	SER	H	82B	-1.670	-10.769	95.249	1.00	31.62	H	C
ATOM	2297	OG	SER	H	82B	-1.941	-11.975	94.545	1.00	39.73	H	O
ATOM	2298	N	LEU	H	82C	-2.646	-7.194	95.050	1.00	34.50	H	N
ATOM	2299	CA	LEU	H	82C	-2.300	-5.892	95.687	1.00	34.52	H	C
ATOM	2300	C	LEU	H	82C	-2.677	-5.867	97.154	1.00	33.77	H	C
ATOM	2301	O	LEU	H	82C	-3.731	-6.405	97.563	1.00	36.50	H	O
ATOM	2302	CB	LEU	H	82C	-2.965	-4.745	94.923	1.00	31.33	H	C
ATOM	2303	CG	LEU	H	82C	-2.300	-4.508	93.556	1.00	29.69	H	C
ATOM	2304	CD1	LEU	H	82C	-3.142	-3.680	92.586	1.00	14.81	H	C
ATOM	2305	CD2	LEU	H	82C	-0.928	-3.764	93.850	1.00	22.96	H	C
ATOM	2306	N	ARG	H	83	-1.794	-5.270	97.953	1.00	37.50	H	N
ATOM	2307	CA	ARG	H	83	-1.967	-5.119	99.404	1.00	37.28	H	C
ATOM	2308	C	ARG	H	83	-2.044	-3.624	99.699	1.00	35.39	H	C
ATOM	2309	O	ARG	H	83	-1.641	-2.802	98.859	1.00	34.41	H	O
ATOM	2310	CB	ARG	H	83	-0.753	-5.691	100.115	1.00	35.83	H	C
ATOM	2311	CG	ARG	H	83	-0.474	-7.134	99.749	1.00	44.13	H	C
ATOM	2312	CD	ARG	H	83	0.963	-7.485	100.035	1.00	58.61	H	C
ATOM	2313	NE	ARG	H	83	1.255	-8.881	99.733	1.00	65.92	H	N
ATOM	2314	CZ	ARG	H	83	2.452	-9.433	99.885	1.00	68.29	H	C

ATOM	2315	NH1	ARG	H	83	3.467	-8.701	100.328	1.00	66.48	H	N
ATOM	2316	NH2	ARG	H	83	2.628	-10.727	99.618	1.00	76.67	H	N
ATOM	2317	N	SER	H	84	-2.518	-3.268	100.887	1.00	33.54	H	N
ATOM	2318	CA	SER	H	84	-2.634	-1.854	101.209	1.00	31.43	H	C
ATOM	2319	C	SER	H	84	-1.268	-1.181	101.096	1.00	30.46	H	C
ATOM	2320	O	SER	H	84	-1.188	-0.048	100.617	1.00	27.90	H	O
ATOM	2321	CB	SER	H	84	-3.221	-1.658	102.606	1.00	32.69	H	C
ATOM	2322	OG	SER	H	84	-2.301	-1.987	103.617	1.00	45.64	H	O
ATOM	2323	N	GLU	H	85	-0.218	-1.906	101.491	1.00	27.55	H	N
ATOM	2324	CA	GLU	H	85	1.174	-1.437	101.453	1.00	28.67	H	C
ATOM	2325	C	GLU	H	85	1.693	-1.073	100.071	1.00	27.89	H	C
ATOM	2326	O	GLU	H	85	2.728	-0.431	99.984	1.00	31.91	H	O
ATOM	2327	CB	GLU	H	85	2.153	-2.463	102.036	1.00	28.80	H	C
ATOM	2328	CG	GLU	H	85	1.715	-3.123	103.296	1.00	46.74	H	C
ATOM	2329	CD	GLU	H	85	0.844	-4.321	103.003	1.00	56.38	H	C
ATOM	2330	OE1	GLU	H	85	1.397	-5.388	102.632	1.00	62.51	H	O
ATOM	2331	OE2	GLU	H	85	-0.389	-4.180	103.105	1.00	56.24	H	O
ATOM	2332	N	ASP	H	86	1.030	-1.524	99.009	1.00	25.29	H	N
ATOM	2333	CA	ASP	H	86	1.429	-1.160	97.655	1.00	25.71	H	C
ATOM	2334	C	ASP	H	86	0.845	0.226	97.273	1.00	26.77	H	C
ATOM	2335	O	ASP	H	86	1.075	0.712	96.147	1.00	25.68	H	O
ATOM	2336	CB	ASP	H	86	0.906	-2.178	96.624	1.00	26.58	H	C
ATOM	2337	CG	ASP	H	86	1.418	-3.603	96.877	1.00	32.52	H	C
ATOM	2338	OD1	ASP	H	86	0.586	-4.562	96.763	1.00	30.42	H	O
ATOM	2339	OD2	ASP	H	86	2.627	-3.765	97.172	1.00	29.99	H	O
ATOM	2340	N	THR	H	87	0.072	0.851	98.176	1.00	23.93	H	N
ATOM	2341	CA	THR	H	87	-0.531	2.165	97.842	1.00	23.44	H	C
ATOM	2342	C	THR	H	87	0.661	3.163	97.690	1.00	22.23	H	C
ATOM	2343	O	THR	H	87	1.447	3.314	98.591	1.00	21.36	H	O
ATOM	2344	CB	THR	H	87	-1.458	2.654	98.956	1.00	26.73	H	C
ATOM	2345	OG1	THR	H	87	-2.623	1.808	98.992	1.00	26.03	H	O
ATOM	2346	CG2	THR	H	87	-1.881	4.145	98.709	1.00	28.47	H	C
ATOM	2347	N	ALA	H	88	0.722	3.845	96.568	1.00	19.07	H	N
ATOM	2348	CA	ALA	H	88	1.889	4.717	96.354	1.00	17.45	H	C
ATOM	2349	C	ALA	H	88	1.815	5.404	95.052	1.00	21.75	H	C
ATOM	2350	O	ALA	H	88	0.972	5.103	94.182	1.00	21.21	H	O
ATOM	2351	CB	ALA	H	88	3.162	3.843	96.361	1.00	14.94	H	C
ATOM	2352	N	MET	H	89	2.746	6.358	94.868	1.00	22.41	H	N
ATOM	2353	CA	MET	H	89	2.827	7.001	93.570	1.00	24.72	H	C
ATOM	2354	C	MET	H	89	3.794	6.092	92.835	1.00	22.60	H	C
ATOM	2355	O	MET	H	89	4.839	5.790	93.399	1.00	26.75	H	O
ATOM	2356	CB	MET	H	89	3.516	8.378	93.679	1.00	24.18	H	C
ATOM	2357	CG	MET	H	89	3.623	9.117	92.352	1.00	24.57	H	C
ATOM	2358	SD	MET	H	89	2.092	9.565	91.500	1.00	31.14	H	S
ATOM	2359	CE	MET	H	89	1.586	10.985	92.556	1.00	17.32	H	C
ATOM	2360	N	TYR	H	90	3.478	5.699	91.598	1.00	19.66	H	N
ATOM	2361	CA	TYR	H	90	4.390	4.838	90.830	1.00	18.76	H	C
ATOM	2362	C	TYR	H	90	5.026	5.618	89.717	1.00	19.48	H	C
ATOM	2363	O	TYR	H	90	4.343	6.131	88.836	1.00	18.22	H	O
ATOM	2364	CB	TYR	H	90	3.643	3.600	90.214	1.00	16.54	H	C
ATOM	2365	CG	TYR	H	90	3.375	2.566	91.286	1.00	14.14	H	C
ATOM	2366	CD1	TYR	H	90	4.172	1.427	91.392	1.00	9.33	H	C
ATOM	2367	CD2	TYR	H	90	2.376	2.772	92.251	1.00	22.63	H	C
ATOM	2368	CE1	TYR	H	90	3.988	0.522	92.425	1.00	15.98	H	C
ATOM	2369	CE2	TYR	H	90	2.197	1.887	93.285	1.00	13.30	H	C
ATOM	2370	CZ	TYR	H	90	3.009	0.760	93.361	1.00	24.24	H	C
ATOM	2371	OH	TYR	H	90	2.835	-0.114	94.384	1.00	21.02	H	O
ATOM	2372	N	TYR	H	91	6.368	5.669	89.721	1.00	20.31	H	N
ATOM	2373	CA	TYR	H	91	7.094	6.384	88.651	1.00	17.12	H	C
ATOM	2374	C	TYR	H	91	7.769	5.400	87.681	1.00	19.92	H	C
ATOM	2375	O	TYR	H	91	8.393	4.441	88.121	1.00	18.18	H	O

ATOM	2376	CB	TYR	H	91	8.251	7.216	89.226	1.00	15.44	H	C
ATOM	2377	CG	TYR	H	91	7.793	8.338	90.138	1.00	17.08	H	C
ATOM	2378	CD1	TYR	H	91	7.818	8.208	91.507	1.00	9.66	H	C
ATOM	2379	CD2	TYR	H	91	7.339	9.525	89.589	1.00	15.29	H	C
ATOM	2380	CE1	TYR	H	91	7.408	9.260	92.338	1.00	16.34	H	C
ATOM	2381	CE2	TYR	H	91	6.901	10.577	90.398	1.00	15.56	H	C
ATOM	2382	CZ	TYR	H	91	6.944	10.446	91.755	1.00	21.42	H	C
ATOM	2383	OH	TYR	H	91	6.544	11.517	92.547	1.00	8.81	H	O
ATOM	2384	N	CYS	H	92	7.650	5.733	86.397	1.00	21.55	H	N
ATOM	2385	CA	CYS	H	92	8.311	5.065	85.278	1.00	22.10	H	C
ATOM	2386	C	CYS	H	92	9.709	5.751	85.270	1.00	20.94	H	C
ATOM	2387	O	CYS	H	92	9.771	6.959	85.435	1.00	20.43	H	O
ATOM	2388	CB	CYS	H	92	7.602	5.498	83.987	1.00	18.81	H	C
ATOM	2389	SG	CYS	H	92	8.429	4.801	82.569	1.00	32.60	H	S
ATOM	2390	N	ALA	H	93	10.805	5.022	85.095	1.00	18.52	H	N
ATOM	2391	CA	ALA	H	93	12.107	5.684	85.085	1.00	15.79	H	C
ATOM	2392	C	ALA	H	93	13.066	5.019	84.068	1.00	15.40	H	C
ATOM	2393	O	ALA	H	93	13.031	3.780	83.898	1.00	20.16	H	O
ATOM	2394	CB	ALA	H	93	12.737	5.604	86.462	1.00	16.78	H	C
ATOM	2395	N	ARG	H	94	13.898	5.821	83.402	1.00	15.89	H	N
ATOM	2396	CA	ARG	H	94	14.873	5.224	82.480	1.00	17.43	H	C
ATOM	2397	C	ARG	H	94	16.031	4.849	83.374	1.00	17.10	H	C
ATOM	2398	O	ARG	H	94	16.607	5.705	84.058	1.00	16.11	H	O
ATOM	2399	CB	ARG	H	94	15.325	6.211	81.417	1.00	13.45	H	C
ATOM	2400	CG	ARG	H	94	16.050	5.523	80.238	1.00	15.86	H	C
ATOM	2401	CD	ARG	H	94	16.477	6.566	79.242	1.00	13.79	H	C
ATOM	2402	NE	ARG	H	94	17.730	7.229	79.580	1.00	17.29	H	N
ATOM	2403	CZ	ARG	H	94	18.301	8.146	78.818	1.00	20.35	H	C
ATOM	2404	NH1	ARG	H	94	17.705	8.549	77.664	1.00	13.04	H	N
ATOM	2405	NH2	ARG	H	94	19.520	8.602	79.142	1.00	15.82	H	N
ATOM	2406	N	LEU	H	95	16.397	3.565	83.350	1.00	19.09	H	N
ATOM	2407	CA	LEU	H	95	17.469	3.079	84.217	1.00	17.64	H	C
ATOM	2408	C	LEU	H	95	18.737	3.085	83.375	1.00	19.46	H	C
ATOM	2409	O	LEU	H	95	18.912	2.219	82.515	1.00	20.81	H	O
ATOM	2410	CB	LEU	H	95	17.117	1.676	84.700	1.00	16.97	H	C
ATOM	2411	CG	LEU	H	95	18.301	1.013	85.430	1.00	19.81	H	C
ATOM	2412	CD1	LEU	H	95	18.891	2.007	86.390	1.00	26.56	H	C
ATOM	2413	CD2	LEU	H	95	17.837	-0.192	86.136	1.00	17.57	H	C
ATOM	2414	N	ASP	H	96	19.597	4.078	83.580	1.00	18.64	H	N
ATOM	2415	CA	ASP	H	96	20.811	4.187	82.758	1.00	18.97	H	C
ATOM	2416	C	ASP	H	96	21.900	3.220	83.242	1.00	18.94	H	C
ATOM	2417	O	ASP	H	96	22.915	3.065	82.569	1.00	14.63	H	O
ATOM	2418	CB	ASP	H	96	21.338	5.617	82.723	1.00	20.09	H	C
ATOM	2419	CG	ASP	H	96	20.502	6.519	81.755	1.00	19.58	H	C
ATOM	2420	OD1	ASP	H	96	19.319	6.184	81.578	1.00	26.69	H	O
ATOM	2421	OD2	ASP	H	96	21.002	7.513	81.224	1.00	11.72	H	O
ATOM	2422	N	GLY	H	97	21.663	2.627	84.402	1.00	15.66	H	N
ATOM	2423	CA	GLY	H	97	22.574	1.601	84.922	1.00	16.17	H	C
ATOM	2424	C	GLY	H	97	23.126	1.821	86.310	1.00	16.48	H	C
ATOM	2425	O	GLY	H	97	23.064	2.935	86.841	1.00	14.75	H	O
ATOM	2426	N	TYR	H	98	23.737	0.782	86.887	1.00	12.61	H	N
ATOM	2427	CA	TYR	H	98	24.259	0.958	88.226	1.00	13.48	H	C
ATOM	2428	C	TYR	H	98	25.374	2.029	88.271	1.00	14.66	H	C
ATOM	2429	O	TYR	H	98	25.598	2.639	89.299	1.00	15.42	H	O
ATOM	2430	CB	TYR	H	98	24.709	-0.385	88.870	1.00	15.11	H	C
ATOM	2431	CG	TYR	H	98	25.762	-1.194	88.104	1.00	12.19	H	C
ATOM	2432	CD1	TYR	H	98	27.123	-1.116	88.450	1.00	18.17	H	C
ATOM	2433	CD2	TYR	H	98	25.384	-2.089	87.124	1.00	12.48	H	C
ATOM	2434	CE1	TYR	H	98	28.089	-1.955	87.822	1.00	18.60	H	C
ATOM	2435	CE2	TYR	H	98	26.330	-2.917	86.489	1.00	8.78	H	C
ATOM	2436	CZ	TYR	H	98	27.651	-2.853	86.838	1.00	9.46	H	C

ATOM	2437	OH	TYR	H	98	28.553	-3.723	86.277	1.00	13.71	H	O
ATOM	2438	N	TYR	H	99	26.025	2.308	87.154	1.00	10.25	H	N
ATOM	2439	CA	TYR	H	99	27.038	3.382	87.160	1.00	11.42	H	C
ATOM	2440	C	TYR	H	99	26.476	4.782	86.874	1.00	13.38	H	C
ATOM	2441	O	TYR	H	99	27.213	5.755	86.930	1.00	11.93	H	O
ATOM	2442	CB	TYR	H	99	28.127	3.102	86.073	1.00	9.58	H	C
ATOM	2443	CG	TYR	H	99	29.112	2.030	86.522	1.00	11.24	H	C
ATOM	2444	CD1	TYR	H	99	29.940	2.265	87.613	1.00	16.63	H	C
ATOM	2445	CD2	TYR	H	99	29.206	0.785	85.850	1.00	15.72	H	C
ATOM	2446	CE1	TYR	H	99	30.872	1.295	88.063	1.00	17.96	H	C
ATOM	2447	CE2	TYR	H	99	30.145	-0.222	86.275	1.00	20.42	H	C
ATOM	2448	CZ	TYR	H	99	30.951	0.069	87.386	1.00	16.74	H	C
ATOM	2449	OH	TYR	H	99	31.813	-0.917	87.795	1.00	14.93	H	O
ATOM	2450	N	PHE	H	100	25.185	4.855	86.518	1.00	14.05	H	N
ATOM	2451	CA	PHE	H	100	24.563	6.095	86.063	1.00	12.94	H	C
ATOM	2452	C	PHE	H	100	23.283	6.544	86.789	1.00	15.00	H	C
ATOM	2453	O	PHE	H	100	22.930	7.725	86.705	1.00	16.90	H	O
ATOM	2454	CB	PHE	H	100	24.268	5.977	84.529	1.00	13.53	H	C
ATOM	2455	CG	PHE	H	100	25.550	5.835	83.677	1.00	12.84	H	C
ATOM	2456	CD1	PHE	H	100	25.918	4.597	83.136	1.00	12.65	H	C
ATOM	2457	CD2	PHE	H	100	26.353	6.921	83.426	1.00	15.24	H	C
ATOM	2458	CE1	PHE	H	100	27.068	4.469	82.358	1.00	12.14	H	C
ATOM	2459	CE2	PHE	H	100	27.515	6.797	82.639	1.00	14.00	H	C
ATOM	2460	CZ	PHE	H	100	27.862	5.563	82.110	1.00	12.32	H	C
ATOM	2461	N	GLY	H	100A	22.604	5.615	87.466	1.00	13.85	H	N
ATOM	2462	CA	GLY	H	100A	21.381	5.986	88.197	1.00	12.56	H	C
ATOM	2463	C	GLY	H	100A	20.108	6.047	87.364	1.00	13.56	H	C
ATOM	2464	O	GLY	H	100A	20.105	5.714	86.192	1.00	16.72	H	O
ATOM	2465	N	PHE	H	100B	19.013	6.516	87.980	1.00	14.22	H	N
ATOM	2466	CA	PHE	H	100B	17.722	6.639	87.266	1.00	16.09	H	C
ATOM	2467	C	PHE	H	100B	17.797	8.041	86.665	1.00	19.51	H	C
ATOM	2468	O	PHE	H	100B	17.537	9.028	87.347	1.00	18.58	H	O
ATOM	2469	CB	PHE	H	100B	16.579	6.550	88.321	1.00	15.67	H	C
ATOM	2470	CG	PHE	H	100B	16.435	5.181	88.952	1.00	17.58	H	C
ATOM	2471	CD1	PHE	H	100B	16.614	5.011	90.323	1.00	12.85	H	C
ATOM	2472	CD2	PHE	H	100B	16.074	4.069	88.177	1.00	13.17	H	C
ATOM	2473	CE1	PHE	H	100B	16.444	3.764	90.923	1.00	13.91	H	C
ATOM	2474	CE2	PHE	H	100B	15.903	2.799	88.792	1.00	12.44	H	C
ATOM	2475	CZ	PHE	H	100B	16.083	2.656	90.155	1.00	9.26	H	C
ATOM	2476	N	ALA	H	101	18.098	8.123	85.364	1.00	20.24	H	N
ATOM	2477	CA	ALA	H	101	18.375	9.418	84.778	1.00	16.38	H	C
ATOM	2478	C	ALA	H	101	17.175	10.278	84.391	1.00	17.03	H	C
ATOM	2479	O	ALA	H	101	17.295	11.489	84.348	1.00	21.31	H	O
ATOM	2480	CB	ALA	H	101	19.295	9.264	83.594	1.00	13.65	H	C
ATOM	2481	N	TYR	H	102	16.043	9.647	84.130	1.00	18.14	H	N
ATOM	2482	CA	TYR	H	102	14.816	10.361	83.745	1.00	17.04	H	C
ATOM	2483	C	TYR	H	102	13.645	9.693	84.420	1.00	17.35	H	C
ATOM	2484	O	TYR	H	102	13.572	8.471	84.472	1.00	14.92	H	O
ATOM	2485	CB	TYR	H	102	14.593	10.296	82.235	1.00	17.95	H	C
ATOM	2486	CG	TYR	H	102	15.585	11.140	81.523	1.00	20.25	H	C
ATOM	2487	CD1	TYR	H	102	16.757	10.591	81.028	1.00	20.01	H	C
ATOM	2488	CD2	TYR	H	102	15.402	12.513	81.456	1.00	20.00	H	C
ATOM	2489	CE1	TYR	H	102	17.747	11.421	80.471	1.00	16.24	H	C
ATOM	2490	CE2	TYR	H	102	16.372	13.343	80.911	1.00	15.52	H	C
ATOM	2491	CZ	TYR	H	102	17.537	12.782	80.419	1.00	17.92	H	C
ATOM	2492	OH	TYR	H	102	18.475	13.602	79.832	1.00	32.99	H	O
ATOM	2493	N	TRP	H	103	12.728	10.512	84.921	1.00	17.03	H	N
ATOM	2494	CA	TRP	H	103	11.564	10.003	85.632	1.00	17.00	H	C
ATOM	2495	C	TRP	H	103	10.299	10.565	85.009	1.00	15.31	H	C
ATOM	2496	O	TRP	H	103	10.306	11.676	84.472	1.00	18.72	H	O
ATOM	2497	CB	TRP	H	103	11.595	10.459	87.110	1.00	18.58	H	C

ATOM	2498	CG	TRP	H	103	12.760	9.947	87.947	1.00	22.42	H	C
ATOM	2499	CD1	TRP	H	103	14.090	10.198	87.721	1.00	10.35	H	C
ATOM	2500	CD2	TRP	H	103	12.685	9.164	89.135	1.00	13.24	H	C
ATOM	2501	NE1	TRP	H	103	14.852	9.613	88.706	1.00	24.99	H	N
ATOM	2502	CE2	TRP	H	103	14.024	8.968	89.590	1.00	11.38	H	C
ATOM	2503	CE3	TRP	H	103	11.623	8.607	89.878	1.00	13.12	H	C
ATOM	2504	CZ2	TRP	H	103	14.328	8.251	90.710	1.00	9.14	H	C
ATOM	2505	CZ3	TRP	H	103	11.925	7.888	91.015	1.00	13.82	H	C
ATOM	2506	CH2	TRP	H	103	13.281	7.709	91.426	1.00	13.97	H	C
ATOM	2507	N	GLY	H	104	9.216	9.792	85.071	1.00	16.98	H	N
ATOM	2508	CA	GLY	H	104	7.947	10.303	84.542	1.00	20.03	H	C
ATOM	2509	C	GLY	H	104	7.258	11.169	85.604	1.00	22.00	H	C
ATOM	2510	O	GLY	H	104	7.886	11.535	86.606	1.00	22.60	H	O
ATOM	2511	N	ALA	H	105	5.979	11.508	85.400	1.00	24.52	H	N
ATOM	2512	CA	ALA	H	105	5.284	12.344	86.356	1.00	23.39	H	C
ATOM	2513	C	ALA	H	105	4.649	11.524	87.468	1.00	21.52	H	C
ATOM	2514	O	ALA	H	105	4.218	12.078	88.465	1.00	24.75	H	O
ATOM	2515	CB	ALA	H	105	4.185	13.220	85.606	1.00	24.94	H	C
ATOM	2516	N	GLY	H	106	4.600	10.191	87.314	1.00	21.97	H	N
ATOM	2517	CA	GLY	H	106	4.128	9.196	88.266	1.00	23.66	H	C
ATOM	2518	C	GLY	H	106	2.610	9.025	88.183	1.00	23.03	H	C
ATOM	2519	O	GLY	H	106	1.872	9.910	87.772	1.00	24.09	H	O
ATOM	2520	N	THR	H	107	2.160	7.813	88.554	1.00	22.71	H	N
ATOM	2521	CA	THR	H	107	0.727	7.542	88.566	1.00	21.91	H	C
ATOM	2522	C	THR	H	107	0.306	6.924	89.901	1.00	21.11	H	C
ATOM	2523	O	THR	H	107	0.862	5.939	90.367	1.00	18.20	H	O
ATOM	2524	CB	THR	H	107	0.421	6.574	87.423	1.00	27.94	H	C
ATOM	2525	OG1	THR	H	107	-0.995	6.432	87.297	1.00	33.93	H	O
ATOM	2526	CG2	THR	H	107	1.030	5.202	87.728	1.00	17.61	H	C
ATOM	2527	N	LEU	H	108	-0.687	7.564	90.541	1.00	24.58	H	N
ATOM	2528	CA	LEU	H	108	-1.066	7.139	91.886	1.00	25.53	H	C
ATOM	2529	C	LEU	H	108	-1.862	5.831	91.887	1.00	21.65	H	C
ATOM	2530	O	LEU	H	108	-2.801	5.630	91.129	1.00	23.64	H	O
ATOM	2531	CB	LEU	H	108	-1.900	8.252	92.519	1.00	30.90	H	C
ATOM	2532	CG	LEU	H	108	-1.075	9.150	93.442	1.00	20.00	H	C
ATOM	2533	CD1	LEU	H	108	-1.415	10.631	93.266	1.00	20.00	H	C
ATOM	2534	CD2	LEU	H	108	-1.299	8.835	94.921	1.00	20.00	H	C
ATOM	2535	N	VAL	H	109	-1.423	4.903	92.760	1.00	22.28	H	N
ATOM	2536	CA	VAL	H	109	-2.177	3.669	92.946	1.00	22.76	H	C
ATOM	2537	C	VAL	H	109	-2.662	3.531	94.390	1.00	25.97	H	C
ATOM	2538	O	VAL	H	109	-1.892	3.509	95.340	1.00	22.42	H	O
ATOM	2539	CB	VAL	H	109	-1.276	2.487	92.593	1.00	22.61	H	C
ATOM	2540	CG1	VAL	H	109	-1.965	1.180	92.982	1.00	12.42	H	C
ATOM	2541	CG2	VAL	H	109	-0.991	2.473	91.104	1.00	15.97	H	C
ATOM	2542	N	ALA	H	110	-3.995	3.473	94.541	1.00	27.50	H	N
ATOM	2543	CA	ALA	H	110	-4.549	3.344	95.883	1.00	34.16	H	C
ATOM	2544	C	ALA	H	110	-5.218	1.984	96.096	1.00	30.55	H	C
ATOM	2545	O	ALA	H	110	-6.145	1.604	95.393	1.00	28.32	H	O
ATOM	2546	CB	ALA	H	110	-5.561	4.471	96.092	1.00	34.67	H	C
ATOM	2547	N	VAL	H	111	-4.788	1.231	97.090	1.00	29.84	H	N
ATOM	2548	CA	VAL	H	111	-5.337	-0.096	97.338	1.00	31.80	H	C
ATOM	2549	C	VAL	H	111	-6.192	0.068	98.562	1.00	31.94	H	C
ATOM	2550	O	VAL	H	111	-5.686	0.211	99.660	1.00	31.65	H	O
ATOM	2551	CB	VAL	H	111	-4.207	-1.118	97.630	1.00	34.06	H	C
ATOM	2552	CG1	VAL	H	111	-4.820	-2.488	97.985	1.00	31.41	H	C
ATOM	2553	CG2	VAL	H	111	-3.279	-1.246	96.368	1.00	27.16	H	C
ATOM	2554	N	SER	H	112	-7.506	0.047	98.345	1.00	33.05	H	N
ATOM	2555	CA	SER	H	112	-8.423	0.257	99.431	1.00	33.70	H	C
ATOM	2556	C	SER	H	112	-9.780	-0.337	99.112	1.00	36.79	H	C
ATOM	2557	O	SER	H	112	-10.182	-0.482	97.946	1.00	37.17	H	O
ATOM	2558	CB	SER	H	112	-8.603	1.761	99.645	1.00	32.72	H	C

	ATOM	2559	OG	SER	H	112	-9.559	2.071	100.646	1.00	26.84	H O
	ATOM	2560	N	ALA	H	113	-10.487	-0.646	100.169	1.00	38.98	H N
	ATOM	2561	CA	ALA	H	113	-11.824	-1.173	100.013	1.00	41.14	H C
	ATOM	2562	C	ALA	H	113	-12.805	0.001	99.959	1.00	38.87	H C
5	ATOM	2563	O	ALA	H	113	-13.983	-0.202	99.665	1.00	42.01	H O
	ATOM	2564	CB	ALA	H	113	-12.160	-2.055	101.202	1.00	43.56	H C
	ATOM	2565	N	ALA	H	114	-12.325	1.216	100.256	1.00	35.04	H N
	ATOM	2566	CA	ALA	H	114	-13.182	2.403	100.240	1.00	32.22	H C
	ATOM	2567	C	ALA	H	114	-13.707	2.673	98.847	1.00	34.27	H C
10	ATOM	2568	O	ALA	H	114	-13.135	2.218	97.839	1.00	36.90	H O
	ATOM	2569	CB	ALA	H	114	-12.458	3.611	100.763	1.00	27.25	H C
	ATOM	2570	N	ALA	H	115	-14.798	3.431	98.796	1.00	34.74	H N
	ATOM	2571	CA	ALA	H	115	-15.460	3.725	97.537	1.00	37.80	H C
	ATOM	2572	C	ALA	H	115	-15.153	5.077	96.946	1.00	35.62	H C
15	ATOM	2573	O	ALA	H	115	-15.027	6.068	97.652	1.00	34.30	H O
	ATOM	2574	CB	ALA	H	115	-16.987	3.584	97.707	1.00	39.57	H C
	ATOM	2575	N	THR	H	116	-15.090	5.101	95.622	1.00	32.15	H N
	ATOM	2576	CA	THR	H	116	-14.834	6.322	94.882	1.00	32.34	H C
	ATOM	2577	C	THR	H	116	-15.916	7.317	95.224	1.00	32.92	H C
20	ATOM	2578	O	THR	H	116	-17.121	6.985	95.198	1.00	37.07	H O
	ATOM	2579	CB	THR	H	116	-14.893	6.044	93.385	1.00	32.96	H C
	ATOM	2580	OG1	THR	H	116	-13.832	5.138	93.046	1.00	41.93	H O
	ATOM	2581	CG2	THR	H	116	-14.752	7.314	92.582	1.00	33.48	H C
	ATOM	2582	N	THR	H	117	-15.514	8.528	95.594	1.00	36.22	H N
25	ATOM	2583	CA	THR	H	117	-16.507	9.569	95.901	1.00	34.76	H C
	ATOM	2584	C	THR	H	117	-16.052	10.810	95.193	1.00	32.82	H C
	ATOM	2585	O	THR	H	117	-14.886	11.181	95.309	1.00	32.94	H O
	ATOM	2586	CB	THR	H	117	-16.597	9.867	97.385	1.00	33.77	H C
	ATOM	2587	OG1	THR	H	117	-16.771	8.640	98.098	1.00	39.01	H O
30	ATOM	2588	CG2	THR	H	117	-17.789	10.765	97.652	1.00	34.01	H C
	ATOM	2589	N	PRO	H	118	-16.949	11.457	94.426	1.00	33.70	H N
	ATOM	2590	CA	PRO	H	118	-16.564	12.668	93.702	1.00	35.93	H C
	ATOM	2591	C	PRO	H	118	-16.494	13.861	94.655	1.00	35.72	H C
	ATOM	2592	O	PRO	H	118	-17.221	13.927	95.623	1.00	40.13	H O
35	ATOM	2593	CB	PRO	H	118	-17.684	12.821	92.664	1.00	33.69	H C
	ATOM	2594	CG	PRO	H	118	-18.908	12.369	93.472	1.00	34.15	H C
	ATOM	2595	CD	PRO	H	118	-18.372	11.132	94.206	1.00	34.57	H C
	ATOM	2596	N	PRO	H	119	-15.633	14.837	94.362	1.00	35.03	H N
	ATOM	2597	CA	PRO	H	119	-15.571	15.983	95.273	1.00	33.26	H C
40	ATOM	2598	C	PRO	H	119	-16.672	16.985	95.043	1.00	31.25	H C
	ATOM	2599	O	PRO	H	119	-17.268	17.024	93.972	1.00	33.26	H O
	ATOM	2600	CB	PRO	H	119	-14.241	16.620	94.924	1.00	33.76	H C
	ATOM	2601	CG	PRO	H	119	-14.176	16.379	93.413	1.00	31.63	H C
	ATOM	2602	CD	PRO	H	119	-14.588	14.917	93.327	1.00	35.32	H C
45	ATOM	2603	N	SER	H	120	-16.914	17.818	96.050	1.00	31.16	H N
	ATOM	2604	CA	SER	H	120	-17.822	18.941	95.888	1.00	28.95	H C
	ATOM	2605	C	SER	H	120	-16.869	20.135	95.805	1.00	26.08	H C
	ATOM	2606	O	SER	H	120	-16.006	20.275	96.642	1.00	28.02	H O
	ATOM	2607	CB	SER	H	120	-18.763	19.081	97.078	1.00	29.74	H C
50	ATOM	2608	OG	SER	H	120	-19.749	18.049	97.009	1.00	35.85	H O
	ATOM	2609	N	VAL	H	121	-17.007	20.969	94.776	1.00	22.55	H N
	ATOM	2610	CA	VAL	H	121	-16.132	22.120	94.603	1.00	20.71	H C
	ATOM	2611	C	VAL	H	121	-16.877	23.374	95.006	1.00	22.27	H C
	ATOM	2612	O	VAL	H	121	-17.939	23.654	94.481	1.00	27.65	H O
55	ATOM	2613	CB	VAL	H	121	-15.651	22.195	93.124	1.00	17.00	H C
	ATOM	2614	CG1	VAL	H	121	-14.748	23.381	92.927	1.00	15.83	H C
	ATOM	2615	CG2	VAL	H	121	-14.936	20.859	92.738	1.00	16.73	H C
	ATOM	2616	N	TYR	H	122	-16.349	24.129	95.962	1.00	25.41	H N
	ATOM	2617	CA	TYR	H	122	-17.044	25.341	96.426	1.00	24.88	H C
60	ATOM	2618	C	TYR	H	122	-16.203	26.561	96.279	1.00	24.68	H C
	ATOM	2619	O	TYR	H	122	-15.032	26.548	96.577	1.00	24.38	H O

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ATOM   2620  CB  TYR H 122     -17.433  25.221  97.904  1.00 24.18      H    C
ATOM   2621  CG  TYR H 122     -18.344  24.069  98.199  1.00 29.23      H    C
ATOM   2622  CD1 TYR H 122     -19.571  23.951  97.546  1.00 25.06      H    C
ATOM   2623  CD2 TYR H 122     -18.003  23.103  99.135  1.00 25.35      H    C
ATOM   2624  CE1 TYR H 122     -20.425  22.898  97.825  1.00 21.10      H    C
ATOM   2625  CE2 TYR H 122     -18.861  22.040  99.426  1.00 21.80      H    C
ATOM   2626  CZ  TYR H 122     -20.059  21.950  98.767  1.00 26.10      H    C
ATOM   2627  OH  TYR H 122     -20.912  20.895  99.028  1.00 34.59      H    O
ATOM   2628  N   PRO H 123     -16.812  27.668  95.855  1.00 26.07      H    N
ATOM   2629  CA  PRO H 123     -16.066  28.906  95.685  1.00 22.92      H    C
ATOM   2630  C   PRO H 123     -15.828  29.629  97.011  1.00 25.12      H    C
ATOM   2631  O   PRO H 123     -16.675  29.601  97.899  1.00 29.59      H    O
ATOM   2632  CB  PRO H 123     -16.971  29.723  94.767  1.00 26.97      H    C
ATOM   2633  CG  PRO H 123     -18.354  29.367  95.265  1.00 22.97      H    C
ATOM   2634  CD  PRO H 123     -18.245  27.839  95.513  1.00 26.49      H    C
ATOM   2635  N   LEU H 124     -14.671  30.279  97.127  1.00 26.07      H    N
ATOM   2636  CA  LEU H 124     -14.326  31.043  98.325  1.00 24.46      H    C
ATOM   2637  C   LEU H 124     -14.143  32.505  97.922  1.00 28.44      H    C
ATOM   2638  O   LEU H 124     -13.148  32.883  97.270  1.00 28.59      H    O
ATOM   2639  CB  LEU H 124     -13.026  30.503  98.959  1.00 24.13      H    C
ATOM   2640  CG  LEU H 124     -13.138  29.021  99.352  1.00 25.03      H    C
ATOM   2641  CD1 LEU H 124     -11.734  28.606  99.873  1.00 18.82      H    C
ATOM   2642  CD2 LEU H 124     -14.254  28.781 100.416  1.00 12.78      H    C
ATOM   2643  N   ALA H 125     -15.139  33.328  98.272  1.00 33.65      H    N
ATOM   2644  CA  ALA H 125     -15.087  34.755  97.956  1.00 34.90      H    C
ATOM   2645  C   ALA H 125     -15.210  35.537  99.281  1.00 37.39      H    C
ATOM   2646  O   ALA H 125     -15.840  35.057 100.198  1.00 35.63      H    O
ATOM   2647  CB  ALA H 125     -16.260  35.102  97.030  1.00 33.48      H    C
ATOM   2648  N   PRO H 126     -14.621  36.744  99.375  1.00 44.34      H    N
ATOM   2649  CA  PRO H 126     -14.664  37.596 100.585  1.00 48.17      H    C
ATOM   2650  C   PRO H 126     -16.007  38.205 100.986  1.00 53.43      H    C
ATOM   2651  O   PRO H 126     -16.816  38.560 100.135  1.00 53.07      H    O
ATOM   2652  CB  PRO H 126     -13.650  38.697 100.281  1.00 48.47      H    C
ATOM   2653  CG  PRO H 126     -13.593  38.733  98.735  1.00 46.77      H    C
ATOM   2654  CD  PRO H 126     -13.652  37.277  98.392  1.00 47.77      H    C
ATOM   2655  N   GLY H 127     -16.210  38.352 102.299  1.00 58.90      H    N
ATOM   2656  CA  GLY H 127     -17.427  38.964 102.811  1.00 62.44      H    C
ATOM   2657  C   GLY H 127     -17.313  40.472 102.691  1.00 65.56      H    C
ATOM   2658  O   GLY H 127     -16.226  40.950 102.314  1.00 67.61      H    O
ATOM   2659  OXT GLY H 127     -18.294  41.197 102.962  1.00 69.07      H    O
ATOM   2660  N   ASN H 133      -7.670  46.717  99.327  1.00 61.24      H    N
ATOM   2661  CA  ASN H 133      -6.184  46.774  99.368  1.00 58.83      H    C
ATOM   2662  C   ASN H 133      -5.627  46.469  98.005  1.00 54.12      H    C
ATOM   2663  O   ASN H 133      -6.373  46.230  97.068  1.00 54.20      H    O
ATOM   2664  CB  ASN H 133      -5.588  45.802 100.384  1.00 61.20      H    C
ATOM   2665  CG  ASN H 133      -6.609  44.889 101.017  1.00 68.39      H    C
ATOM   2666  OD1 ASN H 133      -6.246  44.026 101.820  1.00 78.27      H    O
ATOM   2667  ND2 ASN H 133      -7.882  45.064 100.680  1.00 80.34      H    N
ATOM   2668  N   SER H 134      -4.312  46.486  97.891  1.00 46.58      H    N
ATOM   2669  CA  SER H 134      -3.669  46.251  96.611  1.00 43.64      H    C
ATOM   2670  C   SER H 134      -4.089  44.941  95.952  1.00 40.86      H    C
ATOM   2671  O   SER H 134      -4.406  44.914  94.760  1.00 38.97      H    O
ATOM   2672  CB  SER H 134      -2.146  46.294  96.819  1.00 48.42      H    C
ATOM   2673  OG  SER H 134      -1.411  45.905  95.669  1.00 51.69      H    O
ATOM   2674  N   MET H 135      -4.095  43.852  96.725  1.00 40.34      H    N
ATOM   2675  CA  MET H 135      -4.446  42.512  96.186  1.00 34.57      H    C
ATOM   2676  C   MET H 135      -5.703  41.912  96.823  1.00 32.44      H    C
ATOM   2677  O   MET H 135      -6.094  42.315  97.901  1.00 30.15      H    O
ATOM   2678  CB  MET H 135      -3.300  41.536  96.461  1.00 35.25      H    C
ATOM   2679  CG  MET H 135      -1.919  41.970  95.966  1.00 37.85      H    C
ATOM   2680  SD  MET H 135      -1.916  42.012  94.167  1.00 48.89      H    S
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ATOM	2681	CE	MET	H	135	-1.602	40.237	93.761	1.00	45.32	H	C
ATOM	2682	N	VAL	H	136	-6.345	40.956	96.158	1.00	29.30	H	N
ATOM	2683	CA	VAL	H	136	-7.479	40.275	96.789	1.00	29.61	H	C
ATOM	2684	C	VAL	H	136	-7.179	38.760	96.714	1.00	27.62	H	C
ATOM	2685	O	VAL	H	136	-6.608	38.289	95.727	1.00	21.53	H	O
ATOM	2686	CB	VAL	H	136	-8.853	40.549	96.112	1.00	28.96	H	C
ATOM	2687	CG1	VAL	H	136	-8.827	40.116	94.635	1.00	30.30	H	C
ATOM	2688	CG2	VAL	H	136	-9.967	39.759	96.854	1.00	19.18	H	C
ATOM	2689	N	THR	H	137	-7.508	38.028	97.776	1.00	26.58	H	N
ATOM	2690	CA	THR	H	137	-7.299	36.573	97.756	1.00	27.60	H	C
ATOM	2691	C	THR	H	137	-8.644	35.855	97.592	1.00	29.30	H	C
ATOM	2692	O	THR	H	137	-9.628	36.183	98.269	1.00	28.40	H	O
ATOM	2693	CB	THR	H	137	-6.612	36.148	99.044	1.00	26.81	H	C
ATOM	2694	OG1	THR	H	137	-5.301	36.741	99.081	1.00	29.61	H	O
ATOM	2695	CG2	THR	H	137	-6.425	34.610	99.115	1.00	27.58	H	C
ATOM	2696	N	LEU	H	138	-8.696	34.910	96.665	1.00	28.45	H	N
ATOM	2697	CA	LEU	H	138	-9.875	34.117	96.390	1.00	23.40	H	C
ATOM	2698	C	LEU	H	138	-9.475	32.658	96.580	1.00	23.57	H	C
ATOM	2699	O	LEU	H	138	-8.305	32.326	96.795	1.00	25.01	H	O
ATOM	2700	CB	LEU	H	138	-10.312	34.265	94.935	1.00	23.55	H	C
ATOM	2701	CG	LEU	H	138	-10.498	35.735	94.482	1.00	30.56	H	C
ATOM	2702	CD1	LEU	H	138	-10.849	35.826	92.950	1.00	19.69	H	C
ATOM	2703	CD2	LEU	H	138	-11.628	36.350	95.312	1.00	35.20	H	C
ATOM	2704	N	GLY	H	139	-10.444	31.776	96.475	1.00	19.26	H	N
ATOM	2705	CA	GLY	H	139	-10.060	30.370	96.580	1.00	21.12	H	C
ATOM	2706	C	GLY	H	139	-11.156	29.404	96.169	1.00	22.32	H	C
ATOM	2707	O	GLY	H	139	-12.255	29.823	95.796	1.00	19.43	H	O
ATOM	2708	N	CYS	H	140	-10.847	28.117	96.262	1.00	19.11	H	N
ATOM	2709	CA	CYS	H	140	-11.784	27.040	95.972	1.00	23.52	H	C
ATOM	2710	C	CYS	H	140	-11.571	25.947	97.001	1.00	23.22	H	C
ATOM	2711	O	CYS	H	140	-10.418	25.607	97.321	1.00	22.91	H	O
ATOM	2712	CB	CYS	H	140	-11.557	26.447	94.562	1.00	25.73	H	C
ATOM	2713	SG	CYS	H	140	-12.544	27.321	93.297	1.00	44.80	H	S
ATOM	2714	N	LEU	H	141	-12.676	25.397	97.521	1.00	21.53	H	N
ATOM	2715	CA	LEU	H	141	-12.622	24.289	98.512	1.00	20.48	H	C
ATOM	2716	C	LEU	H	141	-13.066	23.030	97.777	1.00	18.89	H	C
ATOM	2717	O	LEU	H	141	-14.169	23.004	97.193	1.00	22.71	H	O
ATOM	2718	CB	LEU	H	141	-13.598	24.560	99.692	1.00	17.17	H	C
ATOM	2719	CG	LEU	H	141	-13.729	23.490	100.794	1.00	25.38	H	C
ATOM	2720	CD1	LEU	H	141	-12.371	23.264	101.553	1.00	25.22	H	C
ATOM	2721	CD2	LEU	H	141	-14.797	23.935	101.790	1.00	21.03	H	C
ATOM	2722	N	VAL	H	142	-12.205	22.007	97.771	1.00	15.03	H	N
ATOM	2723	CA	VAL	H	142	-12.486	20.744	97.075	1.00	15.13	H	C
ATOM	2724	C	VAL	H	142	-12.671	19.721	98.187	1.00	18.32	H	C
ATOM	2725	O	VAL	H	142	-11.708	19.140	98.693	1.00	19.22	H	O
ATOM	2726	CB	VAL	H	142	-11.293	20.370	96.194	1.00	16.12	H	C
ATOM	2727	CG1	VAL	H	142	-11.611	19.084	95.365	1.00	16.05	H	C
ATOM	2728	CG2	VAL	H	142	-11.007	21.534	95.233	1.00	16.52	H	C
ATOM	2729	N	LYS	H	143	-13.938	19.463	98.512	1.00	19.22	H	N
ATOM	2730	CA	LYS	H	143	-14.254	18.650	99.664	1.00	23.50	H	C
ATOM	2731	C	LYS	H	143	-14.891	17.303	99.486	1.00	23.95	H	C
ATOM	2732	O	LYS	H	143	-15.787	17.124	98.656	1.00	28.68	H	O
ATOM	2733	CB	LYS	H	143	-15.156	19.497	100.574	1.00	21.98	H	C
ATOM	2734	CG	LYS	H	143	-15.507	18.917	101.941	1.00	25.06	H	C
ATOM	2735	CD	LYS	H	143	-16.282	19.991	102.758	1.00	28.37	H	C
ATOM	2736	CE	LYS	H	143	-16.877	19.396	104.058	1.00	28.90	H	C
ATOM	2737	NZ	LYS	H	143	-15.810	18.790	104.927	1.00	44.68	H	N
ATOM	2738	N	GLY	H	144	-14.419	16.381	100.312	1.00	24.19	H	N
ATOM	2739	CA	GLY	H	144	-14.944	15.038	100.379	1.00	26.62	H	C
ATOM	2740	C	GLY	H	144	-14.856	14.128	99.180	1.00	27.65	H	C
ATOM	2741	O	GLY	H	144	-15.897	13.622	98.714	1.00	30.78	H	O

ATOM	2742	N	TYR	H	145	-13.635	13.914	98.690	1.00	26.76	H	N
ATOM	2743	CA	TYR	H	145	-13.398	13.016	97.550	1.00	27.17	H	C
ATOM	2744	C	TYR	H	145	-12.535	11.814	97.920	1.00	29.53	H	C
ATOM	2745	O	TYR	H	145	-11.889	11.802	98.970	1.00	25.98	H	O
ATOM	2746	CB	TYR	H	145	-12.743	13.759	96.378	1.00	24.08	H	C
ATOM	2747	CG	TYR	H	145	-11.357	14.306	96.683	1.00	28.06	H	C
ATOM	2748	CD1	TYR	H	145	-10.204	13.586	96.338	1.00	30.37	H	C
ATOM	2749	CD2	TYR	H	145	-11.196	15.553	97.283	1.00	22.50	H	C
ATOM	2750	CE1	TYR	H	145	-8.897	14.112	96.575	1.00	25.17	H	C
ATOM	2751	CE2	TYR	H	145	-9.926	16.061	97.539	1.00	20.82	H	C
ATOM	2752	CZ	TYR	H	145	-8.793	15.356	97.184	1.00	28.20	H	C
ATOM	2753	OH	TYR	H	145	-7.553	15.864	97.461	1.00	17.93	H	O
ATOM	2754	N	PHE	H	146	-12.555	10.780	97.056	1.00	31.05	H	N
ATOM	2755	CA	PHE	H	146	-11.737	9.586	97.264	1.00	31.43	H	C
ATOM	2756	C	PHE	H	146	-11.753	8.812	95.960	1.00	32.08	H	C
ATOM	2757	O	PHE	H	146	-12.805	8.697	95.328	1.00	36.16	H	O
ATOM	2758	CB	PHE	H	146	-12.306	8.690	98.359	1.00	29.02	H	C
ATOM	2759	CG	PHE	H	146	-11.379	7.556	98.767	1.00	27.00	H	C
ATOM	2760	CD1	PHE	H	146	-10.421	7.740	99.757	1.00	22.36	H	C
ATOM	2761	CD2	PHE	H	146	-11.440	6.334	98.121	1.00	27.68	H	C
ATOM	2762	CE1	PHE	H	146	-9.550	6.755	100.091	1.00	21.95	H	C
ATOM	2763	CE2	PHE	H	146	-10.541	5.323	98.464	1.00	27.29	H	C
ATOM	2764	CZ	PHE	H	146	-9.600	5.530	99.443	1.00	22.36	H	C
ATOM	2765	N	PRO	H	147	-10.591	8.321	95.527	1.00	27.57	H	N
ATOM	2766	CA	PRO	H	147	-9.315	8.477	96.209	1.00	26.64	H	C
ATOM	2767	C	PRO	H	147	-8.572	9.704	95.669	1.00	26.21	H	C
ATOM	2768	O	PRO	H	147	-9.112	10.443	94.866	1.00	25.89	H	O
ATOM	2769	CB	PRO	H	147	-8.582	7.214	95.806	1.00	23.36	H	C
ATOM	2770	CG	PRO	H	147	-8.879	7.172	94.377	1.00	25.94	H	C
ATOM	2771	CD	PRO	H	147	-10.416	7.467	94.332	1.00	26.74	H	C
ATOM	2772	N	GLU	H	148	-7.335	9.901	96.128	1.00	26.28	H	N
ATOM	2773	CA	GLU	H	148	-6.490	10.963	95.562	1.00	29.14	H	C
ATOM	2774	C	GLU	H	148	-6.174	10.431	94.162	1.00	28.26	H	C
ATOM	2775	O	GLU	H	148	-6.178	9.219	93.951	1.00	32.81	H	O
ATOM	2776	CB	GLU	H	148	-5.206	11.084	96.344	1.00	27.60	H	C
ATOM	2777	CG	GLU	H	148	-5.450	11.628	97.701	1.00	28.15	H	C
ATOM	2778	CD	GLU	H	148	-4.209	12.176	98.294	1.00	46.58	H	C
ATOM	2779	OE1	GLU	H	148	-3.378	11.332	98.735	1.00	56.93	H	O
ATOM	2780	OE2	GLU	H	148	-4.080	13.441	98.294	1.00	37.38	H	O
ATOM	2781	N	PRO	H	149	-5.806	11.313	93.216	1.00	28.64	H	N
ATOM	2782	CA	PRO	H	149	-5.671	12.760	93.426	1.00	26.39	H	C
ATOM	2783	C	PRO	H	149	-6.724	13.569	92.707	1.00	24.55	H	C
ATOM	2784	O	PRO	H	149	-7.597	13.026	92.035	1.00	23.88	H	O
ATOM	2785	CB	PRO	H	149	-4.314	13.034	92.809	1.00	28.35	H	C
ATOM	2786	CG	PRO	H	149	-4.455	12.232	91.462	1.00	20.74	H	C
ATOM	2787	CD	PRO	H	149	-5.192	10.913	91.932	1.00	28.56	H	C
ATOM	2788	N	VAL	H	150	-6.627	14.890	92.868	1.00	23.29	H	N
ATOM	2789	CA	VAL	H	150	-7.448	15.809	92.113	1.00	19.21	H	C
ATOM	2790	C	VAL	H	150	-6.429	16.769	91.532	1.00	24.23	H	C
ATOM	2791	O	VAL	H	150	-5.306	16.897	92.035	1.00	26.42	H	O
ATOM	2792	CB	VAL	H	150	-8.414	16.651	92.944	1.00	18.09	H	C
ATOM	2793	CG1	VAL	H	150	-9.577	15.751	93.478	1.00	17.95	H	C
ATOM	2794	CG2	VAL	H	150	-7.665	17.369	94.096	1.00	10.71	H	C
ATOM	2795	N	THR	H	151	-6.811	17.441	90.471	1.00	24.63	H	N
ATOM	2796	CA	THR	H	151	-5.939	18.436	89.935	1.00	30.43	H	C
ATOM	2797	C	THR	H	151	-6.700	19.742	90.049	1.00	28.78	H	C
ATOM	2798	O	THR	H	151	-7.915	19.765	89.869	1.00	26.29	H	O
ATOM	2799	CB	THR	H	151	-5.597	18.153	88.481	1.00	31.70	H	C
ATOM	2800	OG1	THR	H	151	-6.802	18.052	87.694	1.00	43.95	H	O
ATOM	2801	CG2	THR	H	151	-4.824	16.859	88.402	1.00	36.27	H	C
ATOM	2802	N	VAL	H	152	-5.980	20.808	90.364	1.00	26.62	H	N

	ATOM	2803	CA	VAL	H	152	-6.578	22.127	90.436	1.00	25.23	H C
	ATOM	2804	C	VAL	H	152	-5.755	23.161	89.630	1.00	23.01	H C
	ATOM	2805	O	VAL	H	152	-4.544	23.228	89.792	1.00	27.04	H O
	ATOM	2806	CB	VAL	H	152	-6.625	22.623	91.897	1.00	25.96	H C
5	ATOM	2807	CG1	VAL	H	152	-7.340	24.014	91.930	1.00	22.70	H C
	ATOM	2808	CG2	VAL	H	152	-7.372	21.609	92.784	1.00	25.04	H C
	ATOM	2809	N	THR	H	153	-6.385	23.915	88.736	1.00	20.60	H N
	ATOM	2810	CA	THR	H	153	-5.667	24.996	88.048	1.00	23.67	H C
	ATOM	2811	C	THR	H	153	-6.627	26.211	88.132	1.00	24.11	H C
10	ATOM	2812	O	THR	H	153	-7.765	26.061	88.565	1.00	25.71	H O
	ATOM	2813	CB	THR	H	153	-5.395	24.659	86.551	1.00	24.28	H C
	ATOM	2814	OG1	THR	H	153	-6.632	24.412	85.889	1.00	25.91	H O
	ATOM	2815	CG2	THR	H	153	-4.566	23.435	86.450	1.00	19.31	H C
	ATOM	2816	N	TRP	H	154	-6.150	27.393	87.752	1.00	28.43	H N
15	ATOM	2817	CA	TRP	H	154	-6.961	28.600	87.754	1.00	32.03	H C
	ATOM	2818	C	TRP	H	154	-6.981	29.195	86.342	1.00	30.20	H C
	ATOM	2819	O	TRP	H	154	-5.952	29.288	85.689	1.00	29.01	H O
	ATOM	2820	CB	TRP	H	154	-6.389	29.598	88.748	1.00	33.71	H C
	ATOM	2821	CG	TRP	H	154	-6.641	29.175	90.185	1.00	33.79	H C
20	ATOM	2822	CD1	TRP	H	154	-5.828	28.406	90.998	1.00	25.73	H C
	ATOM	2823	CD2	TRP	H	154	-7.800	29.499	90.957	1.00	32.12	H C
	ATOM	2824	NE1	TRP	H	154	-6.430	28.241	92.244	1.00	21.18	H N
	ATOM	2825	CE2	TRP	H	154	-7.638	28.900	92.239	1.00	27.40	H C
	ATOM	2826	CE3	TRP	H	154	-8.964	30.231	90.693	1.00	25.24	H C
25	ATOM	2827	CZ2	TRP	H	154	-8.608	29.024	93.254	1.00	29.44	H C
	ATOM	2828	CZ3	TRP	H	154	-9.929	30.352	91.705	1.00	30.04	H C
	ATOM	2829	CH2	TRP	H	154	-9.737	29.748	92.972	1.00	24.77	H C
	ATOM	2830	N	ASN	H	155	-8.144	29.560	85.867	1.00	30.30	H N
	ATOM	2831	CA	ASN	H	155	-8.219	30.047	84.479	1.00	37.67	H C
30	ATOM	2832	C	ASN	H	155	-7.488	29.181	83.443	1.00	37.85	H C
	ATOM	2833	O	ASN	H	155	-6.758	29.686	82.593	1.00	37.12	H O
	ATOM	2834	CB	ASN	H	155	-7.740	31.496	84.413	1.00	34.75	H C
	ATOM	2835	CG	ASN	H	155	-8.733	32.415	85.030	1.00	35.49	H C
	ATOM	2836	OD1	ASN	H	155	-9.845	31.980	85.382	1.00	44.08	H O
35	ATOM	2837	ND2	ASN	H	155	-8.376	33.683	85.170	1.00	45.82	H N
	ATOM	2838	N	SER	H	156	-7.712	27.876	83.528	1.00	37.34	H N
	ATOM	2839	CA	SER	H	156	-7.123	26.916	82.612	1.00	36.58	H C
	ATOM	2840	C	SER	H	156	-5.612	26.997	82.592	1.00	36.12	H C
	ATOM	2841	O	SER	H	156	-4.972	26.657	81.592	1.00	38.51	H O
40	ATOM	2842	CB	SER	H	156	-7.672	27.141	81.200	1.00	37.40	H C
	ATOM	2843	OG	SER	H	156	-9.060	26.867	81.135	1.00	37.91	H O
	ATOM	2844	N	GLY	H	157	-5.040	27.435	83.706	1.00	30.77	H N
	ATOM	2845	CA	GLY	H	157	-3.601	27.547	83.803	1.00	26.68	H C
	ATOM	2846	C	GLY	H	157	-3.067	28.929	83.534	1.00	29.62	H C
45	ATOM	2847	O	GLY	H	157	-1.869	29.140	83.698	1.00	27.32	H O
	ATOM	2848	N	SER	H	158	-3.940	29.878	83.157	1.00	31.56	H N
	ATOM	2849	CA	SER	H	158	-3.528	31.255	82.852	1.00	33.96	H C
	ATOM	2850	C	SER	H	158	-3.142	32.019	84.087	1.00	36.34	H C
	ATOM	2851	O	SER	H	158	-2.390	32.981	84.026	1.00	41.32	H O
50	ATOM	2852	CB	SER	H	158	-4.652	32.041	82.153	1.00	32.92	H C
	ATOM	2853	OG	SER	H	158	-4.650	31.782	80.781	1.00	39.53	H O
	ATOM	2854	N	LEU	H	159	-3.668	31.584	85.217	1.00	39.25	H N
	ATOM	2855	CA	LEU	H	159	-3.396	32.230	86.494	1.00	38.76	H C
	ATOM	2856	C	LEU	H	159	-2.548	31.225	87.244	1.00	36.89	H C
55	ATOM	2857	O	LEU	H	159	-3.049	30.197	87.730	1.00	39.64	H O
	ATOM	2858	CB	LEU	H	159	-4.734	32.462	87.186	1.00	41.00	H C
	ATOM	2859	CG	LEU	H	159	-4.879	33.242	88.473	1.00	45.92	H C
	ATOM	2860	CD1	LEU	H	159	-3.662	34.081	88.758	1.00	44.07	H C
	ATOM	2861	CD2	LEU	H	159	-6.162	34.082	88.320	1.00	46.78	H C
60	ATOM	2862	N	SER	H	160	-1.268	31.522	87.329	1.00	35.36	H N
	ATOM	2863	CA	SER	H	160	-0.327	30.620	87.958	1.00	37.84	H C

	ATOM	2864	C	SER	H	160	0.509	31.105	89.144	1.00	34.85	H C
	ATOM	2865	O	SER	H	160	0.707	30.378	90.115	1.00	35.06	H O
	ATOM	2866	CB	SER	H	160	0.607	30.089	86.877	1.00	39.57	H C
	ATOM	2867	OG	SER	H	160	1.004	28.783	87.208	1.00	54.86	H O
5	ATOM	2868	N	SER	H	161	1.037	32.308	89.080	1.00	33.71	H N
	ATOM	2869	CA	SER	H	161	1.863	32.781	90.185	1.00	35.46	H C
	ATOM	2870	C	SER	H	161	0.926	33.209	91.324	1.00	33.85	H C
	ATOM	2871	O	SER	H	161	-0.237	33.538	91.084	1.00	35.17	H O
	ATOM	2872	CB	SER	H	161	2.743	33.966	89.718	1.00	33.22	H C
10	ATOM	2873	OG	SER	H	161	1.944	35.110	89.467	1.00	38.84	H O
	ATOM	2874	N	GLY	H	162	1.410	33.159	92.556	1.00	30.84	H N
	ATOM	2875	CA	GLY	H	162	0.551	33.550	93.666	1.00	33.82	H C
	ATOM	2876	C	GLY	H	162	-0.598	32.579	93.971	1.00	34.76	H C
	ATOM	2877	O	GLY	H	162	-1.590	32.931	94.634	1.00	38.65	H O
15	ATOM	2878	N	VAL	H	163	-0.499	31.357	93.468	1.00	33.18	H N
	ATOM	2879	CA	VAL	H	163	-1.520	30.356	93.748	1.00	27.52	H C
	ATOM	2880	C	VAL	H	163	-0.920	29.483	94.821	1.00	27.53	H C
	ATOM	2881	O	VAL	H	163	0.275	29.223	94.805	1.00	27.13	H O
	ATOM	2882	CB	VAL	H	163	-1.803	29.435	92.508	1.00	28.90	H C
20	ATOM	2883	CG1	VAL	H	163	-2.545	28.168	92.958	1.00	26.60	H C
	ATOM	2884	CG2	VAL	H	163	-2.650	30.208	91.431	1.00	27.66	H C
	ATOM	2885	N	HIS	H	164	-1.746	29.029	95.772	1.00	25.64	H N
	ATOM	2886	CA	HIS	H	164	-1.297	28.109	96.780	1.00	22.44	H C
	ATOM	2887	C	HIS	H	164	-2.280	26.960	96.853	1.00	20.69	H C
25	ATOM	2888	O	HIS	H	164	-3.363	27.117	97.415	1.00	20.78	H O
	ATOM	2889	CB	HIS	H	164	-1.242	28.731	98.162	1.00	19.62	H C
	ATOM	2890	CG	HIS	H	164	-0.075	29.633	98.360	1.00	29.05	H C
	ATOM	2891	ND1	HIS	H	164	1.236	29.205	98.227	1.00	26.92	H N
	ATOM	2892	CD2	HIS	H	164	-0.020	30.951	98.653	1.00	31.28	H C
30	ATOM	2893	CE1	HIS	H	164	2.044	30.236	98.426	1.00	15.96	H C
	ATOM	2894	NE2	HIS	H	164	1.307	31.300	98.684	1.00	26.44	H N
	ATOM	2895	N	THR	H	165	-1.932	25.808	96.287	1.00	19.73	H N
	ATOM	2896	CA	THR	H	165	-2.866	24.680	96.434	1.00	19.46	H C
	ATOM	2897	C	THR	H	165	-2.371	23.869	97.622	1.00	16.26	H C
35	ATOM	2898	O	THR	H	165	-1.277	23.330	97.589	1.00	20.05	H O
	ATOM	2899	CB	THR	H	165	-2.913	23.856	95.113	1.00	18.44	H C
	ATOM	2900	OG1	THR	H	165	-3.554	24.648	94.107	1.00	19.78	H O
	ATOM	2901	CG2	THR	H	165	-3.750	22.575	95.299	1.00	13.68	H C
	ATOM	2902	N	PHE	H	166	-3.181	23.752	98.677	1.00	15.64	H N
40	ATOM	2903	CA	PHE	H	166	-2.747	23.042	99.857	1.00	15.46	H C
	ATOM	2904	C	PHE	H	166	-2.826	21.500	99.769	1.00	15.55	H C
	ATOM	2905	O	PHE	H	166	-3.701	20.936	99.109	1.00	18.73	H O
	ATOM	2906	CB	PHE	H	166	-3.553	23.547	101.085	1.00	12.32	H C
	ATOM	2907	CG	PHE	H	166	-3.345	25.027	101.375	1.00	11.24	H C
45	ATOM	2908	CD1	PHE	H	166	-3.999	25.997	100.633	1.00	11.46	H C
	ATOM	2909	CD2	PHE	H	166	-2.386	25.415	102.291	1.00	7.74	H C
	ATOM	2910	CE1	PHE	H	166	-3.663	27.354	100.804	1.00	7.46	H C
	ATOM	2911	CE2	PHE	H	166	-2.056	26.756	102.470	1.00	17.10	H C
	ATOM	2912	CZ	PHE	H	166	-2.693	27.718	101.721	1.00	18.02	H C
50	ATOM	2913	N	PRO	H	167	-1.914	20.805	100.440	1.00	14.91	H N
	ATOM	2914	CA	PRO	H	167	-1.971	19.325	100.401	1.00	15.32	H C
	ATOM	2915	C	PRO	H	167	-3.327	18.853	100.950	1.00	17.25	H C
	ATOM	2916	O	PRO	H	167	-3.865	19.419	101.913	1.00	17.80	H O
	ATOM	2917	CB	PRO	H	167	-0.854	18.898	101.368	1.00	11.96	H C
55	ATOM	2918	CG	PRO	H	167	0.133	20.030	101.292	1.00	19.53	H C
	ATOM	2919	CD	PRO	H	167	-0.790	21.279	101.282	1.00	17.99	H C
	ATOM	2920	N	ALA	H	168	-3.846	17.779	100.377	1.00	21.70	H N
	ATOM	2921	CA	ALA	H	168	-5.123	17.227	100.818	1.00	21.19	H C
	ATOM	2922	C	ALA	H	168	-4.982	16.625	102.200	1.00	24.10	H C
60	ATOM	2923	O	ALA	H	168	-3.910	16.161	102.574	1.00	23.83	H O
	ATOM	2924	CB	ALA	H	168	-5.584	16.142	99.847	1.00	21.74	H C

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ATOM   2925  N   VAL H 169      -6.066  16.646 102.963  1.00 23.33      H    N
ATOM   2926  CA  VAL H 169      -6.062  16.066 104.288  1.00 25.37      H    C
ATOM   2927  C   VAL H 169      -7.177  15.025 104.330  1.00 28.13      H    C
ATOM   2928  O   VAL H 169      -8.269  15.272 103.881  1.00 27.25      H    O
ATOM   2929  CB  VAL H 169      -6.329  17.083 105.345  1.00 28.37      H    C
ATOM   2930  CG1 VAL H 169      -6.454  16.372 106.715  1.00 29.42      H    C
ATOM   2931  CG2 VAL H 169      -5.155  18.088 105.368  1.00 24.48      H    C
ATOM   2932  N   LEU H 170      -6.868  13.870 104.896  1.00 32.34      H    N
ATOM   2933  CA  LEU H 170      -7.797  12.758 104.952  1.00 32.97      H    C
ATOM   2934  C   LEU H 170      -8.536  12.719 106.248  1.00 35.04      H    C
ATOM   2935  O   LEU H 170      -7.909  12.711 107.305  1.00 35.43      H    O
ATOM   2936  CB  LEU H 170      -7.042  11.438 104.807  1.00 32.88      H    C
ATOM   2937  CG  LEU H 170      -7.913  10.181 104.914  1.00 35.41      H    C
ATOM   2938  CD1 LEU H 170      -8.703  10.023 103.629  1.00 22.56      H    C
ATOM   2939  CD2 LEU H 170      -7.010   8.988 105.199  1.00 27.80      H    C
ATOM   2940  N   ALA H 171      -9.866  12.676 106.155  1.00 37.86      H    N
ATOM   2941  CA  ALA H 171     -10.744  12.570 107.322  1.00 42.55      H    C
ATOM   2942  C   ALA H 171     -11.937  11.631 106.998  1.00 45.59      H    C
ATOM   2943  O   ALA H 171     -12.513  11.685 105.922  1.00 45.22      H    O
ATOM   2944  CB  ALA H 171     -11.254  13.955 107.735  1.00 43.37      H    C
ATOM   2945  N   SER H 172     -12.268  10.749 107.939  1.00 48.68      H    N
ATOM   2946  CA  SER H 172     -13.386   9.836 107.783  1.00 50.22      H    C
ATOM   2947  C   SER H 172     -13.438   9.283 106.381  1.00 50.04      H    C
ATOM   2948  O   SER H 172     -14.468   9.379 105.680  1.00 54.88      H    O
ATOM   2949  CB  SER H 172     -14.693  10.557 108.097  1.00 51.94      H    C
ATOM   2950  OG  SER H 172     -14.605  11.294 109.313  1.00 58.55      H    O
ATOM   2951  N   ALA H 173     -12.316   8.717 105.955  1.00 46.45      H    N
ATOM   2952  CA  ALA H 173     -12.221   8.136 104.638  1.00 44.35      H    C
ATOM   2953  C   ALA H 173     -12.433   9.084 103.459  1.00 40.49      H    C
ATOM   2954  O   ALA H 173     -12.644   8.625 102.354  1.00 41.86      H    O
ATOM   2955  CB  ALA H 173     -13.182   6.946 104.518  1.00 46.98      H    C
ATOM   2956  N   LEU H 174     -12.418  10.398 103.674  1.00 36.41      H    N
ATOM   2957  CA  LEU H 174     -12.548  11.299 102.523  1.00 32.15      H    C
ATOM   2958  C   LEU H 174     -11.479  12.391 102.637  1.00 30.15      H    C
ATOM   2959  O   LEU H 174     -11.151  12.817 103.719  1.00 30.85      H    O
ATOM   2960  CB  LEU H 174     -13.921  12.000 102.465  1.00 32.78      H    C
ATOM   2961  CG  LEU H 174     -15.150  11.060 102.332  1.00 25.26      H    C
ATOM   2962  CD1 LEU H 174     -16.442  11.878 102.384  1.00 12.36      H    C
ATOM   2963  CD2 LEU H 174     -15.089  10.326 101.005  1.00 20.98      H    C
ATOM   2964  N   TYR H 175     -10.999  12.828 101.487  1.00 27.64      H    N
ATOM   2965  CA  TYR H 175      -9.983  13.877 101.391  1.00 27.11      H    C
ATOM   2966  C   TYR H 175     -10.651  15.217 101.148  1.00 25.89      H    C
ATOM   2967  O   TYR H 175     -11.699  15.279 100.499  1.00 22.59      H    O
ATOM   2968  CB  TYR H 175      -9.092  13.601 100.185  1.00 28.71      H    C
ATOM   2969  CG  TYR H 175      -8.129  12.491 100.404  1.00 33.19      H    C
ATOM   2970  CD1 TYR H 175      -6.952  12.698 101.119  1.00 36.50      H    C
ATOM   2971  CD2 TYR H 175      -8.411  11.209  99.935  1.00 30.21      H    C
ATOM   2972  CE1 TYR H 175      -6.065  11.654 101.376  1.00 36.87      H    C
ATOM   2973  CE2 TYR H 175      -7.540  10.161 100.172  1.00 42.67      H    C
ATOM   2974  CZ  TYR H 175      -6.376  10.386 100.895  1.00 46.88      H    C
ATOM   2975  OH  TYR H 175      -5.552   9.325 101.168  1.00 52.45      H    O
ATOM   2976  N   THR H 176     -10.025  16.282 101.641  1.00 24.24      H    N
ATOM   2977  CA  THR H 176     -10.483  17.630 101.373  1.00 24.99      H    C
ATOM   2978  C   THR H 176      -9.248  18.510 101.109  1.00 22.35      H    C
ATOM   2979  O   THR H 176      -8.234  18.373 101.772  1.00 22.32      H    O
ATOM   2980  CB  THR H 176     -11.276  18.218 102.575  1.00 23.22      H    C
ATOM   2981  OG1 THR H 176     -12.527  17.519 102.692  1.00 31.74      H    O
ATOM   2982  CG2 THR H 176     -11.531  19.677 102.381  1.00 10.30      H    C
ATOM   2983  N   LEU H 177      -9.312  19.378 100.112  1.00 22.69      H    N
ATOM   2984  CA  LEU H 177      -8.179  20.266  99.954  1.00 25.06      H    C
ATOM   2985  C   LEU H 177      -8.730  21.621  99.559  1.00 24.30      H    C
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ATOM   2986  O   LEU H 177      -9.895  21.750  99.205  1.00 22.61      H    O
ATOM   2987  CB  LEU H 177      -7.157  19.757  98.908  1.00 21.57      H    C
ATOM   2988  CG  LEU H 177      -7.270  19.745  97.374  1.00 26.70      H    C
ATOM   2989  CD1 LEU H 177      -7.486  21.147  96.826  1.00 30.91      H    C
ATOM   2990  CD2 LEU H 177      -5.957  19.177  96.740  1.00 15.94      H    C
ATOM   2991  N   SER H 178      -7.866  22.631  99.643  1.00 22.75      H    N
ATOM   2992  CA  SER H 178      -8.247  23.977  99.247  1.00 17.84      H    C
ATOM   2993  C   SER H 178      -7.121  24.563  98.404  1.00 21.14      H    C
ATOM   2994  O   SER H 178      -5.998  24.067  98.432  1.00 24.22      H    O
ATOM   2995  CB  SER H 178      -8.445  24.866 100.475  1.00 13.35      H    C
ATOM   2996  OG  SER H 178      -7.328  24.874 101.317  1.00 13.31      H    O
ATOM   2997  N   SER H 179      -7.410  25.678  97.727  1.00 17.80      H    N
ATOM   2998  CA  SER H 179      -6.422  26.347  96.877  1.00 21.55      H    C
ATOM   2999  C   SER H 179      -6.798  27.835  96.921  1.00 18.82      H    C
ATOM   3000  O   SER H 179      -7.983  28.190  96.806  1.00 16.75      H    O
ATOM   3001  CB  SER H 179      -6.515  25.829  95.405  1.00 15.41      H    C
ATOM   3002  OG  SER H 179      -5.567  26.519  94.582  1.00 21.64      H    O
ATOM   3003  N   SER H 180      -5.800  28.677  97.141  1.00 17.88      H    N
ATOM   3004  CA  SER H 180      -6.028  30.111  97.190  1.00 21.70      H    C
ATOM   3005  C   SER H 180      -5.301  30.722  96.003  1.00 24.16      H    C
ATOM   3006  O   SER H 180      -4.302  30.163  95.518  1.00 26.15      H    O
ATOM   3007  CB  SER H 180      -5.458  30.694  98.476  1.00 14.18      H    C
ATOM   3008  OG  SER H 180      -4.048  30.661  98.488  1.00 22.63      H    O
ATOM   3009  N   VAL H 181      -5.809  31.862  95.544  1.00 24.76      H    N
ATOM   3010  CA  VAL H 181      -5.165  32.572  94.450  1.00 28.32      H    C
ATOM   3011  C   VAL H 181      -5.303  34.070  94.779  1.00 31.11      H    C
ATOM   3012  O   VAL H 181      -6.373  34.534  95.252  1.00 27.76      H    O
ATOM   3013  CB  VAL H 181      -5.777  32.198  93.107  1.00 25.96      H    C
ATOM   3014  CG1 VAL H 181      -7.239  32.585  93.055  1.00 24.23      H    C
ATOM   3015  CG2 VAL H 181      -4.989  32.890  91.965  1.00 28.59      H    C
ATOM   3016  N   THR H 182      -4.211  34.810  94.590  1.00 32.70      H    N
ATOM   3017  CA  THR H 182      -4.218  36.234  94.909  1.00 34.03      H    C
ATOM   3018  C   THR H 182      -4.005  37.020  93.627  1.00 36.50      H    C
ATOM   3019  O   THR H 182      -3.093  36.707  92.850  1.00 37.98      H    O
ATOM   3020  CB  THR H 182      -3.128  36.552  95.875  1.00 31.37      H    C
ATOM   3021  OG1 THR H 182      -3.283  35.720  97.033  1.00 40.50      H    O
ATOM   3022  CG2 THR H 182      -3.195  38.023  96.277  1.00 32.65      H    C
ATOM   3023  N   VAL H 183      -4.848  38.025  93.405  1.00 39.24      H    N
ATOM   3024  CA  VAL H 183      -4.783  38.816  92.175  1.00 37.33      H    C
ATOM   3025  C   VAL H 183      -5.049  40.278  92.535  1.00 40.59      H    C
ATOM   3026  O   VAL H 183      -5.559  40.559  93.616  1.00 43.75      H    O
ATOM   3027  CB  VAL H 183      -5.858  38.322  91.149  1.00 35.36      H    C
ATOM   3028  CG1 VAL H 183      -5.723  36.802  90.921  1.00 23.98      H    C
ATOM   3029  CG2 VAL H 183      -7.238  38.613  91.650  1.00 30.51      H    C
ATOM   3030  N   PRO H 184      -4.671  41.225  91.647  1.00 44.29      H    N
ATOM   3031  CA  PRO H 184      -4.892  42.663  91.903  1.00 43.69      H    C
ATOM   3032  C   PRO H 184      -6.376  42.986  92.160  1.00 45.05      H    C
ATOM   3033  O   PRO H 184      -7.275  42.516  91.440  1.00 45.22      H    O
ATOM   3034  CB  PRO H 184      -4.385  43.323  90.625  1.00 43.90      H    C
ATOM   3035  CG  PRO H 184      -3.269  42.373  90.169  1.00 42.32      H    C
ATOM   3036  CD  PRO H 184      -3.966  41.020  90.368  1.00 44.98      H    C
ATOM   3037  N   SER H 185      -6.639  43.801  93.170  1.00 45.15      H    N
ATOM   3038  CA  SER H 185      -8.029  44.159  93.496  1.00 50.32      H    C
ATOM   3039  C   SER H 185      -8.816  44.602  92.254  1.00 51.82      H    C
ATOM   3040  O   SER H 185      -9.997  44.277  92.098  1.00 53.19      H    O
ATOM   3041  CB  SER H 185      -8.066  45.308  94.512  1.00 52.23      H    C
ATOM   3042  OG  SER H 185      -7.310  45.024  95.657  1.00 55.30      H    O
ATOM   3043  N   SER H 186      -8.143  45.353  91.385  1.00 55.70      H    N
ATOM   3044  CA  SER H 186      -8.744  45.896  90.158  1.00 58.70      H    C
ATOM   3045  C   SER H 186      -9.408  44.843  89.270  1.00 61.29      H    C
ATOM   3046  O   SER H 186     -10.570  44.989  88.896  1.00 61.19      H    O
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	ATOM	3047	CB	SER	H	186	-7.685	46.646	89.357	1.00	59.11	H C
	ATOM	3048	OG	SER	H	186	-6.732	47.223	90.221	1.00	58.60	H O
	ATOM	3049	N	PRO	H	187	-8.660	43.793	88.889	1.00	62.65	H N
	ATOM	3050	CA	PRO	H	187	-9.086	42.667	88.056	1.00	61.57	H C
5	ATOM	3051	C	PRO	H	187	-10.349	41.921	88.486	1.00	61.38	H C
	ATOM	3052	O	PRO	H	187	-11.042	41.382	87.645	1.00	62.12	H O
	ATOM	3053	CB	PRO	H	187	-7.872	41.765	88.089	1.00	60.03	H C
	ATOM	3054	CG	PRO	H	187	-6.774	42.758	87.954	1.00	64.04	H C
	ATOM	3055	CD	PRO	H	187	-7.184	43.826	88.953	1.00	65.51	H C
10	ATOM	3056	N	ARG	H	188	-10.652	41.865	89.779	1.00	58.01	H N
	ATOM	3057	CA	ARG	H	188	-11.843	41.137	90.192	1.00	53.46	H C
	ATOM	3058	C	ARG	H	188	-12.869	41.986	90.932	1.00	53.17	H C
	ATOM	3059	O	ARG	H	188	-12.512	42.894	91.687	1.00	55.75	H O
	ATOM	3060	CB	ARG	H	188	-11.440	39.920	91.041	1.00	51.65	H C
15	ATOM	3061	CG	ARG	H	188	-11.888	38.574	90.466	1.00	47.14	H C
	ATOM	3062	CD	ARG	H	188	-13.080	38.057	91.212	1.00	24.95	H C
	ATOM	3063	NE	ARG	H	188	-13.208	38.806	92.451	1.00	25.44	H N
	ATOM	3064	CZ	ARG	H	188	-14.092	38.535	93.397	1.00	30.93	H C
	ATOM	3065	NH1	ARG	H	188	-14.932	37.526	93.250	1.00	29.87	H N
20	ATOM	3066	NH2	ARG	H	188	-14.137	39.270	94.492	1.00	29.13	H N
	ATOM	3067	N	PRO	H	189	-14.164	41.714	90.705	1.00	49.03	H N
	ATOM	3068	CA	PRO	H	189	-14.695	40.684	89.815	1.00	50.12	H C
	ATOM	3069	C	PRO	H	189	-14.844	41.144	88.361	1.00	54.80	H C
	ATOM	3070	O	PRO	H	189	-15.582	40.532	87.599	1.00	54.44	H O
25	ATOM	3071	CB	PRO	H	189	-16.045	40.378	90.432	1.00	49.09	H C
	ATOM	3072	CG	PRO	H	189	-16.485	41.712	90.883	1.00	45.12	H C
	ATOM	3073	CD	PRO	H	189	-15.246	42.289	91.522	1.00	45.67	H C
	ATOM	3074	N	SER	H	190	-14.158	42.220	87.985	1.00	58.65	H N
	ATOM	3075	CA	SER	H	190	-14.255	42.724	86.615	1.00	59.70	H C
30	ATOM	3076	C	SER	H	190	-13.721	41.670	85.646	1.00	60.48	H C
	ATOM	3077	O	SER	H	190	-14.329	41.395	84.604	1.00	62.92	H O
	ATOM	3078	CB	SER	H	190	-13.471	44.041	86.453	1.00	60.55	H C
	ATOM	3079	OG	SER	H	190	-12.074	43.870	86.607	1.00	60.08	H O
	ATOM	3080	N	GLU	H	191	-12.573	41.101	85.992	1.00	57.13	H N
35	ATOM	3081	CA	GLU	H	191	-11.954	40.053	85.196	1.00	55.55	H C
	ATOM	3082	C	GLU	H	191	-12.266	38.765	85.952	1.00	53.43	H C
	ATOM	3083	O	GLU	H	191	-12.058	38.691	87.155	1.00	54.38	H O
	ATOM	3084	CB	GLU	H	191	-10.448	40.259	85.112	1.00	57.09	H C
	ATOM	3085	CG	GLU	H	191	-10.003	41.394	84.207	1.00	57.68	H C
40	ATOM	3086	CD	GLU	H	191	-8.493	41.571	84.234	1.00	73.34	H C
	ATOM	3087	OE1	GLU	H	191	-7.771	40.548	84.309	1.00	73.73	H O
	ATOM	3088	OE2	GLU	H	191	-8.020	42.728	84.179	1.00	81.17	H O
	ATOM	3089	N	THR	H	192	-12.749	37.753	85.243	1.00	50.94	H N
	ATOM	3090	CA	THR	H	192	-13.137	36.498	85.877	1.00	48.18	H C
45	ATOM	3091	C	THR	H	192	-12.015	35.608	86.408	1.00	44.64	H C
	ATOM	3092	O	THR	H	192	-10.920	35.581	85.861	1.00	42.83	H O
	ATOM	3093	CB	THR	H	192	-13.983	35.681	84.920	1.00	47.39	H C
	ATOM	3094	OG1	THR	H	192	-13.208	35.335	83.770	1.00	52.75	H O
	ATOM	3095	CG2	THR	H	192	-15.162	36.508	84.481	1.00	48.68	H C
50	ATOM	3096	N	VAL	H	193	-12.309	34.884	87.494	1.00	38.76	H N
	ATOM	3097	CA	VAL	H	193	-11.346	33.959	88.096	1.00	35.65	H C
	ATOM	3098	C	VAL	H	193	-12.108	32.663	88.285	1.00	30.66	H C
	ATOM	3099	O	VAL	H	193	-13.128	32.641	88.932	1.00	30.71	H O
	ATOM	3100	CB	VAL	H	193	-10.821	34.477	89.469	1.00	36.30	H C
55	ATOM	3101	CG1	VAL	H	193	-9.893	33.432	90.119	1.00	40.07	H C
	ATOM	3102	CG2	VAL	H	193	-10.021	35.750	89.253	1.00	36.63	H C
	ATOM	3103	N	THR	H	194	-11.609	31.584	87.698	1.00	27.25	H N
	ATOM	3104	CA	THR	H	194	-12.289	30.298	87.766	1.00	31.84	H C
	ATOM	3105	C	THR	H	194	-11.313	29.199	88.150	1.00	30.56	H C
60	ATOM	3106	O	THR	H	194	-10.205	29.164	87.619	1.00	35.10	H O
	ATOM	3107	CB	THR	H	194	-12.922	29.966	86.365	1.00	34.30	H C

ATOM	3108	OG1	THR	H	194	-13.895	30.962	86.049	1.00	38.36	H	O
ATOM	3109	CG2	THR	H	194	-13.599	28.614	86.345	1.00	25.67	H	C
ATOM	3110	N	CYS	H	195	-11.689	28.313	89.081	1.00	27.97	H	N
ATOM	3111	CA	CYS	H	195	-10.779	27.222	89.424	1.00	28.84	H	C
ATOM	3112	C	CYS	H	195	-11.260	25.979	88.670	1.00	28.13	H	C
ATOM	3113	O	CYS	H	195	-12.448	25.684	88.593	1.00	31.76	H	O
ATOM	3114	CB	CYS	H	195	-10.746	26.924	90.934	1.00	27.33	H	C
ATOM	3115	SG	CYS	H	195	-12.275	26.220	91.586	1.00	35.64	H	S
ATOM	3116	N	ASN	H	196	-10.331	25.273	88.077	1.00	27.69	H	N
ATOM	3117	CA	ASN	H	196	-10.679	24.077	87.321	1.00	29.01	H	C
ATOM	3118	C	ASN	H	196	-10.263	22.871	88.114	1.00	26.91	H	C
ATOM	3119	O	ASN	H	196	-9.078	22.668	88.365	1.00	23.66	H	O
ATOM	3120	CB	ASN	H	196	-9.950	24.089	85.974	1.00	31.51	H	C
ATOM	3121	CG	ASN	H	196	-9.856	25.473	85.388	1.00	29.50	H	C
ATOM	3122	OD1	ASN	H	196	-8.794	26.090	85.385	1.00	25.64	H	O
ATOM	3123	ND2	ASN	H	196	-10.980	25.972	84.887	1.00	34.55	H	N
ATOM	3124	N	VAL	H	197	-11.243	22.047	88.475	1.00	24.98	H	N
ATOM	3125	CA	VAL	H	197	-10.980	20.869	89.290	1.00	23.37	H	C
ATOM	3126	C	VAL	H	197	-11.344	19.582	88.587	1.00	25.84	H	C
ATOM	3127	O	VAL	H	197	-12.446	19.458	88.041	1.00	29.92	H	O
ATOM	3128	CB	VAL	H	197	-11.811	20.937	90.611	1.00	24.03	H	C
ATOM	3129	CG1	VAL	H	197	-11.512	19.731	91.490	1.00	23.67	H	C
ATOM	3130	CG2	VAL	H	197	-11.467	22.237	91.355	1.00	16.84	H	C
ATOM	3131	N	ALA	H	198	-10.431	18.623	88.607	1.00	28.07	H	N
ATOM	3132	CA	ALA	H	198	-10.724	17.328	88.004	1.00	29.46	H	C
ATOM	3133	C	ALA	H	198	-10.374	16.237	88.999	1.00	29.74	H	C
ATOM	3134	O	ALA	H	198	-9.376	16.314	89.732	1.00	28.58	H	O
ATOM	3135	CB	ALA	H	198	-9.937	17.125	86.666	1.00	31.83	H	C
ATOM	3136	N	HIS	H	199	-11.234	15.224	89.035	1.00	32.53	H	N
ATOM	3137	CA	HIS	H	199	-11.037	14.078	89.902	1.00	33.86	H	C
ATOM	3138	C	HIS	H	199	-11.232	12.847	89.032	1.00	37.42	H	C
ATOM	3139	O	HIS	H	199	-12.321	12.254	88.992	1.00	41.76	H	O
ATOM	3140	CB	HIS	H	199	-12.073	14.034	90.998	1.00	32.12	H	C
ATOM	3141	CG	HIS	H	199	-11.912	12.867	91.895	1.00	31.49	H	C
ATOM	3142	ND1	HIS	H	199	-12.952	12.004	92.184	1.00	37.94	H	N
ATOM	3143	CD2	HIS	H	199	-10.859	12.456	92.632	1.00	25.88	H	C
ATOM	3144	CE1	HIS	H	199	-12.542	11.128	93.086	1.00	36.27	H	C
ATOM	3145	NE2	HIS	H	199	-11.280	11.384	93.379	1.00	27.41	H	N
ATOM	3146	N	PRO	H	200	-10.174	12.430	88.346	1.00	38.60	H	N
ATOM	3147	CA	PRO	H	200	-10.230	11.270	87.453	1.00	39.66	H	C
ATOM	3148	C	PRO	H	200	-11.011	10.047	87.931	1.00	41.49	H	C
ATOM	3149	O	PRO	H	200	-11.835	9.493	87.180	1.00	43.64	H	O
ATOM	3150	CB	PRO	H	200	-8.757	10.945	87.218	1.00	40.63	H	C
ATOM	3151	CG	PRO	H	200	-8.077	12.314	87.320	1.00	40.85	H	C
ATOM	3152	CD	PRO	H	200	-8.782	12.876	88.552	1.00	40.30	H	C
ATOM	3153	N	ALA	H	201	-10.752	9.620	89.161	1.00	41.88	H	N
ATOM	3154	CA	ALA	H	201	-11.384	8.424	89.704	1.00	41.92	H	C
ATOM	3155	C	ALA	H	201	-12.908	8.316	89.607	1.00	44.22	H	C
ATOM	3156	O	ALA	H	201	-13.438	7.201	89.624	1.00	47.89	H	O
ATOM	3157	CB	ALA	H	201	-10.930	8.210	91.131	1.00	40.12	H	C
ATOM	3158	N	SER	H	202	-13.602	9.448	89.483	1.00	42.09	H	N
ATOM	3159	CA	SER	H	202	-15.060	9.475	89.371	1.00	40.45	H	C
ATOM	3160	C	SER	H	202	-15.422	10.267	88.112	1.00	38.79	H	C
ATOM	3161	O	SER	H	202	-16.543	10.725	87.937	1.00	39.19	H	O
ATOM	3162	CB	SER	H	202	-15.682	10.171	90.599	1.00	42.08	H	C
ATOM	3163	OG	SER	H	202	-15.398	11.576	90.610	1.00	36.22	H	O
ATOM	3164	N	SER	H	203	-14.451	10.429	87.241	1.00	36.91	H	N
ATOM	3165	CA	SER	H	203	-14.633	11.176	86.008	1.00	40.54	H	C
ATOM	3166	C	SER	H	203	-15.268	12.515	86.250	1.00	38.44	H	C
ATOM	3167	O	SER	H	203	-16.147	12.919	85.496	1.00	40.82	H	O
ATOM	3168	CB	SER	H	203	-15.493	10.389	85.007	1.00	40.55	H	C

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ATOM   3169  OG  SER H 203     -14.994   9.087  84.878  1.00 47.70      H    O
ATOM   3170  N   THR H 204     -14.829  13.222  87.286  1.00 35.03      H    N
ATOM   3171  CA  THR H 204     -15.393  14.530  87.585  1.00 34.07      H    C
ATOM   3172  C   THR H 204     -14.544  15.686  87.034  1.00 33.24      H    C
ATOM   3173  O   THR H 204     -13.329  15.696  87.168  1.00 35.71      H    O
ATOM   3174  CB  THR H 204     -15.537  14.741  89.112  1.00 33.83      H    C
ATOM   3175  OG1 THR H 204     -16.255  13.646  89.687  1.00 35.82      H    O
ATOM   3176  CG2 THR H 204     -16.312  15.999  89.393  1.00 34.28      H    C
ATOM   3177  N   ALA H 205     -15.204  16.653  86.407  1.00 34.41      H    N
ATOM   3178  CA  ALA H 205     -14.534  17.840  85.880  1.00 38.94      H    C
ATOM   3179  C   ALA H 205     -15.453  18.995  86.202  1.00 40.07      H    C
ATOM   3180  O   ALA H 205     -16.600  19.055  85.724  1.00 42.36      H    O
ATOM   3181  CB  ALA H 205     -14.322  17.753  84.382  1.00 39.13      H    C
ATOM   3182  N   VAL H 206     -14.967  19.902  87.036  1.00 39.65      H    N
ATOM   3183  CA  VAL H 206     -15.767  21.053  87.420  1.00 37.30      H    C
ATOM   3184  C   VAL H 206     -14.996  22.353  87.222  1.00 37.10      H    C
ATOM   3185  O   VAL H 206     -13.831  22.454  87.600  1.00 40.56      H    O
ATOM   3186  CB  VAL H 206     -16.186  20.947  88.923  1.00 36.53      H    C
ATOM   3187  CG1 VAL H 206     -16.886  22.189  89.369  1.00 32.26      H    C
ATOM   3188  CG2 VAL H 206     -17.098  19.750  89.125  1.00 38.59      H    C
ATOM   3189  N   ASP H 207     -15.626  23.335  86.601  1.00 35.38      H    N
ATOM   3190  CA  ASP H 207     -14.990  24.640  86.473  1.00 37.03      H    C
ATOM   3191  C   ASP H 207     -15.871  25.557  87.308  1.00 35.92      H    C
ATOM   3192  O   ASP H 207     -17.040  25.744  86.999  1.00 39.88      H    O
ATOM   3193  CB  ASP H 207     -14.957  25.124  85.019  1.00 37.71      H    C
ATOM   3194  CG  ASP H 207     -14.115  24.246  84.144  1.00 39.42      H    C
ATOM   3195  OD1 ASP H 207     -12.921  24.093  84.439  1.00 35.89      H    O
ATOM   3196  OD2 ASP H 207     -14.656  23.689  83.162  1.00 48.31      H    O
ATOM   3197  N   LYS H 208     -15.319  26.132  88.368  1.00 39.14      H    N
ATOM   3198  CA  LYS H 208     -16.095  27.022  89.244  1.00 36.68      H    C
ATOM   3199  C   LYS H 208     -15.655  28.476  89.192  1.00 35.58      H    C
ATOM   3200  O   LYS H 208     -14.567  28.829  89.650  1.00 34.67      H    O
ATOM   3201  CB  LYS H 208     -16.005  26.512  90.697  1.00 36.45      H    C
ATOM   3202  CG  LYS H 208     -16.852  27.300  91.664  1.00 36.28      H    C
ATOM   3203  CD  LYS H 208     -17.728  26.320  92.414  1.00 44.47      H    C
ATOM   3204  CE  LYS H 208     -18.601  25.501  91.481  1.00 35.64      H    C
ATOM   3205  NZ  LYS H 208     -19.805  26.271  91.120  1.00 51.91      H    N
ATOM   3206  N   LYS H 209     -16.488  29.339  88.609  1.00 35.32      H    N
ATOM   3207  CA  LYS H 209     -16.140  30.757  88.547  1.00 38.07      H    C
ATOM   3208  C   LYS H 209     -16.346  31.368  89.952  1.00 36.98      H    C
ATOM   3209  O   LYS H 209     -17.343  31.090  90.597  1.00 35.14      H    O
ATOM   3210  CB  LYS H 209     -17.057  31.497  87.562  1.00 38.43      H    C
ATOM   3211  CG  LYS H 209     -16.780  32.990  87.526  1.00 38.76      H    C
ATOM   3212  CD  LYS H 209     -18.026  33.806  87.127  1.00 42.22      H    C
ATOM   3213  CE  LYS H 209     -18.408  33.666  85.683  1.00 47.62      H    C
ATOM   3214  NZ  LYS H 209     -19.364  34.788  85.268  1.00 49.98      H    N
ATOM   3215  N   ILE H 210     -15.398  32.176  90.408  1.00 34.13      H    N
ATOM   3216  CA  ILE H 210     -15.507  32.814  91.720  1.00 34.36      H    C
ATOM   3217  C   ILE H 210     -16.341  34.106  91.545  1.00 36.70      H    C
ATOM   3218  O   ILE H 210     -15.920  34.951  90.751  1.00 36.92      H    O
ATOM   3219  CB  ILE H 210     -14.079  33.178  92.307  1.00 30.96      H    C
ATOM   3220  CG1 ILE H 210     -13.188  31.942  92.372  1.00 25.29      H    C
ATOM   3221  CG2 ILE H 210     -14.210  33.676  93.754  1.00 19.07      H    C
ATOM   3222  CD1 ILE H 210     -13.895  30.740  93.031  1.00 10.95      H    C
ATOM   3223  OXT ILE H 210     -17.412  34.268  92.175  1.00 42.73      H    O
TER    3224       ILE H 210
ATOM   3225  N   SER I   7      14.834  -3.003  64.812  1.00 41.42      I    N
ATOM   3226  CA  SER I   7      16.214  -3.341  65.271  1.00 43.47      I    C
ATOM   3227  C   SER I   7      16.170  -3.928  66.678  1.00 40.84      I    C
ATOM   3228  O   SER I   7      15.109  -3.952  67.298  1.00 48.28      I    O
ATOM   3229  CB  SER I   7      17.091  -2.097  65.247  1.00 40.12      I    C
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	ATOM	3230	OG	SER	I	7	18.449	-2.441	65.503	1.00	44.19	I	O
	ATOM	3231	N	THR	I	8	17.309	-4.405	67.177	1.00	34.11	I	N
	ATOM	3232	CA	THR	I	8	17.384	-5.002	68.513	1.00	29.26	I	C
	ATOM	3233	C	THR	I	8	18.542	-4.314	69.246	1.00	26.30	I	C
5	ATOM	3234	O	THR	I	8	19.375	-3.666	68.616	1.00	24.38	I	O
	ATOM	3235	CB	THR	I	8	17.703	-6.516	68.458	1.00	28.98	I	C
	ATOM	3236	OG1	THR	I	8	18.969	-6.713	67.790	1.00	27.25	I	O
	ATOM	3237	CG2	THR	I	8	16.606	-7.253	67.702	1.00	36.34	I	C
	ATOM	3238	N	ALA	I	9	18.512	-4.390	70.571	1.00	21.02	I	N
10	ATOM	3239	CA	ALA	I	9	19.568	-3.787	71.402	1.00	23.18	I	C
	ATOM	3240	C	ALA	I	9	20.950	-4.314	70.951	1.00	24.18	I	C
	ATOM	3241	O	ALA	I	9	21.937	-3.569	70.892	1.00	20.92	I	O
	ATOM	3242	CB	ALA	I	9	19.330	-4.175	72.849	1.00	21.47	I	C
	ATOM	3243	N	LEU	I	10	21.013	-5.611	70.655	1.00	24.97	I	N
15	ATOM	3244	CA	LEU	I	10	22.307	-6.193	70.237	1.00	26.56	I	C
	ATOM	3245	C	LEU	I	10	22.751	-5.658	68.891	1.00	25.43	I	C
	ATOM	3246	O	LEU	I	10	23.914	-5.335	68.675	1.00	19.53	I	O
	ATOM	3247	CB	LEU	I	10	22.221	-7.732	70.202	1.00	28.67	I	C
	ATOM	3248	CG	LEU	I	10	23.461	-8.495	69.682	1.00	26.05	I	C
20	ATOM	3249	CD1	LEU	I	10	24.700	-8.085	70.501	1.00	17.07	I	C
	ATOM	3250	CD2	LEU	I	10	23.224	-9.990	69.854	1.00	24.04	I	C
	ATOM	3251	N	ARG	I	11	21.798	-5.499	67.962	1.00	24.80	I	N
	ATOM	3252	CA	ARG	I	11	22.203	-4.971	66.672	1.00	27.70	I	C
	ATOM	3253	C	ARG	I	11	22.757	-3.549	66.827	1.00	26.39	I	C
25	ATOM	3254	O	ARG	I	11	23.758	-3.173	66.224	1.00	21.33	I	O
	ATOM	3255	CB	ARG	I	11	20.991	-4.942	65.706	1.00	29.11	I	C
	ATOM	3256	CG	ARG	I	11	21.336	-4.327	64.341	1.00	37.83	I	C
	ATOM	3257	CD	ARG	I	11	20.129	-4.428	63.388	1.00	59.35	I	C
	ATOM	3258	NE	ARG	I	11	19.798	-5.830	63.125	1.00	77.61	I	N
30	ATOM	3259	CZ	ARG	I	11	18.838	-6.243	62.294	1.00	87.85	I	C
	ATOM	3260	NH1	ARG	I	11	18.628	-7.546	62.116	1.00	88.83	I	N
	ATOM	3261	NH2	ARG	I	11	18.078	-5.355	61.640	1.00	93.94	I	N
	ATOM	3262	N	GLU	I	12	22.046	-2.733	67.605	1.00	26.89	I	N
	ATOM	3263	CA	GLU	I	12	22.466	-1.355	67.799	1.00	29.03	I	C
35	ATOM	3264	C	GLU	I	12	23.851	-1.358	68.464	1.00	28.58	I	C
	ATOM	3265	O	GLU	I	12	24.695	-0.578	68.088	1.00	30.04	I	O
	ATOM	3266	CB	GLU	I	12	21.448	-0.564	68.676	1.00	31.80	I	C
	ATOM	3267	CG	GLU	I	12	20.044	-0.379	68.020	1.00	32.87	I	C
	ATOM	3268	CD	GLU	I	12	20.170	0.154	66.634	1.00	42.19	I	C
40	ATOM	3269	OE1	GLU	I	12	20.725	1.266	66.479	1.00	53.05	I	O
	ATOM	3270	OE2	GLU	I	12	19.739	-0.539	65.689	1.00	56.29	I	O
	ATOM	3271	N	LEU	I	13	24.085	-2.252	69.415	1.00	26.72	I	N
	ATOM	3272	CA	LEU	I	13	25.411	-2.267	70.083	1.00	25.15	I	C
	ATOM	3273	C	LEU	I	13	26.478	-2.630	69.053	1.00	23.94	I	C
45	ATOM	3274	O	LEU	I	13	27.532	-2.002	68.968	1.00	23.25	I	O
	ATOM	3275	CB	LEU	I	13	25.430	-3.257	71.250	1.00	19.59	I	C
	ATOM	3276	CG	LEU	I	13	26.822	-3.465	71.893	1.00	21.18	I	C
	ATOM	3277	CD1	LEU	I	13	27.527	-2.134	72.269	1.00	17.02	I	C
	ATOM	3278	CD2	LEU	I	13	26.609	-4.357	73.128	1.00	25.81	I	C
50	ATOM	3279	N	ILE	I	14	26.169	-3.614	68.219	1.00	22.17	I	N
	ATOM	3280	CA	ILE	I	14	27.151	-3.987	67.195	1.00	22.12	I	C
	ATOM	3281	C	ILE	I	14	27.462	-2.824	66.272	1.00	24.29	I	C
	ATOM	3282	O	ILE	I	14	28.630	-2.545	65.946	1.00	20.50	I	O
	ATOM	3283	CB	ILE	I	14	26.636	-5.195	66.369	1.00	22.54	I	C
55	ATOM	3284	CG1	ILE	I	14	26.703	-6.427	67.261	1.00	21.93	I	C
	ATOM	3285	CG2	ILE	I	14	27.478	-5.405	65.142	1.00	25.41	I	C
	ATOM	3286	CD1	ILE	I	14	25.918	-7.632	66.756	1.00	8.06	I	C
	ATOM	3287	N	GLU	I	15	26.418	-2.123	65.839	1.00	21.20	I	N
	ATOM	3288	CA	GLU	I	15	26.638	-0.996	64.931	1.00	25.50	I	C
60	ATOM	3289	C	GLU	I	15	27.501	0.044	65.592	1.00	28.78	I	C
	ATOM	3290	O	GLU	I	15	28.384	0.635	64.951	1.00	27.98	I	O

	ATOM	3291	CB	GLU	I	15	25.295	-0.372	64.555	1.00	27.43	I	C
	ATOM	3292	CG	GLU	I	15	24.551	-1.225	63.545	1.00	42.04	I	C
	ATOM	3293	CD	GLU	I	15	23.135	-0.746	63.339	1.00	54.77	I	C
	ATOM	3294	OE1	GLU	I	15	22.369	-1.442	62.633	1.00	58.59	I	O
5	ATOM	3295	OE2	GLU	I	15	22.795	0.323	63.896	1.00	59.54	I	O
	ATOM	3296	N	GLU	I	16	27.273	0.278	66.892	1.00	25.33	I	N
	ATOM	3297	CA	GLU	I	16	28.104	1.315	67.541	1.00	26.19	I	C
	ATOM	3298	C	GLU	I	16	29.575	0.871	67.615	1.00	28.29	I	C
	ATOM	3299	O	GLU	I	16	30.478	1.680	67.399	1.00	29.14	I	O
10	ATOM	3300	CB	GLU	I	16	27.565	1.649	68.961	1.00	26.31	I	C
	ATOM	3301	CG	GLU	I	16	28.461	2.581	69.830	1.00	20.48	I	C
	ATOM	3302	CD	GLU	I	16	28.623	3.961	69.264	1.00	32.83	I	C
	ATOM	3303	OE1	GLU	I	16	27.908	4.295	68.291	1.00	40.64	I	O
	ATOM	3304	OE2	GLU	I	16	29.472	4.734	69.788	1.00	43.53	I	O
15	ATOM	3305	N	LEU	I	17	29.825	-0.397	67.929	1.00	28.42	I	N
	ATOM	3306	CA	LEU	I	17	31.221	-0.866	68.009	1.00	27.38	I	C
	ATOM	3307	C	LEU	I	17	31.904	-0.791	66.626	1.00	28.23	I	C
	ATOM	3308	O	LEU	I	17	33.088	-0.550	66.527	1.00	27.73	I	O
	ATOM	3309	CB	LEU	I	17	31.271	-2.277	68.521	1.00	26.55	I	C
20	ATOM	3310	CG	LEU	I	17	30.675	-2.476	69.921	1.00	22.72	I	C
	ATOM	3311	CD1	LEU	I	17	30.866	-3.925	70.342	1.00	5.48	I	C
	ATOM	3312	CD2	LEU	I	17	31.304	-1.516	70.916	1.00	6.15	I	C
	ATOM	3313	N	VAL	I	18	31.121	-0.991	65.570	1.00	28.82	I	N
	ATOM	3314	CA	VAL	I	18	31.638	-0.900	64.202	1.00	26.07	I	C
25	ATOM	3315	C	VAL	I	18	32.001	0.574	64.016	1.00	27.53	I	C
	ATOM	3316	O	VAL	I	18	33.103	0.905	63.597	1.00	28.33	I	O
	ATOM	3317	CB	VAL	I	18	30.542	-1.316	63.171	1.00	26.01	I	C
	ATOM	3318	CG1	VAL	I	18	30.970	-0.908	61.741	1.00	23.17	I	C
	ATOM	3319	CG2	VAL	I	18	30.355	-2.841	63.203	1.00	25.17	I	C
30	ATOM	3320	N	ASN	I	19	31.090	1.462	64.389	1.00	26.75	I	N
	ATOM	3321	CA	ASN	I	19	31.322	2.900	64.248	1.00	29.23	I	C
	ATOM	3322	C	ASN	I	19	32.602	3.414	64.906	1.00	32.04	I	C
	ATOM	3323	O	ASN	I	19	33.333	4.206	64.313	1.00	35.66	I	O
	ATOM	3324	CB	ASN	I	19	30.153	3.700	64.826	1.00	25.97	I	C
35	ATOM	3325	CG	ASN	I	19	28.965	3.675	63.923	1.00	30.76	I	C
	ATOM	3326	OD1	ASN	I	19	29.064	3.142	62.834	1.00	41.11	I	O
	ATOM	3327	ND2	ASN	I	19	27.830	4.230	64.362	1.00	36.69	I	N
	ATOM	3328	N	ILE	I	20	32.881	2.953	66.120	1.00	33.02	I	N
	ATOM	3329	CA	ILE	I	20	34.051	3.465	66.808	1.00	28.41	I	C
40	ATOM	3330	C	ILE	I	20	35.341	2.745	66.514	1.00	31.21	I	C
	ATOM	3331	O	ILE	I	20	36.404	3.188	66.974	1.00	36.21	I	O
	ATOM	3332	CB	ILE	I	20	33.808	3.522	68.353	1.00	27.04	I	C
	ATOM	3333	CG1	ILE	I	20	33.570	2.114	68.912	1.00	22.48	I	C
	ATOM	3334	CG2	ILE	I	20	32.621	4.425	68.633	1.00	26.74	I	C
45	ATOM	3335	CD1	ILE	I	20	33.456	2.091	70.446	1.00	22.08	I	C
	ATOM	3336	N	THR	I	21	35.295	1.659	65.765	1.00	28.97	I	N
	ATOM	3337	CA	THR	I	21	36.542	0.961	65.468	1.00	37.12	I	C
	ATOM	3338	C	THR	I	21	37.026	1.176	64.016	1.00	43.61	I	C
	ATOM	3339	O	THR	I	21	38.030	0.547	63.631	1.00	41.22	I	O
50	ATOM	3340	CB	THR	I	21	36.422	-0.551	65.744	1.00	34.69	I	C
	ATOM	3341	OG1	THR	I	21	35.269	-1.073	65.083	1.00	32.38	I	O
	ATOM	3342	CG2	THR	I	21	36.270	-0.797	67.257	1.00	40.35	I	C
	ATOM	3343	OXT	THR	I	21	36.409	1.993	63.291	1.00	55.16	I	O
	ATOM	3344	N	ALA	I	26	43.997	8.557	65.207	1.00	69.33	I	N
55	ATOM	3345	CA	ALA	I	26	44.625	7.777	66.323	1.00	68.31	I	C
	ATOM	3346	C	ALA	I	26	43.714	6.622	66.754	1.00	64.43	I	C
	ATOM	3347	O	ALA	I	26	42.506	6.636	66.515	1.00	62.57	I	O
	ATOM	3348	CB	ALA	I	26	44.911	8.711	67.544	1.00	68.87	I	C
	ATOM	3349	N	PRO	I	27	44.291	5.604	67.401	1.00	61.86	I	N
60	ATOM	3350	CA	PRO	I	27	43.464	4.466	67.845	1.00	58.39	I	C
	ATOM	3351	C	PRO	I	27	42.411	4.863	68.889	1.00	52.46	I	C

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ATOM   3352  O   PRO I  27      42.542   5.887  69.578  1.00 50.21      I    O
ATOM   3353  CB  PRO I  27      44.481   3.486  68.436  1.00 60.58      I    C
ATOM   3354  CG  PRO I  27      45.851   3.951  67.829  1.00 64.15      I    C
ATOM   3355  CD  PRO I  27      45.700   5.452  67.814  1.00 61.04      I    C
ATOM   3356  N   LEU I  28      41.371   4.040  68.988  1.00 44.59      I    N
ATOM   3357  CA  LEU I  28      40.291   4.236  69.953  1.00 38.35      I    C
ATOM   3358  C   LEU I  28      40.815   4.411  71.393  1.00 36.55      I    C
ATOM   3359  O   LEU I  28      41.470   3.515  71.932  1.00 33.53      I    O
ATOM   3360  CB  LEU I  28      39.361   3.039  69.898  1.00 33.20      I    C
ATOM   3361  CG  LEU I  28      38.138   3.175  70.774  1.00 34.45      I    C
ATOM   3362  CD1 LEU I  28      37.435   4.451  70.368  1.00 31.50      I    C
ATOM   3363  CD2 LEU I  28      37.243   1.936  70.659  1.00 37.17      I    C
ATOM   3364  N   CYS I  29      40.517   5.546  72.026  1.00 35.16      I    N
ATOM   3365  CA  CYS I  29      40.968   5.823  73.401  1.00 36.16      I    C
ATOM   3366  C   CYS I  29      42.480   5.581  73.512  1.00 38.10      I    C
ATOM   3367  O   CYS I  29      43.005   5.144  74.564  1.00 39.22      I    O
ATOM   3368  CB  CYS I  29      40.268   4.916  74.411  1.00 35.11      I    C
ATOM   3369  SG  CYS I  29      38.447   4.968  74.417  1.00 37.70      I    S
ATOM   3370  N   ASN I  30      43.169   5.894  72.425  1.00 40.14      I    N
ATOM   3371  CA  ASN I  30      44.602   5.679  72.333  1.00 39.35      I    C
ATOM   3372  C   ASN I  30      45.329   5.949  73.624  1.00 36.93      I    C
ATOM   3373  O   ASN I  30      45.210   7.017  74.208  1.00 32.09      I    O
ATOM   3374  CB  ASN I  30      45.207   6.547  71.244  1.00 43.64      I    C
ATOM   3375  CG  ASN I  30      46.711   6.362  71.155  1.00 55.59      I    C
ATOM   3376  OD1 ASN I  30      47.194   5.233  70.959  1.00 62.75      I    O
ATOM   3377  ND2 ASN I  30      47.462   7.453  71.337  1.00 51.82      I    N
ATOM   3378  N   GLY I  31      46.074   4.952  74.075  1.00 38.03      I    N
ATOM   3379  CA  GLY I  31      46.821   5.085  75.306  1.00 39.13      I    C
ATOM   3380  C   GLY I  31      46.164   4.380  76.488  1.00 39.21      I    C
ATOM   3381  O   GLY I  31      46.842   4.002  77.439  1.00 43.77      I    O
ATOM   3382  N   SER I  32      44.851   4.173  76.433  1.00 34.47      I    N
ATOM   3383  CA  SER I  32      44.168   3.551  77.558  1.00 32.83      I    C
ATOM   3384  C   SER I  32      44.218   2.038  77.452  1.00 29.83      I    C
ATOM   3385  O   SER I  32      44.077   1.493  76.377  1.00 31.08      I    O
ATOM   3386  CB  SER I  32      42.691   4.023  77.612  1.00 31.53      I    C
ATOM   3387  OG  SER I  32      42.650   5.395  77.934  1.00 34.76      I    O
ATOM   3388  N   MET I  33      44.379   1.376  78.587  1.00 27.38      I    N
ATOM   3389  CA  MET I  33      44.446  -0.073  78.662  1.00 24.36      I    C
ATOM   3390  C   MET I  33      43.337  -0.507  79.639  1.00 25.82      I    C
ATOM   3391  O   MET I  33      43.031   0.204  80.584  1.00 26.49      I    O
ATOM   3392  CB  MET I  33      45.777  -0.501  79.265  1.00 26.43      I    C
ATOM   3393  CG  MET I  33      46.998   0.144  78.599  1.00 24.81      I    C
ATOM   3394  SD  MET I  33      47.119  -0.525  76.995  1.00 42.00      I    S
ATOM   3395  CE  MET I  33      47.786  -2.194  77.366  1.00 17.53      I    C
ATOM   3396  N   VAL I  34      42.805  -1.705  79.425  1.00 21.73      I    N
ATOM   3397  CA  VAL I  34      41.756  -2.252  80.243  1.00 19.21      I    C
ATOM   3398  C   VAL I  34      42.041  -3.740  80.451  1.00 19.97      I    C
ATOM   3399  O   VAL I  34      42.957  -4.311  79.872  1.00 21.24      I    O
ATOM   3400  CB  VAL I  34      40.355  -2.169  79.540  1.00 17.84      I    C
ATOM   3401  CG1 VAL I  34      39.972  -0.700  79.385  1.00 18.18      I    C
ATOM   3402  CG2 VAL I  34      40.407  -2.897  78.187  1.00 13.68      I    C
ATOM   3403  N   TRP I  35      41.232  -4.380  81.264  1.00 20.73      I    N
ATOM   3404  CA  TRP I  35      41.500  -5.774  81.451  1.00 23.82      I    C
ATOM   3405  C   TRP I  35      40.614  -6.606  80.556  1.00 22.12      I    C
ATOM   3406  O   TRP I  35      39.561  -6.168  80.060  1.00 25.30      I    O
ATOM   3407  CB  TRP I  35      41.341  -6.148  82.905  1.00 26.51      I    C
ATOM   3408  CG  TRP I  35      40.032  -5.862  83.480  1.00 27.26      I    C
ATOM   3409  CD1 TRP I  35      38.843  -6.512  83.204  1.00 25.09      I    C
ATOM   3410  CD2 TRP I  35      39.775  -4.979  84.581  1.00 28.63      I    C
ATOM   3411  NE1 TRP I  35      37.854  -6.089  84.106  1.00 29.68      I    N
ATOM   3412  CE2 TRP I  35      38.402  -5.145  84.947  1.00 32.54      I    C
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ATOM	3413	CE3	TRP	I	35	40.568	-4.070	85.298	1.00	27.26	I	C
ATOM	3414	CZ2	TRP	I	35	37.820	-4.434	85.992	1.00	29.43	I	C
ATOM	3415	CZ3	TRP	I	35	39.987	-3.368	86.342	1.00	33.13	I	C
ATOM	3416	CH2	TRP	I	35	38.623	-3.553	86.683	1.00	30.81	I	C
ATOM	3417	N	SER	I	36	41.057	-7.830	80.328	1.00	22.08	I	N
ATOM	3418	CA	SER	I	36	40.306	-8.723	79.463	1.00	22.46	I	C
ATOM	3419	C	SER	I	36	39.083	-9.330	80.132	1.00	22.65	I	C
ATOM	3420	O	SER	I	36	39.001	-9.447	81.350	1.00	24.38	I	O
ATOM	3421	CB	SER	I	36	41.211	-9.882	79.041	1.00	21.35	I	C
ATOM	3422	OG	SER	I	36	41.750	-10.425	80.244	1.00	29.08	I	O
ATOM	3423	N	ILE	I	37	38.119	-9.702	79.315	1.00	22.95	I	N
ATOM	3424	CA	ILE	I	37	36.992	-10.426	79.841	1.00	25.36	I	C
ATOM	3425	C	ILE	I	37	37.418	-11.897	79.613	1.00	26.84	I	C
ATOM	3426	O	ILE	I	37	38.241	-12.177	78.737	1.00	29.27	I	O
ATOM	3427	CB	ILE	I	37	35.714	-10.086	79.094	1.00	25.04	I	C
ATOM	3428	CG1	ILE	I	37	35.923	-9.994	77.620	1.00	34.62	I	C
ATOM	3429	CG2	ILE	I	37	35.237	-8.686	79.517	1.00	30.64	I	C
ATOM	3430	CD1	ILE	I	37	34.699	-9.222	76.962	1.00	30.59	I	C
ATOM	3431	N	ASN	I	38	36.860	-12.821	80.361	1.00	30.34	I	N
ATOM	3432	CA	ASN	I	38	37.290	-14.232	80.225	1.00	34.97	I	C
ATOM	3433	C	ASN	I	38	36.210	-15.281	79.957	1.00	35.10	I	C
ATOM	3434	O	ASN	I	38	36.406	-16.244	79.188	1.00	37.36	I	O
ATOM	3435	CB	ASN	I	38	38.061	-14.611	81.512	1.00	39.38	I	C
ATOM	3436	CG	ASN	I	38	39.216	-13.645	81.796	1.00	50.58	I	C
ATOM	3437	OD1	ASN	I	38	40.131	-13.509	80.975	1.00	56.26	I	O
ATOM	3438	ND2	ASN	I	38	39.173	-12.956	82.949	1.00	56.07	I	N
ATOM	3439	N	LEU	I	39	35.064	-15.116	80.589	1.00	32.58	I	N
ATOM	3440	CA	LEU	I	39	34.009	-16.109	80.469	1.00	30.50	I	C
ATOM	3441	C	LEU	I	39	32.927	-15.725	79.516	1.00	30.46	I	C
ATOM	3442	O	LEU	I	39	32.739	-14.539	79.226	1.00	29.70	I	O
ATOM	3443	CB	LEU	I	39	33.360	-16.349	81.840	1.00	31.84	I	C
ATOM	3444	CG	LEU	I	39	34.306	-16.668	82.986	1.00	35.60	I	C
ATOM	3445	CD1	LEU	I	39	33.523	-16.640	84.316	1.00	45.44	I	C
ATOM	3446	CD2	LEU	I	39	34.963	-18.037	82.724	1.00	39.91	I	C
ATOM	3447	N	THR	I	40	32.215	-16.739	79.028	1.00	32.11	I	N
ATOM	3448	CA	THR	I	40	31.090	-16.516	78.137	1.00	36.92	I	C
ATOM	3449	C	THR	I	40	29.935	-15.952	78.953	1.00	36.68	I	C
ATOM	3450	O	THR	I	40	29.227	-15.040	78.508	1.00	41.36	I	O
ATOM	3451	CB	THR	I	40	30.565	-17.848	77.503	1.00	38.87	I	C
ATOM	3452	OG1	THR	I	40	30.405	-18.854	78.536	1.00	44.51	I	O
ATOM	3453	CG2	THR	I	40	31.520	-18.325	76.432	1.00	38.41	I	C
ATOM	3454	N	ALA	I	41	29.757	-16.503	80.145	1.00	34.46	I	N
ATOM	3455	CA	ALA	I	41	28.683	-16.071	81.033	1.00	35.79	I	C
ATOM	3456	C	ALA	I	41	28.903	-14.655	81.599	1.00	33.42	I	C
ATOM	3457	O	ALA	I	41	30.012	-14.303	82.031	1.00	31.37	I	O
ATOM	3458	CB	ALA	I	41	28.522	-17.069	82.189	1.00	37.14	I	C
ATOM	3459	N	GLY	I	42	27.831	-13.862	81.582	1.00	28.18	I	N
ATOM	3460	CA	GLY	I	42	27.864	-12.495	82.100	1.00	26.16	I	C
ATOM	3461	C	GLY	I	42	28.773	-11.607	81.290	1.00	25.89	I	C
ATOM	3462	O	GLY	I	42	29.338	-10.675	81.811	1.00	23.85	I	O
ATOM	3463	N	MET	I	43	28.932	-11.910	80.003	1.00	27.06	I	N
ATOM	3464	CA	MET	I	43	29.835	-11.125	79.167	1.00	26.49	I	C
ATOM	3465	C	MET	I	43	29.514	-9.613	79.089	1.00	25.63	I	C
ATOM	3466	O	MET	I	43	30.422	-8.806	79.072	1.00	24.70	I	O
ATOM	3467	CB	MET	I	43	29.863	-11.691	77.726	1.00	25.09	I	C
ATOM	3468	CG	MET	I	43	30.876	-10.946	76.823	1.00	31.87	I	C
ATOM	3469	SD	MET	I	43	30.927	-11.571	75.102	1.00	50.36	I	S
ATOM	3470	CE	MET	I	43	29.431	-10.913	74.580	1.00	49.83	I	C
ATOM	3471	N	TYR	I	44	28.228	-9.239	78.967	1.00	23.56	I	N
ATOM	3472	CA	TYR	I	44	27.920	-7.799	78.843	1.00	21.86	I	C
ATOM	3473	C	TYR	I	44	28.349	-7.096	80.124	1.00	19.99	I	C

ATOM	3474	O	TYR	I	44	28.948	-6.028	80.088	1.00	23.39	I	O
ATOM	3475	CB	TYR	I	44	26.440	-7.549	78.655	1.00	23.84	I	C
ATOM	3476	CG	TYR	I	44	25.878	-8.026	77.350	1.00	25.71	I	C
ATOM	3477	CD1	TYR	I	44	26.263	-7.427	76.154	1.00	25.80	I	C
ATOM	3478	CD2	TYR	I	44	24.952	-9.061	77.315	1.00	27.28	I	C
ATOM	3479	CE1	TYR	I	44	25.733	-7.842	74.947	1.00	27.01	I	C
ATOM	3480	CE2	TYR	I	44	24.415	-9.498	76.100	1.00	22.75	I	C
ATOM	3481	CZ	TYR	I	44	24.824	-8.867	74.922	1.00	25.01	I	C
ATOM	3482	OH	TYR	I	44	24.320	-9.249	73.690	1.00	22.75	I	O
ATOM	3483	N	CYS	I	45	28.048	-7.724	81.245	1.00	17.09	I	N
ATOM	3484	CA	CYS	I	45	28.450	-7.120	82.510	1.00	17.82	I	C
ATOM	3485	C	CYS	I	45	29.967	-7.059	82.631	1.00	16.25	I	C
ATOM	3486	O	CYS	I	45	30.515	-6.076	83.113	1.00	21.21	I	O
ATOM	3487	CB	CYS	I	45	27.928	-7.903	83.689	1.00	15.24	I	C
ATOM	3488	SG	CYS	I	45	26.116	-7.936	83.883	1.00	20.73	I	S
ATOM	3489	N	ALA	I	46	30.665	-8.135	82.267	1.00	18.66	I	N
ATOM	3490	CA	ALA	I	46	32.128	-8.093	82.348	1.00	17.71	I	C
ATOM	3491	C	ALA	I	46	32.732	-7.009	81.432	1.00	19.91	I	C
ATOM	3492	O	ALA	I	46	33.705	-6.368	81.794	1.00	20.23	I	O
ATOM	3493	CB	ALA	I	46	32.746	-9.518	81.983	1.00	15.35	I	C
ATOM	3494	N	ALA	I	47	32.200	-6.861	80.216	1.00	23.62	I	N
ATOM	3495	CA	ALA	I	47	32.684	-5.845	79.286	1.00	22.12	I	C
ATOM	3496	C	ALA	I	47	32.457	-4.476	79.896	1.00	21.78	I	C
ATOM	3497	O	ALA	I	47	33.305	-3.602	79.813	1.00	18.94	I	O
ATOM	3498	CB	ALA	I	47	31.927	-5.952	77.927	1.00	18.65	I	C
ATOM	3499	N	LEU	I	48	31.287	-4.290	80.481	1.00	21.70	I	N
ATOM	3500	CA	LEU	I	48	31.014	-2.995	81.145	1.00	21.03	I	C
ATOM	3501	C	LEU	I	48	32.041	-2.745	82.292	1.00	21.18	I	C
ATOM	3502	O	LEU	I	48	32.589	-1.653	82.438	1.00	16.61	I	O
ATOM	3503	CB	LEU	I	48	29.582	-3.040	81.727	1.00	21.70	I	C
ATOM	3504	CG	LEU	I	48	29.216	-1.822	82.642	1.00	13.05	I	C
ATOM	3505	CD1	LEU	I	48	29.319	-0.520	81.854	1.00	9.05	I	C
ATOM	3506	CD2	LEU	I	48	27.771	-2.056	83.235	1.00	15.13	I	C
ATOM	3507	N	GLU	I	49	32.255	-3.767	83.108	1.00	20.18	I	N
ATOM	3508	CA	GLU	I	49	33.203	-3.663	84.258	1.00	19.63	I	C
ATOM	3509	C	GLU	I	49	34.601	-3.275	83.786	1.00	20.55	I	C
ATOM	3510	O	GLU	I	49	35.335	-2.512	84.439	1.00	26.90	I	O
ATOM	3511	CB	GLU	I	49	33.226	-5.012	85.031	1.00	17.04	I	C
ATOM	3512	CG	GLU	I	49	31.984	-5.184	85.968	1.00	20.14	I	C
ATOM	3513	CD	GLU	I	49	31.987	-4.123	87.040	1.00	22.52	I	C
ATOM	3514	OE1	GLU	I	49	32.933	-4.160	87.843	1.00	21.57	I	O
ATOM	3515	OE2	GLU	I	49	31.078	-3.244	87.073	1.00	10.29	I	O
ATOM	3516	N	SER	I	50	34.973	-3.759	82.611	1.00	18.39	I	N
ATOM	3517	CA	SER	I	50	36.307	-3.428	82.082	1.00	18.04	I	C
ATOM	3518	C	SER	I	50	36.368	-2.022	81.492	1.00	18.38	I	C
ATOM	3519	O	SER	I	50	37.235	-1.228	81.848	1.00	19.69	I	O
ATOM	3520	CB	SER	I	50	36.684	-4.412	80.956	1.00	16.41	I	C
ATOM	3521	OG	SER	I	50	37.988	-4.119	80.518	1.00	14.68	I	O
ATOM	3522	N	LEU	I	51	35.399	-1.714	80.618	1.00	19.34	I	N
ATOM	3523	CA	LEU	I	51	35.374	-0.436	79.913	1.00	17.71	I	C
ATOM	3524	C	LEU	I	51	34.994	0.798	80.754	1.00	19.46	I	C
ATOM	3525	O	LEU	I	51	35.371	1.923	80.412	1.00	21.21	I	O
ATOM	3526	CB	LEU	I	51	34.421	-0.552	78.686	1.00	16.17	I	C
ATOM	3527	CG	LEU	I	51	35.014	-1.455	77.585	1.00	11.29	I	C
ATOM	3528	CD1	LEU	I	51	34.002	-1.641	76.483	1.00	7.04	I	C
ATOM	3529	CD2	LEU	I	51	36.271	-0.787	76.972	1.00	14.57	I	C
ATOM	3530	N	ILE	I	52	34.326	0.582	81.875	1.00	18.04	I	N
ATOM	3531	CA	ILE	I	52	33.927	1.732	82.725	1.00	16.93	I	C
ATOM	3532	C	ILE	I	52	35.161	2.394	83.304	1.00	17.40	I	C
ATOM	3533	O	ILE	I	52	35.133	3.574	83.726	1.00	22.32	I	O
ATOM	3534	CB	ILE	I	52	32.981	1.272	83.897	1.00	17.81	I	C

ATOM	3535	CG1	ILE	I	52	32.253	2.493	84.538	1.00	21.78	I	C
ATOM	3536	CG2	ILE	I	52	33.789	0.520	84.971	1.00	9.73	I	C
ATOM	3537	CD1	ILE	I	52	31.212	3.105	83.597	1.00	8.98	I	C
ATOM	3538	N	ASN	I	53	36.272	1.649	83.374	1.00	22.00	I	N
ATOM	3539	CA	ASN	I	53	37.493	2.243	83.923	1.00	21.48	I	C
ATOM	3540	C	ASN	I	53	38.211	3.184	82.999	1.00	21.88	I	C
ATOM	3541	O	ASN	I	53	39.138	3.887	83.431	1.00	23.95	I	O
ATOM	3542	CB	ASN	I	53	38.459	1.157	84.358	1.00	18.16	I	C
ATOM	3543	CG	ASN	I	53	37.914	0.385	85.511	1.00	29.89	I	C
ATOM	3544	OD1	ASN	I	53	37.311	0.977	86.434	1.00	31.88	I	O
ATOM	3545	ND2	ASN	I	53	38.068	-0.941	85.467	1.00	41.94	I	N
ATOM	3546	N	VAL	I	54	37.781	3.241	81.733	1.00	23.83	I	N
ATOM	3547	CA	VAL	I	54	38.471	4.131	80.784	1.00	25.45	I	C
ATOM	3548	C	VAL	I	54	38.204	5.591	81.101	1.00	29.82	I	C
ATOM	3549	O	VAL	I	54	37.062	5.987	81.206	1.00	31.49	I	O
ATOM	3550	CB	VAL	I	54	38.064	3.832	79.306	1.00	20.94	I	C
ATOM	3551	CG1	VAL	I	54	38.791	4.820	78.352	1.00	11.51	I	C
ATOM	3552	CG2	VAL	I	54	38.453	2.385	78.975	1.00	17.89	I	C
ATOM	3553	N	SER	I	55	39.278	6.374	81.258	1.00	33.89	I	N
ATOM	3554	CA	SER	I	55	39.169	7.797	81.566	1.00	34.19	I	C
ATOM	3555	C	SER	I	55	39.539	8.646	80.383	1.00	33.52	I	C
ATOM	3556	O	SER	I	55	40.396	8.279	79.553	1.00	37.91	I	O
ATOM	3557	CB	SER	I	55	40.112	8.161	82.724	1.00	35.58	I	C
ATOM	3558	OG	SER	I	55	40.101	9.570	82.957	1.00	53.86	I	O
ATOM	3559	N	GLY	I	56	38.880	9.774	80.267	1.00	28.58	I	N
ATOM	3560	CA	GLY	I	56	39.231	10.704	79.205	1.00	28.05	I	C
ATOM	3561	C	GLY	I	56	38.958	10.276	77.774	1.00	29.97	I	C
ATOM	3562	O	GLY	I	56	39.636	10.722	76.851	1.00	30.95	I	O
ATOM	3563	N	CYS	I	57	37.958	9.430	77.564	1.00	27.62	I	N
ATOM	3564	CA	CYS	I	57	37.678	8.988	76.196	1.00	24.77	I	C
ATOM	3565	C	CYS	I	57	36.192	9.169	75.867	1.00	26.27	I	C
ATOM	3566	O	CYS	I	57	35.354	8.295	76.128	1.00	27.58	I	O
ATOM	3567	CB	CYS	I	57	38.064	7.535	76.040	1.00	24.74	I	C
ATOM	3568	SG	CYS	I	57	38.040	7.007	74.290	1.00	28.66	I	S
ATOM	3569	N	SER	I	58	35.861	10.298	75.257	1.00	22.20	I	N
ATOM	3570	CA	SER	I	58	34.449	10.516	74.948	1.00	18.10	I	C
ATOM	3571	C	SER	I	58	33.950	9.507	73.891	1.00	18.99	I	C
ATOM	3572	O	SER	I	58	32.743	9.210	73.802	1.00	20.20	I	O
ATOM	3573	CB	SER	I	58	34.241	11.957	74.461	1.00	13.59	I	C
ATOM	3574	OG	SER	I	58	35.149	12.274	73.404	1.00	17.58	I	O
ATOM	3575	N	ALA	I	59	34.845	8.928	73.104	1.00	20.43	I	N
ATOM	3576	CA	ALA	I	59	34.351	7.992	72.058	1.00	20.58	I	C
ATOM	3577	C	ALA	I	59	33.723	6.699	72.583	1.00	23.25	I	C
ATOM	3578	O	ALA	I	59	32.944	6.047	71.865	1.00	24.07	I	O
ATOM	3579	CB	ALA	I	59	35.473	7.625	71.108	1.00	17.69	I	C
ATOM	3580	N	ILE	I	60	34.084	6.309	73.804	1.00	25.09	I	N
ATOM	3581	CA	ILE	I	60	33.563	5.064	74.404	1.00	25.81	I	C
ATOM	3582	C	ILE	I	60	32.326	5.257	75.280	1.00	25.44	I	C
ATOM	3583	O	ILE	I	60	31.719	4.292	75.753	1.00	29.14	I	O
ATOM	3584	CB	ILE	I	60	34.693	4.382	75.268	1.00	26.48	I	C
ATOM	3585	CG1	ILE	I	60	34.429	2.873	75.383	1.00	29.24	I	C
ATOM	3586	CG2	ILE	I	60	34.770	5.007	76.682	1.00	27.68	I	C
ATOM	3587	CD1	ILE	I	60	34.788	2.139	74.124	1.00	35.86	I	C
ATOM	3588	N	GLU	I	61	31.916	6.504	75.486	1.00	27.58	I	N
ATOM	3589	CA	GLU	I	61	30.786	6.713	76.376	1.00	28.09	I	C
ATOM	3590	C	GLU	I	61	29.501	6.014	75.949	1.00	23.64	I	C
ATOM	3591	O	GLU	I	61	28.844	5.387	76.747	1.00	22.27	I	O
ATOM	3592	CB	GLU	I	61	30.530	8.216	76.576	1.00	28.67	I	C
ATOM	3593	CG	GLU	I	61	29.647	8.435	77.799	1.00	56.14	I	C
ATOM	3594	CD	GLU	I	61	29.437	9.895	78.121	1.00	79.31	I	C
ATOM	3595	OE1	GLU	I	61	30.453	10.575	78.443	1.00	87.35	I	O

	ATOM	3596	OE2	GLU	I	61	28.268	10.350	78.034	1.00	78.03	I	O
	ATOM	3597	N	LYS	I	62	29.156	6.110	74.675	1.00	22.10	I	N
	ATOM	3598	CA	LYS	I	62	27.941	5.485	74.230	1.00	21.59	I	C
	ATOM	3599	C	LYS	I	62	28.015	3.960	74.460	1.00	22.50	I	C
5	ATOM	3600	O	LYS	I	62	27.049	3.348	74.913	1.00	25.76	I	O
	ATOM	3601	CB	LYS	I	62	27.724	5.788	72.749	1.00	25.19	I	C
	ATOM	3602	CG	LYS	I	62	26.416	5.255	72.179	1.00	23.62	I	C
	ATOM	3603	CD	LYS	I	62	26.218	5.870	70.789	1.00	40.59	I	C
	ATOM	3604	CE	LYS	I	62	25.050	5.242	70.035	1.00	37.34	I	C
10	ATOM	3605	NZ	LYS	I	62	24.805	5.985	68.770	1.00	37.46	I	N
	ATOM	3606	N	THR	I	63	29.154	3.350	74.157	1.00	17.72	I	N
	ATOM	3607	CA	THR	I	63	29.309	1.914	74.390	1.00	16.79	I	C
	ATOM	3608	C	THR	I	63	29.105	1.594	75.880	1.00	19.10	I	C
	ATOM	3609	O	THR	I	63	28.441	0.633	76.237	1.00	18.80	I	O
15	ATOM	3610	CB	THR	I	63	30.702	1.454	73.932	1.00	19.14	I	C
	ATOM	3611	OG1	THR	I	63	30.807	1.607	72.498	1.00	24.84	I	O
	ATOM	3612	CG2	THR	I	63	30.917	-0.029	74.284	1.00	16.77	I	C
	ATOM	3613	N	GLN	I	64	29.666	2.414	76.786	1.00	18.38	I	N
	ATOM	3614	CA	GLN	I	64	29.439	2.123	78.195	1.00	18.26	I	C
20	ATOM	3615	C	GLN	I	64	27.944	2.127	78.570	1.00	17.32	I	C
	ATOM	3616	O	GLN	I	64	27.476	1.301	79.334	1.00	17.63	I	O
	ATOM	3617	CB	GLN	I	64	30.194	3.123	79.104	1.00	14.96	I	C
	ATOM	3618	CG	GLN	I	64	31.712	3.131	78.912	1.00	21.19	I	C
	ATOM	3619	CD	GLN	I	64	32.343	4.307	79.685	1.00	20.97	I	C
25	ATOM	3620	OE1	GLN	I	64	31.656	5.290	79.958	1.00	26.32	I	O
	ATOM	3621	NE2	GLN	I	64	33.617	4.184	80.081	1.00	16.17	I	N
	ATOM	3622	N	ARG	I	65	27.212	3.077	78.002	1.00	16.69	I	N
	ATOM	3623	CA	ARG	I	65	25.802	3.242	78.268	1.00	18.05	I	C
	ATOM	3624	C	ARG	I	65	24.998	2.120	77.653	1.00	20.85	I	C
30	ATOM	3625	O	ARG	I	65	24.035	1.620	78.264	1.00	21.77	I	O
	ATOM	3626	CB	ARG	I	65	25.319	4.587	77.714	1.00	17.49	I	C
	ATOM	3627	CG	ARG	I	65	25.935	5.731	78.482	1.00	27.25	I	C
	ATOM	3628	CD	ARG	I	65	25.514	7.103	77.925	1.00	36.17	I	C
	ATOM	3629	NE	ARG	I	65	26.063	8.153	78.793	1.00	49.27	I	N
35	ATOM	3630	CZ	ARG	I	65	25.587	8.457	79.994	1.00	41.70	I	C
	ATOM	3631	NH1	ARG	I	65	24.542	7.800	80.475	1.00	30.90	I	N
	ATOM	3632	NH2	ARG	I	65	26.170	9.417	80.718	1.00	44.99	I	N
	ATOM	3633	N	MET	I	66	25.390	1.695	76.453	1.00	20.23	I	N
	ATOM	3634	CA	MET	I	66	24.683	0.574	75.849	1.00	16.65	I	C
40	ATOM	3635	C	MET	I	66	24.910	-0.730	76.616	1.00	15.75	I	C
	ATOM	3636	O	MET	I	66	23.998	-1.524	76.829	1.00	17.29	I	O
	ATOM	3637	CB	MET	I	66	25.106	0.430	74.388	1.00	19.30	I	C
	ATOM	3638	CG	MET	I	66	24.557	1.557	73.502	1.00	27.33	I	C
	ATOM	3639	SD	MET	I	66	25.325	1.443	71.840	1.00	24.80	I	S
45	ATOM	3640	CE	MET	I	66	23.846	1.367	70.841	1.00	24.09	I	C
	ATOM	3641	N	LEU	I	67	26.138	-0.951	77.060	1.00	17.99	I	N
	ATOM	3642	CA	LEU	I	67	26.418	-2.129	77.880	1.00	16.87	I	C
	ATOM	3643	C	LEU	I	67	25.658	-2.015	79.226	1.00	16.23	I	C
	ATOM	3644	O	LEU	I	67	25.184	-3.016	79.799	1.00	19.29	I	O
50	ATOM	3645	CB	LEU	I	67	27.947	-2.218	78.136	1.00	18.99	I	C
	ATOM	3646	CG	LEU	I	67	28.755	-2.694	76.907	1.00	18.84	I	C
	ATOM	3647	CD1	LEU	I	67	30.276	-2.561	77.275	1.00	15.28	I	C
	ATOM	3648	CD2	LEU	I	67	28.441	-4.176	76.515	1.00	15.11	I	C
	ATOM	3649	N	SER	I	68	25.525	-0.799	79.745	1.00	13.33	I	N
55	ATOM	3650	CA	SER	I	68	24.777	-0.628	80.994	1.00	16.33	I	C
	ATOM	3651	C	SER	I	68	23.306	-1.021	80.848	1.00	19.31	I	C
	ATOM	3652	O	SER	I	68	22.656	-1.463	81.806	1.00	21.40	I	O
	ATOM	3653	CB	SER	I	68	24.879	0.834	81.481	1.00	15.42	I	C
	ATOM	3654	OG	SER	I	68	26.229	1.168	81.816	1.00	24.18	I	O
60	ATOM	3655	N	GLY	I	69	22.788	-0.863	79.636	1.00	17.78	I	N
	ATOM	3656	CA	GLY	I	69	21.422	-1.229	79.310	1.00	13.18	I	C

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	ATOM	3657	C	GLY	I	69	21.290	-2.746	79.355	1.00	15.71	I	C
	ATOM	3658	O	GLY	I	69	20.279	-3.242	79.800	1.00	14.07	I	O
	ATOM	3659	N	PHE	I	70	22.324	-3.495	78.889	1.00	17.98	I	N
	ATOM	3660	CA	PHE	I	70	22.265	-4.948	78.947	1.00	18.28	I	C
5	ATOM	3661	C	PHE	I	70	22.523	-5.477	80.370	1.00	18.48	I	C
	ATOM	3662	O	PHE	I	70	22.034	-6.564	80.757	1.00	18.81	I	O
	ATOM	3663	CB	PHE	I	70	23.346	-5.574	78.019	1.00	18.99	I	C
	ATOM	3664	CG	PHE	I	70	22.947	-5.624	76.570	1.00	19.17	I	C
	ATOM	3665	CD1	PHE	I	70	23.433	-4.685	75.683	1.00	13.86	I	C
10	ATOM	3666	CD2	PHE	I	70	22.121	-6.634	76.115	1.00	14.02	I	C
	ATOM	3667	CE1	PHE	I	70	23.086	-4.746	74.297	1.00	15.78	I	C
	ATOM	3668	CE2	PHE	I	70	21.757	-6.719	74.732	1.00	21.48	I	C
	ATOM	3669	CZ	PHE	I	70	22.244	-5.766	73.841	1.00	19.98	I	C
	ATOM	3670	N	CYS	I	71	23.299	-4.720	81.159	1.00	15.72	I	N
15	ATOM	3671	CA	CYS	I	71	23.613	-5.186	82.511	1.00	19.25	I	C
	ATOM	3672	C	CYS	I	71	23.288	-4.039	83.511	1.00	19.54	I	C
	ATOM	3673	O	CYS	I	71	24.209	-3.472	84.088	1.00	17.72	I	O
	ATOM	3674	CB	CYS	I	71	25.118	-5.443	82.612	1.00	17.63	I	C
	ATOM	3675	SG	CYS	I	71	25.681	-5.978	84.268	1.00	22.27	I	S
20	ATOM	3676	N	PRO	I	72	22.004	-3.667	83.656	1.00	20.43	I	N
	ATOM	3677	CA	PRO	I	72	21.615	-2.570	84.563	1.00	20.56	I	C
	ATOM	3678	C	PRO	I	72	21.849	-2.796	86.063	1.00	18.35	I	C
	ATOM	3679	O	PRO	I	72	22.041	-1.806	86.804	1.00	18.45	I	O
	ATOM	3680	CB	PRO	I	72	20.124	-2.345	84.201	1.00	20.03	I	C
25	ATOM	3681	CG	PRO	I	72	19.660	-3.743	83.874	1.00	22.09	I	C
	ATOM	3682	CD	PRO	I	72	20.825	-4.260	83.006	1.00	22.41	I	C
	ATOM	3683	N	HIS	I	73	21.844	-4.066	86.502	1.00	19.47	I	N
	ATOM	3684	CA	HIS	I	73	22.089	-4.412	87.888	1.00	19.66	I	C
	ATOM	3685	C	HIS	I	73	23.381	-5.238	87.946	1.00	21.68	I	C
30	ATOM	3686	O	HIS	I	73	23.562	-6.213	87.207	1.00	25.46	I	O
	ATOM	3687	CB	HIS	I	73	20.900	-5.199	88.485	1.00	20.83	I	C
	ATOM	3688	CG	HIS	I	73	19.672	-4.351	88.703	1.00	22.23	I	C
	ATOM	3689	ND1	HIS	I	73	19.304	-3.876	89.943	1.00	16.76	I	N
	ATOM	3690	CD2	HIS	I	73	18.770	-3.846	87.820	1.00	24.20	I	C
35	ATOM	3691	CE1	HIS	I	73	18.222	-3.109	89.811	1.00	16.41	I	C
	ATOM	3692	NE2	HIS	I	73	17.878	-3.082	88.540	1.00	15.39	I	N
	ATOM	3693	N	LYS	I	74	24.275	-4.823	88.824	1.00	21.95	I	N
	ATOM	3694	CA	LYS	I	74	25.558	-5.460	88.935	1.00	21.35	I	C
	ATOM	3695	C	LYS	I	74	25.414	-6.919	89.274	1.00	23.89	I	C
40	ATOM	3696	O	LYS	I	74	24.528	-7.310	90.044	1.00	22.28	I	O
	ATOM	3697	CB	LYS	I	74	26.406	-4.771	90.030	1.00	22.82	I	C
	ATOM	3698	CG	LYS	I	74	27.911	-5.064	89.908	1.00	21.50	I	C
	ATOM	3699	CD	LYS	I	74	28.751	-4.501	91.096	1.00	16.86	I	C
	ATOM	3700	CE	LYS	I	74	28.597	-5.307	92.383	1.00	15.58	I	C
45	ATOM	3701	NZ	LYS	I	74	29.438	-4.661	93.459	1.00	28.77	I	N
	ATOM	3702	N	VAL	I	75	26.291	-7.728	88.692	1.00	30.24	I	N
	ATOM	3703	CA	VAL	I	75	26.315	-9.147	88.987	1.00	32.25	I	C
	ATOM	3704	C	VAL	I	75	27.653	-9.491	89.629	1.00	33.25	I	C
	ATOM	3705	O	VAL	I	75	28.590	-8.668	89.633	1.00	36.67	I	O
50	ATOM	3706	CB	VAL	I	75	26.106	-9.983	87.715	1.00	31.71	I	C
	ATOM	3707	CG1	VAL	I	75	24.737	-9.626	87.122	1.00	30.96	I	C
	ATOM	3708	CG2	VAL	I	75	27.251	-9.701	86.667	1.00	37.27	I	C
	ATOM	3709	N	SER	I	76	27.742	-10.679	90.227	1.00	38.75	I	N
	ATOM	3710	CA	SER	I	76	29.010	-11.098	90.839	1.00	43.38	I	C
55	ATOM	3711	C	SER	I	76	30.110	-11.307	89.793	1.00	45.20	I	C
	ATOM	3712	O	SER	I	76	29.926	-12.056	88.832	1.00	41.71	I	O
	ATOM	3713	CB	SER	I	76	28.846	-12.402	91.626	1.00	45.35	I	C
	ATOM	3714	OG	SER	I	76	30.126	-12.787	92.120	1.00	51.24	I	O
	ATOM	3715	N	ALA	I	77	31.254	-10.652	89.982	1.00	49.67	I	N
60	ATOM	3716	CA	ALA	I	77	32.375	-10.766	89.048	1.00	54.47	I	C
	ATOM	3717	C	ALA	I	77	32.943	-12.175	89.034	1.00	57.42	I	C

	ATOM	3718	O	ALA	I	77	33.412	-12.653	88.003	1.00	59.50	I	O
	ATOM	3719	CB	ALA	I	77	33.478	-9.766	89.414	1.00	51.64	I	C
	ATOM	3720	N	GLY	I	78	32.895	-12.843	90.179	1.00	60.13	I	N
	ATOM	3721	CA	GLY	I	78	33.412	-14.198	90.239	1.00	62.69	I	C
5	ATOM	3722	C	GLY	I	78	34.882	-14.206	89.849	1.00	63.55	I	C
	ATOM	3723	O	GLY	I	78	35.563	-13.090	90.291	1.00	63.76	I	O
	ATOM	3724	N	SER	I	81	39.947	-16.327	92.121	1.00	67.81	I	N
	ATOM	3725	CA	SER	I	81	41.293	-16.933	92.348	1.00	65.14	I	C
	ATOM	3726	C	SER	I	81	42.348	-16.541	91.309	1.00	61.18	I	C
10	ATOM	3727	O	SER	I	81	43.501	-16.954	91.421	1.00	60.41	I	O
	ATOM	3728	CB	SER	I	81	41.172	-18.457	92.368	1.00	65.70	I	C
	ATOM	3729	OG	SER	I	81	40.423	-18.891	93.492	1.00	69.36	I	O
	ATOM	3730	N	SER	I	82	41.956	-15.751	90.310	1.00	56.70	I	N
	ATOM	3731	CA	SER	I	82	42.867	-15.344	89.249	1.00	51.54	I	C
15	ATOM	3732	C	SER	I	82	43.685	-14.090	89.610	1.00	47.03	I	C
	ATOM	3733	O	SER	I	82	43.155	-12.987	89.727	1.00	44.40	I	O
	ATOM	3734	CB	SER	I	82	42.067	-15.117	87.966	1.00	52.88	I	C
	ATOM	3735	OG	SER	I	82	42.944	-14.947	86.868	1.00	62.13	I	O
	ATOM	3736	N	LEU	I	83	44.992	-14.262	89.782	1.00	40.85	I	N
20	ATOM	3737	CA	LEU	I	83	45.839	-13.152	90.182	1.00	33.26	I	C
	ATOM	3738	C	LEU	I	83	45.835	-11.917	89.264	1.00	32.94	I	C
	ATOM	3739	O	LEU	I	83	45.828	-10.799	89.748	1.00	30.66	I	O
	ATOM	3740	CB	LEU	I	83	47.287	-13.614	90.310	1.00	29.35	I	C
	ATOM	3741	CG	LEU	I	83	48.279	-12.574	90.838	1.00	27.09	I	C
25	ATOM	3742	CD1	LEU	I	83	47.939	-12.173	92.295	1.00	12.16	I	C
	ATOM	3743	CD2	LEU	I	83	49.691	-13.159	90.750	1.00	24.42	I	C
	ATOM	3744	N	HIS	I	84	45.872	-12.145	87.957	1.00	29.82	I	N
	ATOM	3745	CA	HIS	I	84	45.974	-11.040	86.983	1.00	29.54	I	C
	ATOM	3746	C	HIS	I	84	44.628	-10.553	86.425	1.00	29.73	I	C
30	ATOM	3747	O	HIS	I	84	44.592	-9.730	85.525	1.00	25.19	I	O
	ATOM	3748	CB	HIS	I	84	46.850	-11.516	85.820	1.00	26.32	I	C
	ATOM	3749	CG	HIS	I	84	48.157	-12.110	86.250	1.00	28.45	I	C
	ATOM	3750	ND1	HIS	I	84	49.148	-11.364	86.849	1.00	29.88	I	N
	ATOM	3751	CD2	HIS	I	84	48.635	-13.377	86.169	1.00	24.74	I	C
35	ATOM	3752	CE1	HIS	I	84	50.180	-12.144	87.123	1.00	30.46	I	C
	ATOM	3753	NE2	HIS	I	84	49.894	-13.372	86.721	1.00	21.40	I	N
	ATOM	3754	N	VAL	I	85	43.536	-11.067	86.978	1.00	32.07	I	N
	ATOM	3755	CA	VAL	I	85	42.202	-10.744	86.471	1.00	32.06	I	C
	ATOM	3756	C	VAL	I	85	41.928	-9.272	86.189	1.00	33.84	I	C
40	ATOM	3757	O	VAL	I	85	41.269	-8.945	85.194	1.00	36.05	I	O
	ATOM	3758	CB	VAL	I	85	41.112	-11.325	87.405	1.00	33.38	I	C
	ATOM	3759	CG1	VAL	I	85	41.122	-10.639	88.753	1.00	27.19	I	C
	ATOM	3760	CG2	VAL	I	85	39.765	-11.211	86.751	1.00	37.69	I	C
	ATOM	3761	N	ARG	I	86	42.424	-8.378	87.022	1.00	32.54	I	N
45	ATOM	3762	CA	ARG	I	86	42.181	-6.974	86.794	1.00	31.61	I	C
	ATOM	3763	C	ARG	I	86	43.401	-6.217	86.290	1.00	31.91	I	C
	ATOM	3764	O	ARG	I	86	43.435	-4.977	86.319	1.00	35.23	I	O
	ATOM	3765	CB	ARG	I	86	41.586	-6.355	88.074	1.00	28.40	I	C
	ATOM	3766	CG	ARG	I	86	40.089	-6.712	88.217	1.00	41.94	I	C
50	ATOM	3767	CD	ARG	I	86	39.461	-6.267	89.534	1.00	46.77	I	C
	ATOM	3768	NE	ARG	I	86	39.546	-7.320	90.565	1.00	63.98	I	N
	ATOM	3769	CZ	ARG	I	86	38.731	-8.386	90.654	1.00	66.04	I	C
	ATOM	3770	NH1	ARG	I	86	37.746	-8.587	89.784	1.00	52.07	I	N
	ATOM	3771	NH2	ARG	I	86	38.896	-9.253	91.647	1.00	62.26	I	N
55	ATOM	3772	N	ASP	I	87	44.409	-6.944	85.790	1.00	30.34	I	N
	ATOM	3773	CA	ASP	I	87	45.582	-6.265	85.271	1.00	32.40	I	C
	ATOM	3774	C	ASP	I	87	45.118	-5.630	83.964	1.00	31.30	I	C
	ATOM	3775	O	ASP	I	87	44.441	-6.299	83.192	1.00	30.02	I	O
	ATOM	3776	CB	ASP	I	87	46.690	-7.243	84.879	1.00	34.02	I	C
60	ATOM	3777	CG	ASP	I	87	47.463	-7.838	86.086	1.00	38.19	I	C
	ATOM	3778	OD1	ASP	I	87	47.145	-7.582	87.260	1.00	32.90	I	O

	ATOM	3779	OD2	ASP	I	87	48.406	-8.554	85.741	1.00	32.57	I	O
	ATOM	3780	N	THR	I	88	45.516	-4.392	83.687	1.00	30.86	I	N
	ATOM	3781	CA	THR	I	88	45.063	-3.748	82.443	1.00	31.20	I	C
	ATOM	3782	C	THR	I	88	46.075	-3.950	81.321	1.00	31.74	I	C
5	ATOM	3783	O	THR	I	88	46.942	-3.091	81.058	1.00	33.75	I	O
	ATOM	3784	CB	THR	I	88	44.822	-2.258	82.703	1.00	29.81	I	C
	ATOM	3785	OG1	THR	I	88	46.027	-1.671	83.179	1.00	36.54	I	O
	ATOM	3786	CG2	THR	I	88	43.767	-2.090	83.782	1.00	24.42	I	C
	ATOM	3787	N	ALA	I	89	45.968	-5.085	80.639	1.00	31.60	I	N
10	ATOM	3788	CA	ALA	I	89	46.955	-5.362	79.608	1.00	30.00	I	C
	ATOM	3789	C	ALA	I	89	46.448	-5.308	78.192	1.00	29.68	I	C
	ATOM	3790	O	ALA	I	89	47.205	-5.591	77.282	1.00	32.56	I	O
	ATOM	3791	CB	ALA	I	89	47.564	-6.708	79.859	1.00	35.66	I	C
	ATOM	3792	N	ILE	I	90	45.203	-4.897	77.975	1.00	26.67	I	N
15	ATOM	3793	CA	ILE	I	90	44.675	-4.930	76.618	1.00	21.52	I	C
	ATOM	3794	C	ILE	I	90	44.399	-3.493	76.191	1.00	20.02	I	C
	ATOM	3795	O	ILE	I	90	43.796	-2.739	76.949	1.00	18.80	I	O
	ATOM	3796	CB	ILE	I	90	43.309	-5.690	76.590	1.00	22.56	I	C
	ATOM	3797	CG1	ILE	I	90	43.439	-7.060	77.251	1.00	27.82	I	C
20	ATOM	3798	CG2	ILE	I	90	42.780	-5.835	75.178	1.00	20.25	I	C
	ATOM	3799	CD1	ILE	I	90	44.554	-7.915	76.695	1.00	23.97	I	C
	ATOM	3800	N	GLU	I	91	44.802	-3.115	74.992	1.00	22.48	I	N
	ATOM	3801	CA	GLU	I	91	44.501	-1.768	74.513	1.00	25.02	I	C
	ATOM	3802	C	GLU	I	91	42.983	-1.709	74.241	1.00	25.25	I	C
25	ATOM	3803	O	GLU	I	91	42.369	-2.675	73.785	1.00	24.40	I	O
	ATOM	3804	CB	GLU	I	91	45.255	-1.470	73.201	1.00	26.65	I	C
	ATOM	3805	CG	GLU	I	91	46.761	-1.457	73.383	1.00	43.52	I	C
	ATOM	3806	CD	GLU	I	91	47.501	-1.542	72.054	1.00	66.85	I	C
	ATOM	3807	OE1	GLU	I	91	48.725	-1.840	72.074	1.00	71.43	I	O
30	ATOM	3808	OE2	GLU	I	91	46.853	-1.312	70.997	1.00	76.33	I	O
	ATOM	3809	N	VAL	I	92	42.374	-0.559	74.508	1.00	20.39	I	N
	ATOM	3810	CA	VAL	I	92	40.939	-0.475	74.300	1.00	22.52	I	C
	ATOM	3811	C	VAL	I	92	40.523	-0.874	72.888	1.00	24.09	I	C
	ATOM	3812	O	VAL	I	92	39.571	-1.603	72.701	1.00	22.60	I	O
35	ATOM	3813	CB	VAL	I	92	40.428	0.925	74.574	1.00	24.93	I	C
	ATOM	3814	CG1	VAL	I	92	38.923	0.968	74.198	1.00	23.93	I	C
	ATOM	3815	CG2	VAL	I	92	40.622	1.268	76.076	1.00	29.40	I	C
	ATOM	3816	N	ALA	I	93	41.241	-0.393	71.889	1.00	23.14	I	N
	ATOM	3817	CA	ALA	I	93	40.901	-0.747	70.521	1.00	20.90	I	C
40	ATOM	3818	C	ALA	I	93	40.853	-2.249	70.320	1.00	21.97	I	C
	ATOM	3819	O	ALA	I	93	39.949	-2.781	69.631	1.00	22.74	I	O
	ATOM	3820	CB	ALA	I	93	41.903	-0.116	69.561	1.00	17.96	I	C
	ATOM	3821	N	ALA	I	94	41.832	-2.953	70.883	1.00	20.31	I	N
	ATOM	3822	CA	ALA	I	94	41.883	-4.420	70.728	1.00	22.41	I	C
45	ATOM	3823	C	ALA	I	94	40.764	-5.113	71.484	1.00	21.47	I	C
	ATOM	3824	O	ALA	I	94	40.140	-6.098	70.998	1.00	21.82	I	O
	ATOM	3825	CB	ALA	I	94	43.276	-4.974	71.187	1.00	23.67	I	C
	ATOM	3826	N	PHE	I	95	40.483	-4.584	72.672	1.00	19.72	I	N
	ATOM	3827	CA	PHE	I	95	39.426	-5.132	73.479	1.00	19.20	I	C
50	ATOM	3828	C	PHE	I	95	38.072	-5.000	72.750	1.00	20.71	I	C
	ATOM	3829	O	PHE	I	95	37.284	-5.941	72.715	1.00	18.83	I	O
	ATOM	3830	CB	PHE	I	95	39.352	-4.371	74.805	1.00	17.19	I	C
	ATOM	3831	CG	PHE	I	95	38.253	-4.836	75.695	1.00	18.73	I	C
	ATOM	3832	CD1	PHE	I	95	38.509	-5.739	76.707	1.00	19.09	I	C
55	ATOM	3833	CD2	PHE	I	95	36.939	-4.365	75.517	1.00	28.45	I	C
	ATOM	3834	CE1	PHE	I	95	37.475	-6.189	77.554	1.00	24.24	I	C
	ATOM	3835	CE2	PHE	I	95	35.914	-4.798	76.346	1.00	28.64	I	C
	ATOM	3836	CZ	PHE	I	95	36.172	-5.706	77.360	1.00	28.20	I	C
	ATOM	3837	N	VAL	I	96	37.814	-3.817	72.186	1.00	21.23	I	N
60	ATOM	3838	CA	VAL	I	96	36.534	-3.564	71.499	1.00	22.02	I	C
	ATOM	3839	C	VAL	I	96	36.412	-4.391	70.191	1.00	22.65	I	C

	ATOM	3840	O	VAL	I	96	35.358	-4.954	69.862	1.00	22.48	I	O
	ATOM	3841	CB	VAL	I	96	36.354	-2.048	71.208	1.00	22.55	I	C
	ATOM	3842	CG1	VAL	I	96	35.086	-1.833	70.313	1.00	18.24	I	C
	ATOM	3843	CG2	VAL	I	96	36.164	-1.327	72.526	1.00	23.04	I	C
5	ATOM	3844	N	ALA	I	97	37.506	-4.495	69.452	1.00	25.04	I	N
	ATOM	3845	CA	ALA	I	97	37.467	-5.306	68.235	1.00	26.44	I	C
	ATOM	3846	C	ALA	I	97	37.132	-6.762	68.567	1.00	22.96	I	C
	ATOM	3847	O	ALA	I	97	36.353	-7.388	67.886	1.00	24.45	I	O
	ATOM	3848	CB	ALA	I	97	38.807	-5.233	67.515	1.00	31.87	I	C
10	ATOM	3849	N	ASP	I	98	37.709	-7.303	69.627	1.00	23.71	I	N
	ATOM	3850	CA	ASP	I	98	37.425	-8.696	70.050	1.00	23.00	I	C
	ATOM	3851	C	ASP	I	98	35.979	-8.812	70.558	1.00	24.40	I	C
	ATOM	3852	O	ASP	I	98	35.283	-9.795	70.294	1.00	24.30	I	O
	ATOM	3853	CB	ASP	I	98	38.382	-9.092	71.180	1.00	19.69	I	C
15	ATOM	3854	CG	ASP	I	98	38.094	-10.465	71.749	1.00	23.36	I	C
	ATOM	3855	OD1	ASP	I	98	38.602	-11.503	71.271	1.00	32.56	I	O
	ATOM	3856	OD2	ASP	I	98	37.296	-10.496	72.778	1.00	25.79	I	O
	ATOM	3857	N	LEU	I	99	35.540	-7.819	71.338	1.00	25.64	I	N
	ATOM	3858	CA	LEU	I	99	34.158	-7.857	71.849	1.00	23.64	I	C
20	ATOM	3859	C	LEU	I	99	33.254	-7.921	70.611	1.00	26.34	I	C
	ATOM	3860	O	LEU	I	99	32.302	-8.681	70.575	1.00	21.05	I	O
	ATOM	3861	CB	LEU	I	99	33.832	-6.556	72.655	1.00	26.66	I	C
	ATOM	3862	CG	LEU	I	99	32.389	-6.402	73.163	1.00	20.95	I	C
	ATOM	3863	CD1	LEU	I	99	31.978	-7.628	73.981	1.00	13.88	I	C
25	ATOM	3864	CD2	LEU	I	99	32.325	-5.070	73.966	1.00	24.83	I	C
	ATOM	3865	N	LEU	I	100	33.545	-7.065	69.628	1.00	25.95	I	N
	ATOM	3866	CA	LEU	I	100	32.711	-6.993	68.426	1.00	28.26	I	C
	ATOM	3867	C	LEU	I	100	32.627	-8.366	67.732	1.00	29.60	I	C
	ATOM	3868	O	LEU	I	100	31.560	-8.810	67.305	1.00	29.23	I	O
30	ATOM	3869	CB	LEU	I	100	33.273	-5.928	67.452	1.00	30.11	I	C
	ATOM	3870	CG	LEU	I	100	32.650	-5.886	66.044	1.00	27.15	I	C
	ATOM	3871	CD1	LEU	I	100	31.135	-5.727	66.148	1.00	31.05	I	C
	ATOM	3872	CD2	LEU	I	100	33.281	-4.740	65.254	1.00	26.52	I	C
	ATOM	3873	N	LEU	I	101	33.745	-9.063	67.675	1.00	29.37	I	N
35	ATOM	3874	CA	LEU	I	101	33.759	-10.388	67.038	1.00	29.29	I	C
	ATOM	3875	C	LEU	I	101	32.817	-11.370	67.738	1.00	27.17	I	C
	ATOM	3876	O	LEU	I	101	32.059	-12.118	67.095	1.00	28.05	I	O
	ATOM	3877	CB	LEU	I	101	35.207	-10.893	67.069	1.00	28.28	I	C
	ATOM	3878	CG	LEU	I	101	35.600	-12.250	66.508	1.00	32.38	I	C
40	ATOM	3879	CD1	LEU	I	101	37.152	-12.263	66.541	1.00	49.76	I	C
	ATOM	3880	CD2	LEU	I	101	35.018	-13.410	67.313	1.00	35.45	I	C
	ATOM	3881	N	HIS	I	102	32.870	-11.373	69.071	1.00	26.61	I	N
	ATOM	3882	CA	HIS	I	102	32.034	-12.251	69.877	1.00	27.47	I	C
	ATOM	3883	C	HIS	I	102	30.583	-11.798	69.756	1.00	29.67	I	C
45	ATOM	3884	O	HIS	I	102	29.681	-12.633	69.610	1.00	31.47	I	O
	ATOM	3885	CB	HIS	I	102	32.512	-12.240	71.343	1.00	24.82	I	C
	ATOM	3886	CG	HIS	I	102	33.836	-12.910	71.517	1.00	31.90	I	C
	ATOM	3887	ND1	HIS	I	102	34.018	-14.251	71.250	1.00	35.56	I	N
	ATOM	3888	CD2	HIS	I	102	35.057	-12.422	71.843	1.00	30.43	I	C
50	ATOM	3889	CE1	HIS	I	102	35.291	-14.560	71.396	1.00	33.85	I	C
	ATOM	3890	NE2	HIS	I	102	35.943	-13.472	71.756	1.00	40.02	I	N
	ATOM	3891	N	LEU	I	103	30.337	-10.488	69.801	1.00	25.34	I	N
	ATOM	3892	CA	LEU	I	103	28.934	-10.065	69.640	1.00	23.49	I	C
	ATOM	3893	C	LEU	I	103	28.346	-10.471	68.259	1.00	25.13	I	C
55	ATOM	3894	O	LEU	I	103	27.187	-10.905	68.172	1.00	25.31	I	O
	ATOM	3895	CB	LEU	I	103	28.767	-8.550	69.831	1.00	21.97	I	C
	ATOM	3896	CG	LEU	I	103	29.020	-8.116	71.296	1.00	26.35	I	C
	ATOM	3897	CD1	LEU	I	103	28.850	-6.663	71.451	1.00	19.33	I	C
	ATOM	3898	CD2	LEU	I	103	28.028	-8.793	72.252	1.00	16.98	I	C
60	ATOM	3899	N	LYS	I	104	29.139	-10.363	67.198	1.00	24.74	I	N
	ATOM	3900	CA	LYS	I	104	28.632	-10.737	65.869	1.00	26.53	I	C

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ATOM   3901  C   LYS I 104      28.329 -12.220  65.811  1.00 27.50      I    C
ATOM   3902  O   LYS I 104      27.366 -12.627  65.208  1.00 28.46      I    O
ATOM   3903  CB  LYS I 104      29.625 -10.357  64.783  1.00 22.88      I    C
ATOM   3904  CG  LYS I 104      29.587  -8.914  64.413  1.00 31.89      I    C
ATOM   3905  CD  LYS I 104      30.631  -8.717  63.344  1.00 32.33      I    C
ATOM   3906  CE  LYS I 104      30.925  -7.279  63.115  1.00 59.68      I    C
ATOM   3907  NZ  LYS I 104      32.076  -7.164  62.142  1.00 68.07      I    N
ATOM   3908  N   ALA I 105      29.133 -13.023  66.479  1.00 29.46      I    N
ATOM   3909  CA  ALA I 105      28.882 -14.450  66.534  1.00 34.23      I    C
ATOM   3910  C   ALA I 105      27.563 -14.703  67.275  1.00 37.21      I    C
ATOM   3911  O   ALA I 105      26.663 -15.418  66.770  1.00 39.76      I    O
ATOM   3912  CB  ALA I 105      30.064 -15.163  67.232  1.00 32.11      I    C
ATOM   3913  N   LEU I 106      27.411 -14.122  68.470  1.00 39.89      I    N
ATOM   3914  CA  LEU I 106      26.165 -14.309  69.230  1.00 38.09      I    C
ATOM   3915  C   LEU I 106      24.938 -13.890  68.408  1.00 37.88      I    C
ATOM   3916  O   LEU I 106      23.913 -14.550  68.431  1.00 33.66      I    O
ATOM   3917  CB  LEU I 106      26.194 -13.477  70.530  1.00 36.52      I    C
ATOM   3918  CG  LEU I 106      24.863 -13.456  71.276  1.00 42.06      I    C
ATOM   3919  CD1 LEU I 106      24.583 -14.853  71.860  1.00 38.67      I    C
ATOM   3920  CD2 LEU I 106      24.917 -12.412  72.412  1.00 45.46      I    C
ATOM   3921  N   PHE I 107      25.064 -12.790  67.683  1.00 38.60      I    N
ATOM   3922  CA  PHE I 107      23.973 -12.279  66.867  1.00 40.37      I    C
ATOM   3923  C   PHE I 107      23.618 -13.276  65.764  1.00 43.78      I    C
ATOM   3924  O   PHE I 107      22.436 -13.549  65.529  1.00 44.25      I    O
ATOM   3925  CB  PHE I 107      24.365 -10.956  66.236  1.00 37.22      I    C
ATOM   3926  CG  PHE I 107      23.271 -10.311  65.429  1.00 36.27      I    C
ATOM   3927  CD1 PHE I 107      22.198  -9.699  66.048  1.00 46.75      I    C
ATOM   3928  CD2 PHE I 107      23.322 -10.317  64.052  1.00 36.68      I    C
ATOM   3929  CE1 PHE I 107      21.186  -9.098  65.296  1.00 35.59      I    C
ATOM   3930  CE2 PHE I 107      22.320  -9.717  63.299  1.00 47.17      I    C
ATOM   3931  CZ  PHE I 107      21.253  -9.109  63.923  1.00 39.35      I    C
ATOM   3932  N   ALA I 108      24.638 -13.786  65.075  1.00 46.11      I    N
ATOM   3933  CA  ALA I 108      24.403 -14.758  63.993  1.00 52.09      I    C
ATOM   3934  C   ALA I 108      23.766 -16.034  64.566  1.00 55.44      I    C
ATOM   3935  O   ALA I 108      22.779 -16.540  64.031  1.00 56.71      I    O
ATOM   3936  CB  ALA I 108      25.730 -15.076  63.280  1.00 51.31      I    C
ATOM   3937  N   ALA I 109      24.327 -16.543  65.659  1.00 58.75      I    N
ATOM   3938  CA  ALA I 109      23.816 -17.732  66.338  1.00 63.42      I    C
ATOM   3939  C   ALA I 109      22.418 -17.549  66.929  1.00 66.89      I    C
ATOM   3940  O   ALA I 109      21.743 -16.521  66.672  1.00 69.76      I    O
ATOM   3941  CB  ALA I 109      24.791 -18.097  67.470  1.00 63.21      I    C
ATOM   3942  OXT ALA I 109      22.003 -18.464  67.674  1.00 70.12      I    O
TER    3943       ALA I 109
ATOM   3944  O4  OAC S   1      18.217  22.918  90.161  1.00 51.17      S    O
ATOM   3945  C2  OAC S   1      17.505  21.950  89.542  1.00 51.08      S    C
ATOM   3946  O3  OAC S   1      16.384  21.569  89.864  1.00 56.88      S    O
ATOM   3947  C1  OAC S   1      18.305  21.429  88.360  1.00 58.69      S    C
TER    3948       OAC S   1
ATOM   3949 ZN   ZN  Z   1      26.522  -6.968 101.166  1.00 26.39      Z   ZN
ATOM   3950 ZN   ZN  Z   2      49.447  -9.432  87.331  1.00 25.80      Z   ZN
ATOM   3951 ZN   ZN  Z   3      20.593   0.777  63.988  1.00 77.99      Z   ZN
TER    3952       ZN  Z   3
ATOM   3953  O   HOH W   1      28.273  11.562  96.929  1.00  8.42      W    O
ATOM   3954  O   HOH W   3      23.494  -3.183  91.025  1.00 12.22      W    O
ATOM   3955  O   HOH W   5      30.637  16.714  92.029  1.00  4.14      W    O
ATOM   3956  O   HOH W   6      13.096   6.849 100.854  1.00 17.39      W    O
ATOM   3957  O   HOH W   7      -8.093  23.904 105.322  1.00 11.23      W    O
ATOM   3958  O   HOH W   8      18.329  15.295  86.054  1.00 13.20      W    O
ATOM   3959  O   HOH W   9      11.643  17.561  91.629  1.00 19.27      W    O
ATOM   3960  O   HOH W  10      24.508  31.519 109.138  1.00 13.78      W    O
ATOM   3961  O   HOH W  11      23.563   9.514  84.581  1.00 11.36      W    O
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	ATOM	3962	O	HOH W	12	14.310	0.426	97.254	1.00	21.71	W	O
	ATOM	3963	O	HOH W	13	38.621	-9.471	76.511	1.00	7.65	W	O
	ATOM	3964	O	HOH W	14	28.271	-6.451	86.834	1.00	19.05	W	O
	ATOM	3965	O	HOH W	16	3.235	26.147	105.955	1.00	24.84	W	O
5	ATOM	3966	O	HOH W	17	16.160	10.823	106.546	1.00	33.75	W	O
	ATOM	3967	O	HOH W	18	27.918	32.988	106.240	1.00	17.97	W	O
	ATOM	3968	O	HOH W	19	12.758	29.187	98.874	1.00	14.92	W	O
	ATOM	3969	O	HOH W	20	25.445	20.063	84.133	1.00	21.98	W	O
	ATOM	3970	O	HOH W	21	17.622	32.548	94.823	1.00	13.51	W	O
10	ATOM	3971	O	HOH W	22	28.770	22.300	95.542	1.00	20.26	W	O
	ATOM	3972	O	HOH W	23	20.037	1.543	80.170	1.00	20.36	W	O
	ATOM	3973	O	HOH W	24	25.817	0.831	84.674	1.00	25.39	W	O
	ATOM	3974	O	HOH W	25	30.387	-7.369	88.168	1.00	30.75	W	O
	ATOM	3975	O	HOH W	26	30.611	21.516	90.986	1.00	24.22	W	O
15	ATOM	3976	O	HOH W	27	16.026	30.411	92.826	1.00	29.13	W	O
	ATOM	3977	O	HOH W	28	39.586	-2.015	82.847	1.00	20.63	W	O
	ATOM	3978	O	HOH W	29	22.165	-7.013	84.963	1.00	21.19	W	O
	ATOM	3979	O	HOH W	30	21.834	-1.471	72.582	1.00	22.31	W	O
	ATOM	3980	O	HOH W	31	14.563	2.175	99.373	1.00	24.90	W	O
20	ATOM	3981	O	HOH W	32	3.923	30.530	100.919	1.00	21.71	W	O
	ATOM	3982	O	HOH W	33	-4.724	35.239	102.749	1.00	21.70	W	O
	ATOM	3983	O	HOH W	34	17.795	2.775	103.123	1.00	25.57	W	O
	ATOM	3984	O	HOH W	35	18.316	34.220	103.279	1.00	17.83	W	O
	ATOM	3985	O	HOH W	36	21.588	-1.766	75.413	1.00	15.19	W	O
25	ATOM	3986	O	HOH W	37	4.529	27.870	100.348	1.00	23.18	W	O
	ATOM	3987	O	HOH W	38	4.257	28.013	97.680	1.00	34.26	W	O
	ATOM	3988	O	HOH W	39	35.051	-2.423	87.326	1.00	28.36	W	O
	ATOM	3989	O	HOH W	40	20.594	-3.706	99.423	1.00	26.79	W	O
	ATOM	3990	O	HOH W	41	41.265	0.306	82.711	1.00	28.82	W	O
30	ATOM	3991	O	HOH W	42	21.119	35.325	107.301	1.00	15.65	W	O
	ATOM	3992	O	HOH W	43	35.412	-7.469	83.691	1.00	23.60	W	O
	ATOM	3993	O	HOH W	44	19.036	13.571	83.635	1.00	34.03	W	O
	ATOM	3994	O	HOH W	45	23.461	35.887	100.291	1.00	26.02	W	O
	ATOM	3995	O	HOH W	46	23.701	-4.144	105.686	1.00	31.69	W	O
35	ATOM	3996	O	HOH W	47	12.582	4.601	70.291	1.00	32.84	W	O
	ATOM	3997	O	HOH W	48	32.825	7.152	92.066	1.00	30.03	W	O
	ATOM	3998	O	HOH W	50	16.651	4.316	105.552	1.00	17.39	W	O
	ATOM	3999	O	HOH W	51	9.812	25.145	115.275	1.00	28.34	W	O
	ATOM	4000	O	HOH W	52	40.139	-11.529	69.044	1.00	21.03	W	O
40	ATOM	4001	O	HOH W	53	27.250	33.402	98.412	1.00	26.19	W	O
	ATOM	4002	O	HOH W	54	-6.410	20.233	102.747	1.00	32.23	W	O
	ATOM	4003	O	HOH W	55	25.539	22.652	105.834	1.00	40.60	W	O
	ATOM	4004	O	HOH W	56	-3.623	39.874	107.173	1.00	43.07	W	O
	ATOM	4005	O	HOH W	57	30.894	4.390	71.988	1.00	32.39	W	O
45	ATOM	4006	O	HOH W	58	22.406	3.311	79.796	1.00	19.82	W	O
	ATOM	4007	O	HOH W	59	34.129	6.169	87.418	1.00	33.67	W	O
	ATOM	4008	O	HOH W	60	-3.318	35.590	100.547	1.00	28.53	W	O
	ATOM	4009	O	HOH W	61	23.032	-6.709	102.637	1.00	35.35	W	O
	ATOM	4010	O	HOH W	62	-10.710	38.525	105.096	1.00	21.21	W	O
50	ATOM	4011	O	HOH W	63	17.542	8.543	106.106	1.00	28.80	W	O
	ATOM	4012	O	HOH W	64	2.489	33.089	97.944	1.00	22.39	W	O
	ATOM	4013	O	HOH W	65	30.074	17.145	98.763	1.00	17.05	W	O
	ATOM	4014	O	HOH W	66	-16.374	28.372	102.556	1.00	24.41	W	O
	ATOM	4015	O	HOH W	67	9.528	23.065	103.276	1.00	39.55	W	O
55	ATOM	4016	O	HOH W	68	23.360	-5.629	91.918	1.00	29.13	W	O
	ATOM	4017	O	HOH W	69	10.550	28.053	110.107	1.00	18.71	W	O
	ATOM	4018	O	HOH W	70	-2.937	25.921	114.654	1.00	30.39	W	O
	ATOM	4019	O	HOH W	71	-16.268	35.216	117.114	1.00	36.27	W	O
	ATOM	4020	O	HOH W	72	23.240	-7.692	94.601	1.00	41.50	W	O
60	ATOM	4021	O	HOH W	73	28.558	29.902	99.941	1.00	37.38	W	O
	ATOM	4022	O	HOH W	74	-15.000	6.861	100.111	1.00	27.16	W	O

	ATOM	4023	O	HOH	W	75	5.317	37.793	102.522	1.00	30.41	W	O
	ATOM	4024	O	HOH	W	76	19.168	23.700	110.137	1.00	28.91	W	O
	ATOM	4025	O	HOH	W	77	30.386	-10.910	84.608	1.00	32.94	W	O
	ATOM	4026	O	HOH	W	78	36.143	7.975	79.406	1.00	29.70	W	O
5	ATOM	4027	O	HOH	W	79	22.776	9.248	82.183	1.00	20.17	W	O
	ATOM	4028	O	HOH	W	81	37.057	-8.282	74.493	1.00	20.27	W	O
	ATOM	4029	O	HOH	W	82	28.228	29.062	103.673	1.00	28.10	W	O
	ATOM	4030	O	HOH	W	83	-0.541	19.565	105.264	1.00	24.14	W	O
	ATOM	4031	O	HOH	W	84	22.692	3.297	107.514	1.00	26.48	W	O
10	ATOM	4032	O	HOH	W	85	6.319	9.905	75.975	1.00	33.33	W	O
	ATOM	4033	O	HOH	W	86	-20.077	32.736	123.087	1.00	26.22	W	O
	ATOM	4034	O	HOH	W	87	2.894	-6.811	78.653	1.00	27.94	W	O
	ATOM	4035	O	HOH	W	88	16.333	13.154	86.247	1.00	19.04	W	O
	ATOM	4036	O	HOH	W	89	-18.401	26.785	101.005	1.00	20.65	W	O
15	ATOM	4037	O	HOH	W	90	14.178	4.497	102.132	1.00	14.84	W	O
	ATOM	4038	O	HOH	W	91	37.756	12.396	75.146	1.00	53.57	W	O
	ATOM	4039	O	HOH	W	92	5.996	41.146	107.575	1.00	31.31	W	O
	ATOM	4040	O	HOH	W	93	33.958	9.979	93.064	1.00	21.64	W	O
	ATOM	4041	O	HOH	W	94	29.435	24.180	93.845	1.00	31.70	W	O
20	ATOM	4042	O	HOH	W	95	-20.084	29.808	120.008	1.00	37.49	W	O
	ATOM	4043	O	HOH	W	96	11.886	24.347	94.949	1.00	31.14	W	O
	ATOM	4044	O	HOH	W	97	20.130	-7.765	79.021	1.00	24.27	W	O
	ATOM	4045	O	HOH	W	98	13.677	13.199	85.492	1.00	41.34	W	O
	ATOM	4046	O	HOH	W	100	9.428	16.898	98.102	1.00	28.31	W	O
25	ATOM	4047	O	HOH	W	101	32.099	-12.636	81.025	1.00	21.44	W	O
	ATOM	4048	O	HOH	W	102	-14.681	35.792	88.683	1.00	43.48	W	O
	ATOM	4049	O	HOH	W	103	-7.331	22.775	102.908	1.00	21.34	W	O
	ATOM	4050	O	HOH	W	104	30.867	-3.411	103.450	1.00	17.02	W	O
	ATOM	4051	O	HOH	W	105	30.952	7.074	82.558	1.00	30.32	W	O
30	ATOM	4052	O	HOH	W	106	0.055	-8.254	81.647	1.00	44.32	W	O
	ATOM	4053	O	HOH	W	107	24.927	13.293	82.288	1.00	33.73	W	O
	ATOM	4054	O	HOH	W	108	-23.807	32.474	120.697	1.00	34.73	W	O
	ATOM	4055	O	HOH	W	109	9.549	-11.066	85.205	1.00	32.37	W	O
	ATOM	4056	O	HOH	W	110	31.311	-4.410	95.935	1.00	36.67	W	O
35	ATOM	4057	O	HOH	W	111	31.367	-8.798	85.899	1.00	24.73	W	O
	ATOM	4058	O	HOH	W	112	-2.685	32.829	97.162	1.00	14.26	W	O
	ATOM	4059	O	HOH	W	113	31.508	24.004	97.423	1.00	32.37	W	O
	ATOM	4060	O	HOH	W	114	14.725	-7.846	97.853	1.00	25.19	W	O
	ATOM	4061	O	HOH	W	115	-3.331	27.584	87.465	1.00	36.07	W	O
40	ATOM	4062	O	HOH	W	116	9.759	12.912	73.461	1.00	17.17	W	O
	ATOM	4063	O	HOH	W	117	-9.716	4.459	90.108	1.00	32.05	W	O
	ATOM	4064	O	HOH	W	118	20.800	2.961	70.582	1.00	30.32	W	O
	ATOM	4065	O	HOH	W	119	18.183	35.258	107.203	1.00	25.90	W	O
	ATOM	4066	O	HOH	W	120	14.131	35.183	110.395	1.00	31.30	W	O
45	ATOM	4067	O	HOH	W	122	13.443	31.066	92.909	1.00	28.30	W	O
	ATOM	4068	O	HOH	W	123	5.710	25.002	114.636	1.00	50.47	W	O
	ATOM	4069	O	HOH	W	124	-9.776	26.728	117.248	1.00	38.41	W	O
	ATOM	4070	O	HOH	W	125	-15.147	2.711	93.850	1.00	28.99	W	O
	ATOM	4071	O	HOH	W	126	22.123	32.188	96.064	1.00	28.66	W	O
50	ATOM	4072	O	HOH	W	127	18.922	7.388	72.762	1.00	31.98	W	O
	ATOM	4073	O	HOH	W	128	26.078	-10.105	80.952	1.00	33.21	W	O
	ATOM	4074	O	HOH	W	129	33.351	8.652	88.931	1.00	34.31	W	O
	ATOM	4075	O	HOH	W	130	33.136	15.710	88.777	1.00	51.57	W	O
	ATOM	4076	O	HOH	W	131	2.007	37.692	103.678	1.00	36.95	W	O
55	ATOM	4077	O	HOH	W	132	33.678	5.637	104.529	1.00	28.36	W	O
	ATOM	4078	O	HOH	W	133	7.880	-11.049	90.515	1.00	41.06	W	O
	ATOM	4079	O	HOH	W	134	-11.066	28.063	82.867	1.00	45.18	W	O
	ATOM	4080	O	HOH	W	135	25.936	-6.768	94.146	1.00	32.98	W	O
	ATOM	4081	O	HOH	W	136	43.370	1.669	71.874	1.00	32.04	W	O
60	ATOM	4082	O	HOH	W	137	1.019	6.008	79.468	1.00	40.19	W	O
	ATOM	4083	O	HOH	W	138	34.715	13.498	101.014	1.00	53.03	W	O

	ATOM	4084	O	HOH W 139	22.191	11.429	81.361	1.00	41.29	W	O
	ATOM	4085	O	HOH W 140	24.467	21.102	82.091	1.00	34.83	W	O
	ATOM	4086	O	HOH W 141	15.139	37.655	103.495	1.00	28.25	W	O
	ATOM	4087	O	HOH W 142	-11.890	15.447	104.306	1.00	26.61	W	O
5	ATOM	4088	O	HOH W 143	32.110	-6.441	90.476	1.00	34.73	W	O
	ATOM	4089	O	HOH W 144	21.865	31.313	108.472	1.00	35.52	W	O
	ATOM	4090	O	HOH W 145	19.868	20.917	110.695	1.00	48.68	W	O
	ATOM	4091	O	HOH W 146	4.529	35.844	118.732	1.00	38.17	W	O
	ATOM	4092	O	HOH W 147	31.420	13.080	84.897	1.00	35.77	W	O
10	ATOM	4093	O	HOH W 148	5.862	33.041	95.343	1.00	42.81	W	O
	ATOM	4094	O	HOH W 149	36.227	-7.429	65.214	1.00	52.25	W	O
	ATOM	4095	O	HOH W 150	12.533	-3.257	98.974	1.00	30.04	W	O
	ATOM	4096	O	HOH W 151	41.936	5.196	81.078	1.00	48.30	W	O
	ATOM	4097	O	HOH W 152	5.365	0.173	100.870	1.00	38.17	W	O
15	ATOM	4098	O	HOH W 153	18.974	10.598	76.035	1.00	27.27	W	O
	ATOM	4099	O	HOH W 154	-11.459	23.657	81.891	1.00	44.66	W	O
	ATOM	4100	O	HOH W 155	-11.643	37.549	102.792	1.00	29.06	W	O
	ATOM	4101	O	HOH W 156	21.611	33.384	110.725	1.00	43.54	W	O
	ATOM	4102	O	HOH W 157	5.082	13.359	91.364	1.00	34.56	W	O
20	ATOM	4103	O	HOH W 158	-4.222	32.340	117.504	1.00	52.91	W	O
	ATOM	4104	O	HOH W 159	-4.833	0.443	84.678	1.00	31.52	W	O
	ATOM	4105	O	HOH W 160	-2.712	24.390	91.588	1.00	42.37	W	O
	ATOM	4106	O	HOH W 161	23.968	10.013	108.083	1.00	52.17	W	O
	ATOM	4107	O	HOH W 162	39.266	7.831	70.972	1.00	30.66	W	O
25	ATOM	4108	O	HOH W 163	-6.156	19.204	110.800	1.00	49.86	W	O
	ATOM	4109	O	HOH W 164	19.098	17.380	84.173	1.00	36.03	W	O
	ATOM	4110	O	HOH W 165	13.399	33.954	93.836	1.00	36.17	W	O
	ATOM	4111	O	HOH W 166	-31.448	25.540	114.441	1.00	37.50	W	O
	ATOM	4112	O	HOH W 167	13.302	14.583	106.224	1.00	21.88	W	O
30	ATOM	4113	O	HOH W 169	1.752	26.748	97.241	1.00	37.67	W	O
	ATOM	4114	O	HOH W 170	27.718	0.693	62.087	1.00	46.32	W	O
	ATOM	4115	O	HOH W 171	28.912	-5.883	98.061	1.00	45.53	W	O
	ATOM	4116	O	HOH W 172	12.144	-6.132	99.269	1.00	28.03	W	O
	ATOM	4117	O	HOH W 173	9.713	14.070	99.156	1.00	36.36	W	O
35	ATOM	4118	O	HOH W 174	44.241	3.007	80.980	1.00	55.52	W	O
	ATOM	4119	O	HOH W 175	-2.145	9.708	89.227	1.00	30.25	W	O
	ATOM	4120	O	HOH W 176	21.259	13.911	103.297	1.00	46.50	W	O
	ATOM	4121	O	HOH W 177	28.628	2.356	108.048	1.00	35.93	W	O
	ATOM	4122	O	HOH W 178	-3.113	20.410	91.180	1.00	49.91	W	O
40	ATOM	4123	O	HOH W 179	9.943	40.130	105.661	1.00	49.34	W	O
	ATOM	4124	O	HOH W 180	-14.721	37.561	104.779	1.00	37.09	W	O
	ATOM	4125	O	HOH W 181	0.350	-13.390	93.145	1.00	42.85	W	O
	ATOM	4126	O	HOH W 182	-16.751	30.840	125.808	1.00	43.38	W	O
	ATOM	4127	O	HOH W 183	5.022	10.944	94.912	1.00	36.63	W	O
45	ATOM	4128	O	HOH W 184	47.344	-3.172	85.812	1.00	29.25	W	O
	ATOM	4129	O	HOH W 185	-12.479	0.246	96.627	1.00	44.43	W	O
	ATOM	4130	O	HOH W 186	11.422	0.781	69.608	1.00	50.67	W	O
	ATOM	4131	O	HOH W 187	1.340	12.706	88.912	1.00	17.04	W	O
	ATOM	4132	O	HOH W 188	22.147	27.729	88.824	1.00	45.97	W	O
50	ATOM	4133	O	HOH W 189	9.004	12.970	81.421	1.00	51.36	W	O
	ATOM	4134	O	HOH W 191	30.121	9.526	83.001	1.00	30.35	W	O
	ATOM	4135	O	HOH W 192	-13.167	21.122	108.317	1.00	36.08	W	O
	ATOM	4136	O	HOH W 193	-17.245	22.145	114.082	1.00	45.19	W	O
	ATOM	4137	O	HOH W 194	41.158	-7.584	68.969	1.00	35.80	W	O
55	ATOM	4138	O	HOH W 195	15.255	-3.823	74.196	1.00	33.67	W	O
	ATOM	4139	O	HOH W 196	4.303	32.713	92.780	1.00	35.43	W	O
	ATOM	4140	O	HOH W 197	31.497	18.300	97.022	1.00	26.66	W	O
	ATOM	4141	O	HOH W 198	7.975	21.318	103.826	1.00	43.04	W	O
	ATOM	4142	O	HOH W 199	8.986	-7.658	77.984	1.00	41.83	W	O
60	ATOM	4143	O	HOH W 200	-18.535	14.030	99.271	1.00	42.15	W	O
	ATOM	4144	O	HOH W 201	35.091	-0.808	99.802	1.00	46.06	W	O

ATOM	4145	O	HOH W 203	-2.184	13.964	100.706	1.00	74.49	W	O
ATOM	4146	O	HOH W 204	34.686	-12.618	82.251	1.00	34.52	W	O
ATOM	4147	O	HOH W 205	10.210	18.638	100.418	1.00	37.42	W	O
ATOM	4148	O	HOH W 206	-8.704	10.500	91.279	1.00	42.78	W	O
ATOM	4149	O	HOH W 207	3.790	-6.540	82.547	1.00	23.61	W	O
ATOM	4150	O	HOH W 208	25.141	20.223	107.446	1.00	50.13	W	O
ATOM	4151	O	HOH W 209	21.473	-6.251	99.480	1.00	33.69	W	O
ATOM	4152	O	HOH W 212	-11.925	21.358	85.228	1.00	37.61	W	O
ATOM	4153	O	HOH W 214	36.678	-0.414	95.891	1.00	30.67	W	O
ATOM	4154	O	HOH W 215	-5.799	7.996	97.828	1.00	30.32	W	O
ATOM	4155	O	HOH W 216	-20.478	20.138	103.173	1.00	39.11	W	O
ATOM	4156	O	HOH W 217	12.213	14.368	87.152	1.00	31.57	W	O
ATOM	4157	O	HOH W 218	-22.625	18.132	100.101	1.00	46.35	W	O
ATOM	4158	O	HOH W 219	-19.563	28.480	88.113	1.00	51.22	W	O
ATOM	4159	O	HOH W 220	20.900	30.072	89.269	1.00	63.55	W	O
ATOM	4160	O	HOH W 221	-1.490	9.805	81.944	1.00	39.00	W	O
ATOM	4161	O	HOH W 222	21.948	-11.094	73.960	1.00	62.58	W	O
ATOM	4162	O	HOH W 223	16.250	35.597	101.623	1.00	29.57	W	O
ATOM	4163	O	HOH W 224	28.972	27.235	92.671	1.00	41.21	W	O
ATOM	4164	O	HOH W 225	45.423	2.082	74.169	1.00	39.22	W	O
ATOM	4165	O	HOH W 226	45.259	0.612	70.233	1.00	52.06	W	O
ATOM	4166	O	HOH W 227	-4.834	-10.203	92.007	1.00	28.91	W	O
ATOM	4167	O	HOH W 228	-26.786	21.041	113.504	1.00	63.51	W	O
ATOM	4168	O	HOH W 229	4.385	-4.060	99.169	1.00	44.90	W	O
ATOM	4169	O	HOH W 230	29.725	14.057	106.512	1.00	47.35	W	O
ATOM	4170	O	HOH W 231	8.274	16.343	88.023	1.00	37.92	W	O
ATOM	4171	O	HOH W 232	26.302	27.216	105.852	1.00	44.83	W	O
ATOM	4172	O	HOH W 233	-17.533	40.068	113.830	1.00	35.69	W	O
ATOM	4173	O	HOH W 234	-18.605	26.063	84.723	1.00	56.46	W	O
ATOM	4174	O	HOH W 235	33.922	15.190	94.802	1.00	56.82	W	O
ATOM	4175	O	HOH W 236	11.403	-9.873	79.359	1.00	46.16	W	O
ATOM	4176	O	HOH W 237	34.709	6.908	95.381	1.00	51.22	W	O
ATOM	4177	O	HOH W 238	9.586	13.857	85.777	1.00	32.27	W	O
ATOM	4178	O	HOH W 239	-20.363	18.864	100.658	1.00	66.22	W	O
ATOM	4179	O	HOH W 240	19.167	-7.670	71.595	1.00	38.96	W	O
ATOM	4180	O	HOH W 242	-4.347	7.089	83.943	1.00	34.28	W	O
ATOM	4181	O	HOH W 244	13.637	39.059	110.482	1.00	35.74	W	O
ATOM	4182	O	HOH W 245	6.635	11.429	105.918	1.00	98.33	W	O
ATOM	4183	O	HOH W 246	-11.717	37.604	118.307	1.00	60.71	W	O
ATOM	4184	O	HOH W 247	36.600	1.072	98.205	1.00	37.52	W	O
ATOM	4185	O	HOH W 248	1.815	2.355	101.069	1.00	30.58	W	O
ATOM	4186	O	HOH W 249	31.117	20.193	101.536	1.00	42.13	W	O
ATOM	4187	O	HOH W 250	6.143	32.066	113.958	1.00	34.13	W	O
ATOM	4188	O	HOH W 251	12.546	26.526	89.169	1.00	75.55	W	O
ATOM	4189	O	HOH W 252	15.820	-5.443	71.698	1.00	64.76	W	O
ATOM	4190	O	HOH W 253	-19.453	13.362	89.607	1.00	45.55	W	O
ATOM	4191	O	HOH W 254	-17.164	32.080	100.217	1.00	39.90	W	O
ATOM	4192	O	HOH W 255	37.030	-9.701	83.335	1.00	43.29	W	O
ATOM	4193	O	HOH W 256	34.324	-6.400	88.335	1.00	50.06	W	O
ATOM	4194	O	HOH W 257	49.009	-9.543	83.531	1.00	42.11	W	O
ATOM	4195	O	HOH W 258	9.878	15.022	101.645	1.00	48.63	W	O
ATOM	4196	O	HOH W 259	26.271	16.951	106.835	1.00	28.76	W	O
ATOM	4197	O	HOH W 260	21.231	10.692	77.782	1.00	52.78	W	O
ATOM	4198	O	HOH W 261	8.597	31.178	114.621	1.00	29.98	W	O
ATOM	4199	O	HOH W 263	28.771	11.642	105.175	1.00	49.49	W	O
ATOM	4200	O	HOH W 264	0.559	33.356	86.616	1.00	43.50	W	O
ATOM	4201	O	HOH W 265	-2.459	19.283	97.138	1.00	40.59	W	O
ATOM	4202	O	HOH W 266	33.611	10.760	95.480	1.00	31.51	W	O
ATOM	4203	O	HOH W 268	-13.163	9.376	82.701	1.00	91.44	W	O
ATOM	4204	O	HOH W 269	-10.588	-3.736	92.548	1.00	48.91	W	O
ATOM	4205	O	HOH W 270	30.517	-3.934	99.364	1.00	46.59	W	O

ATOM	4206	O	HOH	W	271	-15.610	30.916	83.905	1.00	72.20	W	O
ATOM	4207	O	HOH	W	272	8.482	-2.678	100.994	1.00	40.04	W	O
ATOM	4208	O	HOH	W	273	-14.819	39.625	106.340	1.00	32.66	W	O
ATOM	4209	O	HOH	W	274	-15.862	27.341	124.046	1.00	49.70	W	O
ATOM	4210	O	HOH	W	275	0.355	7.737	78.018	1.00	39.51	W	O
ATOM	4211	O	HOH	W	276	11.649	6.543	73.332	1.00	62.29	W	O
ATOM	4212	O	HOH	W	277	13.896	1.911	70.069	1.00	36.22	W	O
ATOM	4213	O	HOH	W	279	11.226	9.285	70.225	1.00	37.33	W	O
ATOM	4214	O	HOH	W	280	17.596	11.506	73.709	1.00	37.13	W	O
ATOM	4215	O	HOH	W	281	22.601	8.046	77.458	1.00	84.20	W	O
ATOM	4216	O	HOH	W	282	22.007	2.832	75.959	1.00	60.94	W	O
ATOM	4217	O	HOH	W	283	14.332	0.684	101.417	1.00	26.51	W	O
ATOM	4218	O	HOH	W	284	17.488	14.803	74.520	1.00	50.25	W	O
ATOM	4219	O	HOH	W	285	11.672	12.725	82.121	1.00	31.27	W	O
ATOM	4220	O	HOH	W	286	13.338	15.638	79.654	1.00	49.99	W	O
ATOM	4221	O	HOH	W	287	15.476	15.666	77.915	1.00	39.70	W	O
ATOM	4222	O	HOH	W	288	-19.019	18.128	91.748	1.00	57.76	W	O
ATOM	4223	O	HOH	W	289	-18.913	20.525	92.776	1.00	52.52	W	O
ATOM	4224	O	HOH	W	290	-21.754	17.779	92.013	1.00	70.60	W	O
ATOM	4225	O	HOH	W	291	-7.681	20.732	86.926	1.00	30.75	W	O
ATOM	4226	O	HOH	W	292	-18.672	16.770	99.341	1.00	72.88	W	O
ATOM	4227	O	HOH	W	293	41.053	-10.007	75.389	1.00	40.19	W	O
ATOM	4228	O	HOH	W	294	15.967	34.561	95.189	1.00	32.39	W	O
ATOM	4229	O	HOH	W	295	3.242	22.750	99.080	1.00	42.03	W	O
ATOM	4230	O	HOH	W	296	42.034	1.021	85.260	1.00	31.00	W	O
ATOM	4231	O	HOH	W	297	34.100	-8.318	85.997	1.00	20.43	W	O
ATOM	4232	O	HOH	W	298	26.478	33.532	95.995	1.00	51.52	W	O
ATOM	4233	O	HOH	W	299	34.395	6.694	89.928	1.00	53.02	W	O
ATOM	4234	O	HOH	W	300	-0.985	37.065	99.982	1.00	39.51	W	O
ATOM	4235	O	HOH	W	301	-0.252	34.259	98.319	1.00	40.18	W	O
ATOM	4236	O	HOH	W	302	1.043	37.976	101.110	1.00	50.67	W	O
ATOM	4237	O	HOH	W	303	13.169	27.347	107.852	1.00	46.98	W	O
ATOM	4238	O	HOH	W	304	2.617	-8.808	82.550	1.00	34.55	W	O
ATOM	4239	O	HOH	W	306	-24.119	34.693	121.849	1.00	38.49	W	O
ATOM	4240	O	HOH	W	307	-21.110	33.926	125.264	1.00	35.91	W	O
ATOM	4241	O	HOH	W	308	-22.717	35.450	124.405	1.00	40.22	W	O
ATOM	4242	O	HOH	W	309	14.431	-7.080	100.358	1.00	40.89	W	O
ATOM	4243	O	HOH	W	310	-1.633	26.170	89.620	1.00	32.95	W	O
ATOM	4244	O	HOH	W	311	-0.715	23.415	92.259	1.00	48.52	W	O
ATOM	4245	O	HOH	W	312	15.583	37.247	111.051	1.00	102.38	W	O
ATOM	4246	O	HOH	W	313	49.127	-4.716	84.592	1.00	31.17	W	O
ATOM	4247	O	HOH	W	316	4.543	25.776	97.442	1.00	20.30	W	O
ATOM	4248	O	HOH	W	317	13.219	-2.231	96.766	1.00	26.75	W	O
ATOM	4249	O	HOH	W	318	-1.027	12.136	89.956	1.00	30.29	W	O
ATOM	4250	O	HOH	W	319	24.455	-0.869	84.238	1.00	47.96	W	O
ATOM	4251	O	HOH	W	321	7.387	26.214	95.885	1.00	43.12	W	O
ATOM	4252	O	HOH	W	323	-10.121	37.815	100.499	1.00	26.17	W	O
ATOM	4253	O	HOH	W	324	44.204	-8.495	89.166	1.00	41.06	W	O
ATOM	4254	O	HOH	W	325	16.219	0.595	103.250	1.00	24.87	W	O
ATOM	4255	O	HOH	W	326	16.724	6.735	108.041	1.00	33.97	W	O
ATOM	4256	O	HOH	W	327	-5.658	41.985	114.043	1.00	41.88	W	O
ATOM	4257	O	HOH	W	328	30.517	7.926	72.820	1.00	24.86	W	O
ATOM	4258	O	HOH	W	329	-4.229	13.443	105.886	1.00	42.46	W	O
ATOM	4259	O	HOH	W	330	9.856	-2.127	98.647	1.00	29.78	W	O
ATOM	4260	O	HOH	W	331	32.200	13.062	101.692	1.00	46.72	W	O
ATOM	4261	O	HOH	W	332	11.618	16.977	87.587	1.00	38.22	W	O
ATOM	4262	O	HOH	W	334	13.863	35.533	100.193	1.00	38.69	W	O
ATOM	4263	O	HOH	W	335	3.202	20.353	103.614	1.00	41.76	W	O
ATOM	4264	O	HOH	W	336	-0.265	25.481	112.882	1.00	45.85	W	O
ATOM	4265	O	HOH	W	337	33.088	17.503	92.709	1.00	40.43	W	O
ATOM	4266	O	HOH	W	338	-10.753	19.811	115.192	1.00	40.52	W	O

	ATOM	4267	O	HOH W 339	5.702	24.463	117.434	1.00	32.03	W	O
	ATOM	4268	O	HOH W 340	36.083	5.104	86.455	1.00	49.47	W	O
	ATOM	4269	O	HOH W 341	45.308	-14.674	86.663	1.00	43.84	W	O
	ATOM	4270	O	HOH W 342	-3.013	2.927	80.584	1.00	48.18	W	O
5	ATOM	4271	O	HOH W 343	-8.584	2.810	102.723	1.00	45.47	W	O
	ATOM	4272	O	HOH W 344	14.270	31.214	111.267	1.00	53.23	W	O
	ATOM	4273	O	HOH W 345	5.303	5.466	73.316	1.00	35.97	W	O
	ATOM	4274	O	HOH W 346	5.884	14.859	94.569	1.00	34.36	W	O
	ATOM	4275	O	HOH W 347	13.766	-10.804	94.639	1.00	37.55	W	O
10	ATOM	4276	O	HOH W 348	28.817	-6.638	95.408	1.00	46.05	W	O
	ATOM	4277	O	HOH W 349	-16.201	4.012	101.225	1.00	55.36	W	O
	ATOM	4278	O	HOH W 350	12.538	12.934	104.399	1.00	50.37	W	O
	ATOM	4279	O	HOH W 351	-11.930	40.337	106.636	1.00	34.71	W	O
	ATOM	4280	O	HOH W 352	14.848	22.833	108.104	1.00	32.58	W	O
15	ATOM	4281	O	HOH W 353	4.331	11.520	83.240	1.00	65.30	W	O
	ATOM	4282	O	HOH W 354	-30.188	27.123	112.476	1.00	54.95	W	O
	ATOM	4283	O	HOH W 355	0.831	37.120	115.463	1.00	45.14	W	O
	ATOM	4284	O	HOH W 356	39.804	-9.143	67.597	1.00	38.07	W	O
	ATOM	4285	O	HOH W 357	-5.193	41.092	118.296	1.00	49.38	W	O
20	ATOM	4286	O	HOH W 358	-4.318	15.660	94.910	1.00	64.77	W	O
	ATOM	4287	O	HOH W 359	2.404	30.953	94.996	1.00	43.81	W	O
	ATOM	4288	O	HOH W 360	5.633	-10.209	96.938	1.00	33.82	W	O
	ATOM	4289	O	HOH W 361	4.540	-6.167	100.513	1.00	39.66	W	O
	ATOM	4290	O	HOH W 362	-19.660	12.268	100.884	1.00	27.40	W	O
25	ATOM	4291	O	HOH W 363	46.225	-3.464	88.101	1.00	43.37	W	O
	ATOM	4292	O	HOH W 364	23.301	28.533	108.032	1.00	49.28	W	O
	ATOM	4293	O	HOH W 365	17.099	11.410	108.574	1.00	47.12	W	O
	ATOM	4294	O	HOH W 366	26.600	2.351	110.176	1.00	37.38	W	O
	ATOM	4295	O	HOH W 367	-22.520	39.595	116.261	1.00	49.47	W	O
30	ATOM	4296	O	HOH W 368	0.313	25.144	94.624	1.00	40.92	W	O
	ATOM	4297	O	HOH W 369	20.613	-10.182	77.986	1.00	37.72	W	O
	ATOM	4298	O	HOH W 370	22.771	6.260	79.455	1.00	47.23	W	O
	ATOM	4299	O	HOH W 371	14.209	-9.494	101.679	1.00	50.86	W	O
	ATOM	4300	O	HOH W 372	32.180	-13.182	64.680	1.00	31.90	W	O
35	ATOM	4301	O	HOH W 373	-15.578	22.302	119.158	1.00	67.22	W	O
	ATOM	4302	O	HOH W 374	-5.806	33.729	119.651	1.00	78.83	W	O
	ATOM	4303	O	HOH W 375	5.261	41.524	122.294	1.00	64.79	W	O
	ATOM	4304	O	HOH W 376	-26.827	27.798	95.626	1.00	52.39	W	O
	ATOM	4305	O	HOH W 377	-0.392	20.708	96.954	1.00	47.09	W	O
40	ATOM	4306	O	HOH W 378	38.359	3.116	87.840	1.00	51.46	W	O
	ATOM	4307	O	HOH W 379	-8.697	-6.590	90.186	1.00	37.82	W	O
	ATOM	4308	O	HOH W 380	34.329	-8.438	63.764	1.00	43.15	W	O
	ATOM	4309	O	HOH W 381	25.046	4.206	109.068	1.00	36.85	W	O
	ATOM	4310	O	HOH W 382	-12.307	4.812	90.954	1.00	54.83	W	O
45	ATOM	4311	O	HOH W 383	22.346	0.999	109.244	1.00	55.83	W	O
	ATOM	4312	O	HOH W 384	20.145	33.493	94.808	1.00	33.85	W	O
	ATOM	4313	O	HOH W 385	17.103	17.604	111.486	1.00	58.32	W	O
	ATOM	4314	O	HOH W 386	-19.799	34.573	91.860	1.00	30.28	W	O
	ATOM	4315	O	HOH W 387	14.665	36.499	114.334	1.00	75.56	W	O
50	ATOM	4316	O	HOH W 388	7.042	35.670	94.968	1.00	48.07	W	O
	ATOM	4317	O	HOH W 389	32.245	-16.178	70.702	1.00	49.01	W	O
	ATOM	4318	O	HOH W 390	10.283	21.058	100.027	1.00	84.17	W	O
	ATOM	4319	O	HOH W 391	34.895	7.447	103.148	1.00	40.35	W	O
	ATOM	4320	O	HOH W 392	-25.110	16.204	100.371	1.00	50.31	W	O
55	ATOM	4321	O	HOH W 393	-25.389	34.708	117.495	1.00	48.66	W	O
	ATOM	4322	O	HOH W 394	11.890	21.970	101.820	1.00	68.28	W	O
	ATOM	4323	O	HOH W 395	45.837	-5.824	89.349	1.00	28.55	W	O
	ATOM	4324	O	HOH W 396	-8.379	40.188	104.608	1.00	50.71	W	O
	ATOM	4325	O	HOH W 397	-2.215	0.600	81.682	1.00	55.91	W	O
60	ATOM	4326	O	HOH W 398	21.869	-8.133	89.554	1.00	70.38	W	O
	ATOM	4327	O	HOH W 399	24.028	8.821	110.407	1.00	40.67	W	O

	ATOM	4328	O	HOH W 400	4.868	30.432	91.498	1.00	63.30	W	O
	ATOM	4329	O	HOH W 401	-13.446	0.549	94.109	1.00	38.55	W	O
	ATOM	4330	O	HOH W 402	-14.032	30.272	124.462	1.00	67.33	W	O
	ATOM	4331	O	HOH W 403	-8.252	25.376	115.719	1.00	72.04	W	O
5	ATOM	4332	O	HOH W 404	-19.618	7.134	97.108	1.00	69.74	W	O
	ATOM	4333	O	HOH W 405	43.024	-2.573	87.596	1.00	47.06	W	O
	ATOM	4334	O	HOH W 406	-8.280	39.609	100.109	1.00	45.22	W	O
	ATOM	4335	O	HOH W 407	13.386	-2.161	101.138	1.00	40.32	W	O
	ATOM	4336	O	HOH W 408	1.781	-3.496	73.915	1.00	35.10	W	O
10	ATOM	4337	O	HOH W 409	-19.493	33.560	127.412	1.00	52.12	W	O
	ATOM	4338	O	HOH W 410	-12.357	32.930	84.450	1.00	55.63	W	O
	ATOM	4339	O	HOH W 411	-16.396	41.453	106.252	1.00	67.78	W	O
	ATOM	4340	O	HOH W 412	9.259	22.383	107.628	1.00	62.67	W	O
	ATOM	4341	O	HOH W 413	26.452	10.638	108.233	1.00	55.75	W	O
15	ATOM	4342	O	HOH W 414	3.629	26.004	108.637	1.00	32.70	W	O
	ATOM	4343	O	HOH W 415	15.226	13.844	73.002	1.00	48.60	W	O
	ATOM	4344	O	HOH W 416	1.142	27.132	93.054	1.00	41.48	W	O
	ATOM	4345	O	HOH W 417	-8.715	22.235	116.597	1.00	46.49	W	O
	ATOM	4346	O	HOH W 418	14.671	-10.428	90.692	1.00	44.76	W	O
20	ATOM	4347	O	HOH W 419	41.314	7.425	77.188	1.00	58.46	W	O
	ATOM	4348	O	HOH W 420	8.057	17.800	101.961	1.00	51.89	W	O
	ATOM	4349	O	HOH W 421	29.708	7.490	70.081	1.00	36.19	W	O
	ATOM	4350	O	HOH W 422	18.102	4.689	108.132	1.00	65.88	W	O
	ATOM	4351	O	HOH W 423	20.158	13.014	111.569	1.00	56.69	W	O
25	ATOM	4352	O	HOH W 424	18.739	14.999	112.142	1.00	76.64	W	O
	ATOM	4353	O	HOH W 425	24.783	24.390	107.699	1.00	68.92	W	O
	ATOM	4354	O	HOH W 426	33.410	-5.505	95.203	1.00	42.38	W	O
	ATOM	4355	O	HOH W 427	35.004	-3.766	95.192	1.00	35.89	W	O
	ATOM	4356	O	HOH W 428	13.651	18.898	90.820	1.00	44.94	W	O
30	ATOM	4357	O	HOH W 429	31.902	10.936	83.768	1.00	50.77	W	O
	ATOM	4358	O	HOH W 430	20.413	14.829	81.652	1.00	86.25	W	O
	ATOM	4359	O	HOH W 431	32.924	22.614	95.004	1.00	57.23	W	O
	ATOM	4360	O	HOH W 432	17.143	27.068	92.217	1.00	41.94	W	O
	ATOM	4361	O	HOH W 433	17.696	29.224	90.849	1.00	44.20	W	O
35	ATOM	4362	O	HOH W 434	6.235	13.909	97.039	1.00	36.25	W	O
	ATOM	4363	O	HOH W 435	15.368	1.745	105.621	1.00	65.45	W	O
	ATOM	4364	O	HOH W 436	12.352	2.448	102.309	1.00	56.90	W	O
	ATOM	4365	O	HOH W 437	17.216	-1.654	103.171	1.00	64.25	W	O
	ATOM	4366	O	HOH W 438	-24.467	21.964	97.052	1.00	59.17	W	O
40	ATOM	4367	O	HOH W 439	6.899	37.197	100.238	1.00	53.34	W	O
	ATOM	4368	O	HOH W 440	-5.836	25.471	114.752	1.00	49.14	W	O
	ATOM	4369	O	HOH W 441	-17.656	23.630	116.338	1.00	60.48	W	O
	ATOM	4370	O	HOH W 442	-21.781	21.666	113.537	1.00	30.82	W	O
	ATOM	4371	O	HOH W 443	39.860	6.346	67.021	1.00	32.01	W	O
45	ATOM	4372	O	HOH W 444	42.143	8.359	69.500	1.00	39.71	W	O
	ATOM	4373	O	HOH W 445	-8.339	-3.324	88.589	1.00	48.59	W	O
	ATOM	4374	O	HOH W 446	-5.439	-2.506	84.631	1.00	49.07	W	O
	ATOM	4375	O	HOH W 447	10.114	9.300	105.299	1.00	55.06	W	O
	ATOM	4376	O	HOH W 448	16.239	-12.467	79.695	1.00	48.81	W	O
50	ATOM	4377	O	HOH W 449	12.931	14.962	82.732	1.00	55.97	W	O
	ATOM	4378	O	HOH W 450	15.033	16.025	83.698	1.00	55.49	W	O
	ATOM	4379	O	HOH W 451	10.617	15.905	83.861	1.00	54.71	W	O
	ATOM	4380	O	HOH W 452	-5.587	14.189	96.637	1.00	17.19	W	O
	ATOM	4381	O	HOH W 454	-2.694	14.148	88.813	1.00	39.38	W	O
55	ATOM	4382	O	HOH W 455	3.241	25.419	113.472	1.00	35.59	W	O
	ATOM	4383	O	HOH W 456	6.666	28.248	94.111	1.00	31.20	W	O
	ATOM	4384	O	HOH W 457	4.912	26.581	118.595	1.00	33.12	W	O
	ATOM	4385	O	HOH W 458	13.177	32.164	114.127	1.00	57.36	W	O
	ATOM	4386	O	HOH W 459	25.786	35.921	98.725	1.00	58.99	W	O
60	ATOM	4387	O	HOH W 460	22.635	4.638	74.051	1.00	46.06	W	O
	ATOM	4388	O	HOH W 461	17.322	37.394	105.719	1.00	31.09	W	O

	ATOM	4389	O	HOH W 462	-7.224	20.703	114.851	1.00	39.30	W	O
	ATOM	4390	O	HOH W 463	35.611	11.671	98.382	1.00	46.52	W	O
	ATOM	4391	O	HOH W 464	29.883	-13.953	62.902	1.00	57.02	W	O
	ATOM	4392	O	HOH W 465	31.809	-8.822	91.814	1.00	48.95	W	O
5	ATOM	4393	O	HOH W 466	-4.260	7.670	89.713	1.00	47.18	W	O
	ATOM	4394	O	HOH W 467	10.396	24.915	91.432	1.00	40.35	W	O
	ATOM	4395	O	HOH W 468	25.263	11.071	82.716	1.00	54.15	W	O
	ATOM	4396	O	HOH W 469	38.248	5.442	99.845	1.00	42.81	W	O
	ATOM	4397	O	HOH W 470	36.347	9.341	100.618	1.00	34.65	W	O
10	ATOM	4398	O	HOH W 471	-16.914	41.482	111.141	1.00	42.00	W	O
	ATOM	4399	O	HOH W 472	-9.184	24.264	81.849	1.00	47.30	W	O
	ATOM	4400	O	HOH W 473	40.726	1.808	66.833	1.00	43.72	W	O
	ATOM	4401	O	HOH W 474	31.808	-18.642	70.728	1.00	37.59	W	O
	ATOM	4402	O	HOH W 475	16.188	22.858	110.296	1.00	49.77	W	O
15	ATOM	4403	O	HOH W 476	3.509	2.536	103.295	1.00	42.84	W	O
	ATOM	4404	O	HOH W 477	11.289	41.122	108.943	1.00	45.98	W	O
	ATOM	4405	O	HOH W 478	36.903	-5.044	64.038	1.00	55.21	W	O
	ATOM	4406	O	HOH W 479	-6.947	8.034	91.049	1.00	52.73	W	O
	ATOM	4407	O	HOH W 480	29.751	-15.588	72.186	1.00	39.77	W	O
20	ATOM	4408	O	HOH W 481	-19.537	40.486	107.195	1.00	44.19	W	O
	ATOM	4409	O	HOH W 482	13.213	-5.095	67.720	1.00	60.90	W	O
	ATOM	4410	O	HOH W 483	49.568	-7.870	76.168	1.00	56.88	W	O
	ATOM	4411	O	HOH W 484	20.138	10.494	110.659	1.00	51.35	W	O
	ATOM	4412	O	HOH W 485	23.477	20.576	109.910	1.00	40.59	W	O
25	ATOM	4413	O	HOH W 486	17.274	23.443	92.256	1.00	20.56	W	O
	ATOM	4414	O	HOH W 487	-3.839	23.924	116.158	1.00	53.03	W	O
	ATOM	4415	O	HOH W 488	-9.415	30.760	123.636	1.00	52.62	W	O
	ATOM	4416	O	HOH W 489	-1.387	9.782	78.997	1.00	53.83	W	O
	ATOM	4417	O	HOH W 490	9.922	-7.536	74.819	1.00	56.15	W	O
30	ATOM	4418	O	HOH W 491	-19.282	13.510	103.374	1.00	42.49	W	O
	ATOM	4419	O	HOH W 492	5.004	29.828	93.747	1.00	45.34	W	O
	ATOM	4420	O	HOH W 493	17.415	-8.223	91.913	1.00	37.18	W	O
	ATOM	4421	O	HOH W 494	-12.983	20.330	105.539	1.00	54.57	W	O
	ATOM	4422	O	HOH W 495	-7.159	22.883	83.768	1.00	46.62	W	O
35	ATOM	4423	O	HOH W 496	37.991	-8.468	95.150	1.00	50.24	W	O
	ATOM	4424	O	HOH W 497	6.698	22.515	106.540	1.00	31.67	W	O
	ATOM	4425	O	HOH W 498	0.537	27.673	90.158	1.00	49.73	W	O
	ATOM	4426	O	HOH W 499	40.928	-10.554	82.991	1.00	67.78	W	O
	ATOM	4427	O	HOH W 500	-9.156	36.949	84.009	1.00	72.95	W	O
40	ATOM	4428	O	HOH W 501	-33.297	21.816	110.516	1.00	49.38	W	O
	ATOM	4429	O	HOH W 502	14.744	-12.296	83.500	1.00	61.03	W	O
	ATOM	4430	O	HOH W 503	-0.797	13.710	92.437	1.00	67.43	W	O
	ATOM	4431	O	HOH W 504	-4.021	-6.785	82.556	1.00	66.42	W	O
	ATOM	4432	O	HOH W 505	39.144	-0.596	89.054	1.00	60.51	W	O
45	ATOM	4433	O	HOH W 506	-4.755	-6.160	85.441	1.00	49.25	W	O
	ATOM	4434	O	HOH W 507	28.668	-12.917	86.013	1.00	72.20	W	O
	ATOM	4435	O	HOH W 508	26.122	-13.358	85.255	1.00	54.49	W	O
	ATOM	4436	O	HOH W 509	1.611	-7.783	103.500	1.00	63.21	W	O
	ATOM	4437	O	HOH W 510	-16.935	38.862	97.751	1.00	38.07	W	O
50	TER	4438		HOH W 510							

[a]Amino acids residues of the light (L) and heavy (H) chains are numbered according to the Chothia numbering system as shown in Tables 6 and 7, respectively (Al-Lazikani *et al., Jour. Mol. Biol.* 273:927-948, 1997). Amino acid residues of
55 IL-13 (I) are numbered as shown in SEQ ID NO:4 (FIG. 2B).
[b]Columns are labeled according to Protein Data Bank Format, Version 2.2

Table 12. Structure coordinates of human IL-13/mAb13.2 Fab/IL-13Ra1[a, b]

	#	Name	Res.	Chain	Res #	X	Y	Z	occ	B	SegID	
ATOM	1	CB	PRO	I	6	27.016	30.544	-8.876	1.00	78.94	I	C
ATOM	2	CG	PRO	I	6	25.927	30.356	-7.827	1.00	79.11	I	C
ATOM	3	C	PRO	I	6	28.494	28.571	-9.333	1.00	77.04	I	C
ATOM	4	O	PRO	I	6	28.955	27.658	-10.011	1.00	78.75	I	O
ATOM	5	N	PRO	I	6	26.037	28.388	-9.357	1.00	79.03	I	N
ATOM	6	CD	PRO	I	6	25.355	28.902	-8.177	1.00	78.57	I	C
ATOM	7	CA	PRO	I	6	27.169	29.250	-9.667	1.00	77.81	I	C
ATOM	8	N	SER	I	7	29.158	29.102	-8.292	1.00	73.92	I	N
ATOM	9	CA	SER	I	7	30.314	28.399	-7.754	1.00	70.46	I	C
ATOM	10	CB	SER	I	7	31.594	28.866	-8.450	1.00	71.68	I	C
ATOM	11	OG	SER	I	7	32.433	27.732	-8.694	1.00	70.98	I	O
ATOM	12	C	SER	I	7	30.438	28.627	-6.254	1.00	68.57	I	C
ATOM	13	O	SER	I	7	29.807	29.505	-5.678	1.00	68.82	I	O
ATOM	14	N	THR	I	8	31.238	27.760	-5.628	1.00	64.85	I	N
ATOM	15	CA	THR	I	8	31.542	27.924	-4.220	1.00	61.35	I	C
ATOM	16	CB	THR	I	8	31.055	26.659	-3.518	1.00	60.21	I	C
ATOM	17	OG1	THR	I	8	31.602	25.526	-4.191	1.00	60.16	I	O
ATOM	18	CG2	THR	I	8	29.525	26.585	-3.602	1.00	60.47	I	C
ATOM	19	C	THR	I	8	33.049	28.098	-4.021	1.00	59.39	I	C
ATOM	20	O	THR	I	8	33.866	27.692	-4.837	1.00	60.36	I	O
ATOM	21	N	ALA	I	9	33.455	28.703	-2.891	1.00	56.29	I	N
ATOM	22	CA	ALA	I	9	34.886	28.844	-2.652	1.00	53.24	I	C
ATOM	23	CB	ALA	I	9	35.099	29.365	-1.233	1.00	53.72	I	C
ATOM	24	C	ALA	I	9	35.601	27.499	-2.836	1.00	50.08	I	C
ATOM	25	O	ALA	I	9	36.740	27.420	-3.303	1.00	48.77	I	O
ATOM	26	N	LEU	I	10	34.896	26.425	-2.407	1.00	47.48	I	N
ATOM	27	CA	LEU	I	10	35.458	25.082	-2.467	1.00	47.12	I	C
ATOM	28	CB	LEU	I	10	34.532	24.133	-1.702	1.00	47.12	I	C
ATOM	29	CG	LEU	I	10	35.161	22.751	-1.483	1.00	47.82	I	C
ATOM	30	CD1	LEU	I	10	36.663	22.837	-1.178	1.00	46.75	I	C
ATOM	31	CD2	LEU	I	10	34.533	21.987	-0.316	1.00	47.41	I	C
ATOM	32	C	LEU	I	10	35.641	24.597	-3.910	1.00	45.94	I	C
ATOM	33	O	LEU	I	10	36.703	24.136	-4.306	1.00	44.31	I	O
ATOM	34	N	ARG	I	11	34.544	24.643	-4.689	1.00	45.74	I	N
ATOM	35	CA	ARG	I	11	34.605	24.150	-6.058	1.00	47.06	I	C
ATOM	36	CB	ARG	I	11	33.268	24.453	-6.736	1.00	50.47	I	C
ATOM	37	CG	ARG	I	11	33.168	23.828	-8.127	1.00	55.23	I	C
ATOM	38	CD	ARG	I	11	32.056	24.466	-8.967	1.00	59.66	I	C
ATOM	39	NE	ARG	I	11	32.248	24.165	-10.388	1.00	64.26	I	N
ATOM	40	CZ	ARG	I	11	31.352	23.350	-10.973	1.00	67.01	I	C
ATOM	41	NH1	ARG	I	11	30.187	23.118	-10.391	1.00	67.52	I	N
ATOM	42	NH2	ARG	I	11	31.638	22.791	-12.151	1.00	66.67	I	N
ATOM	43	C	ARG	I	11	35.750	24.793	-6.845	1.00	46.55	I	C
ATOM	44	O	ARG	I	11	36.517	24.134	-7.533	1.00	47.11	I	O
ATOM	45	N	GLU	I	12	35.823	26.135	-6.761	1.00	46.28	I	N
ATOM	46	CA	GLU	I	12	36.863	26.843	-7.497	1.00	45.52	I	C
ATOM	47	CB	GLU	I	12	36.654	28.346	-7.313	1.00	46.38	I	C
ATOM	48	CG	GLU	I	12	35.298	28.819	-7.850	1.00	49.26	I	C
ATOM	49	CD	GLU	I	12	35.349	28.900	-9.359	1.00	51.60	I	C
ATOM	50	OE1	GLU	I	12	36.412	29.179	-9.898	1.00	54.40	I	O
ATOM	51	OE2	GLU	I	12	34.312	28.700	-9.988	1.00	53.81	I	O
ATOM	52	C	GLU	I	12	38.261	26.436	-7.031	1.00	43.95	I	C
ATOM	53	O	GLU	I	12	39.205	26.341	-7.804	1.00	44.02	I	O
ATOM	54	N	LEU	I	13	38.395	26.233	-5.707	1.00	43.03	I	N
ATOM	55	CA	LEU	I	13	39.685	25.790	-5.186	1.00	43.21	I	C
ATOM	56	CB	LEU	I	13	39.623	25.788	-3.657	1.00	41.91	I	C
ATOM	57	CG	LEU	I	13	40.902	25.240	-3.027	1.00	43.10	I	C
ATOM	58	CD1	LEU	I	13	42.136	26.054	-3.419	1.00	40.08	I	C

	ATOM	59	CD2	LEU	I	13	40.855	25.238	-1.496	1.00	43.85	I C
	ATOM	60	C	LEU	I	13	40.035	24.389	-5.688	1.00	44.05	I C
	ATOM	61	O	LEU	I	13	41.146	24.103	-6.105	1.00	44.32	I O
	ATOM	62	N	ILE	I	14	39.045	23.485	-5.597	1.00	44.06	I N
5	ATOM	63	CA	ILE	I	14	39.276	22.125	-6.074	1.00	44.78	I C
	ATOM	64	CB	ILE	I	14	37.978	21.332	-5.907	1.00	42.05	I C
	ATOM	65	CG2	ILE	I	14	38.090	19.996	-6.653	1.00	41.67	I C
	ATOM	66	CG1	ILE	I	14	37.731	21.022	-4.430	1.00	39.88	I C
	ATOM	67	CD1	ILE	I	14	36.371	20.368	-4.199	1.00	38.79	I C
10	ATOM	68	C	ILE	I	14	39.708	22.115	-7.542	1.00	47.20	I C
	ATOM	69	O	ILE	I	14	40.558	21.340	-7.968	1.00	47.59	I O
	ATOM	70	N	GLU	I	15	39.070	22.994	-8.334	1.00	48.85	I N
	ATOM	71	CA	GLU	I	15	39.369	23.015	-9.761	1.00	51.76	I C
	ATOM	72	CB	GLU	I	15	38.372	23.943	-10.458	1.00	53.36	I C
15	ATOM	73	CG	GLU	I	15	36.969	23.340	-10.484	1.00	57.81	I C
	ATOM	74	CD	GLU	I	15	36.115	24.056	-11.508	1.00	61.60	I C
	ATOM	75	OE1	GLU	I	15	34.896	23.958	-11.425	1.00	63.74	I O
	ATOM	76	OE2	GLU	I	15	36.676	24.698	-12.394	1.00	64.24	I O
	ATOM	77	C	GLU	I	15	40.814	23.434	-10.041	1.00	52.17	I C
20	ATOM	78	O	GLU	I	15	41.514	22.839	-10.850	1.00	53.33	I O
	ATOM	79	N	GLU	I	16	41.252	24.510	-9.359	1.00	52.90	I N
	ATOM	80	CA	GLU	I	16	42.665	24.891	-9.466	1.00	52.55	I C
	ATOM	81	CB	GLU	I	16	42.895	26.165	-8.650	1.00	53.39	I C
	ATOM	82	CG	GLU	I	16	44.384	26.475	-8.463	1.00	54.58	I C
25	ATOM	83	CD	GLU	I	16	44.954	27.031	-9.751	1.00	56.47	I C
	ATOM	84	OE1	GLU	I	16	44.255	27.022	-10.754	1.00	56.93	I O
	ATOM	85	OE2	GLU	I	16	46.105	27.467	-9.741	1.00	56.71	I O
	ATOM	86	C	GLU	I	16	43.630	23.796	-9.001	1.00	51.84	I C
	ATOM	87	O	GLU	I	16	44.655	23.523	-9.623	1.00	50.16	I O
30	ATOM	88	N	LEU	I	17	43.323	23.187	-7.842	1.00	53.85	I N
	ATOM	89	CA	LEU	I	17	44.193	22.107	-7.389	1.00	54.85	I C
	ATOM	90	CB	LEU	I	17	43.658	21.562	-6.071	1.00	55.53	I C
	ATOM	91	CG	LEU	I	17	43.933	22.504	-4.894	1.00	57.93	I C
	ATOM	92	CD1	LEU	I	17	43.907	21.778	-3.551	1.00	58.04	I C
35	ATOM	93	CD2	LEU	I	17	45.303	23.190	-4.990	1.00	55.21	I C
	ATOM	94	C	LEU	I	17	44.287	20.988	-8.437	1.00	54.64	I C
	ATOM	95	O	LEU	I	17	45.326	20.369	-8.649	1.00	53.29	I O
	ATOM	96	N	VAL	I	18	43.134	20.699	-9.068	1.00	54.67	I N
	ATOM	97	CA	VAL	I	18	43.143	19.739	-10.170	1.00	56.02	I C
40	ATOM	98	CB	VAL	I	18	41.707	19.562	-10.669	1.00	55.67	I C
	ATOM	99	CG1	VAL	I	18	41.691	18.686	-11.919	1.00	54.36	I C
	ATOM	100	CG2	VAL	I	18	40.855	18.904	-9.603	1.00	54.26	I C
	ATOM	101	C	VAL	I	18	44.016	20.241	-11.309	1.00	56.81	I C
	ATOM	102	O	VAL	I	18	44.779	19.508	-11.927	1.00	56.49	I O
45	ATOM	103	N	ASN	I	19	43.865	21.537	-11.615	1.00	58.66	I N
	ATOM	104	CA	ASN	I	19	44.587	22.072	-12.767	1.00	60.24	I C
	ATOM	105	CB	ASN	I	19	44.243	23.553	-12.930	1.00	62.77	I C
	ATOM	106	CG	ASN	I	19	44.463	23.973	-14.361	1.00	66.30	I C
	ATOM	107	OD1	ASN	I	19	45.444	24.637	-14.697	1.00	66.87	I O
50	ATOM	108	ND2	ASN	I	19	43.491	23.599	-15.222	1.00	69.04	I N
	ATOM	109	C	ASN	I	19	46.106	21.874	-12.654	1.00	60.76	I C
	ATOM	110	O	ASN	I	19	46.760	21.386	-13.559	1.00	61.67	I O
	ATOM	111	N	ILE	I	20	46.681	22.301	-11.506	1.00	60.66	I N
	ATOM	112	CA	ILE	I	20	48.133	22.233	-11.369	1.00	61.31	I C
55	ATOM	113	CB	ILE	I	20	48.598	23.170	-10.239	1.00	59.89	I C
	ATOM	114	CG2	ILE	I	20	48.081	24.601	-10.471	1.00	59.08	I C
	ATOM	115	CG1	ILE	I	20	48.081	22.695	-8.882	1.00	58.35	I C
	ATOM	116	CD1	ILE	I	20	48.507	23.649	-7.757	1.00	53.99	I C
	ATOM	117	C	ILE	I	20	48.665	20.804	-11.140	1.00	62.24	I C
60	ATOM	118	O	ILE	I	20	49.846	20.527	-11.286	1.00	62.82	I O
	ATOM	119	N	THR	I	21	47.766	19.884	-10.725	1.00	64.13	I N

	ATOM	120	CA	THR	I	21	48.272	18.536	-10.475	1.00	67.05	I	C
	ATOM	121	CB	THR	I	21	47.515	17.934	-9.292	1.00	65.01	I	C
	ATOM	122	OG1	THR	I	21	46.110	18.119	-9.493	1.00	65.20	I	O
	ATOM	123	CG2	THR	I	21	47.934	18.634	-7.998	1.00	64.13	I	C
5	ATOM	124	C	THR	I	21	48.149	17.601	-11.686	1.00	69.94	I	C
	ATOM	125	O	THR	I	21	48.386	16.404	-11.597	1.00	70.16	I	O
	ATOM	126	N	GLN	I	22	47.717	18.156	-12.833	1.00	74.84	I	N
	ATOM	127	CA	GLN	I	22	47.796	17.344	-14.039	1.00	79.56	I	C
	ATOM	128	CB	GLN	I	22	47.563	18.242	-15.257	1.00	79.69	I	C
10	ATOM	129	CG	GLN	I	22	46.107	18.696	-15.411	1.00	82.15	I	C
	ATOM	130	CD	GLN	I	22	46.038	19.891	-16.340	1.00	84.37	I	C
	ATOM	131	OE1	GLN	I	22	46.743	20.011	-17.331	1.00	85.68	I	O
	ATOM	132	NE2	GLN	I	22	45.095	20.790	-15.993	1.00	84.96	I	N
	ATOM	133	C	GLN	I	22	49.182	16.717	-14.144	1.00	82.23	I	C
15	ATOM	134	O	GLN	I	22	50.208	17.384	-14.054	1.00	82.99	I	O
	ATOM	135	N	ASN	I	23	49.204	15.378	-14.279	1.00	85.10	I	N
	ATOM	136	CA	ASN	I	23	50.502	14.740	-14.456	1.00	87.69	I	C
	ATOM	137	CB	ASN	I	23	50.318	13.225	-14.479	1.00	89.46	I	C
	ATOM	138	CG	ASN	I	23	49.344	12.907	-15.579	1.00	91.98	I	C
20	ATOM	139	OD1	ASN	I	23	48.554	13.754	-15.992	1.00	93.28	I	O
	ATOM	140	ND2	ASN	I	23	49.394	11.647	-16.047	1.00	92.89	I	N
	ATOM	141	C	ASN	I	23	51.177	15.233	-15.731	1.00	88.20	I	C
	ATOM	142	O	ASN	I	23	52.391	15.348	-15.826	1.00	88.08	I	O
	ATOM	143	N	ASN	I	24	50.337	15.517	-16.746	1.00	88.98	I	N
25	ATOM	144	CA	ASN	I	24	50.868	16.147	-17.953	1.00	89.45	I	C
	ATOM	145	CB	ASN	I	24	49.697	16.736	-18.743	1.00	89.76	I	C
	ATOM	146	CG	ASN	I	24	48.615	15.708	-18.883	1.00	90.73	I	C
	ATOM	147	OD1	ASN	I	24	47.436	16.026	-19.024	1.00	91.03	I	O
	ATOM	148	ND2	ASN	I	24	49.058	14.445	-18.938	1.00	90.98	I	N
30	ATOM	149	C	ASN	I	24	51.783	17.295	-17.596	1.00	89.22	I	C
	ATOM	150	O	ASN	I	24	52.769	17.586	-18.259	1.00	89.67	I	O
	ATOM	151	N	LYS	I	25	51.384	18.011	-16.541	1.00	88.77	I	N
	ATOM	152	CA	LYS	I	25	52.011	19.292	-16.317	1.00	88.13	I	C
	ATOM	153	CB	LYS	I	25	51.236	20.073	-15.261	1.00	87.83	I	C
35	ATOM	154	CG	LYS	I	25	50.573	21.287	-15.901	1.00	88.09	I	C
	ATOM	155	CD	LYS	I	25	49.298	21.716	-15.180	1.00	87.96	I	C
	ATOM	156	CE	LYS	I	25	48.765	23.021	-15.758	1.00	87.47	I	C
	ATOM	157	NZ	LYS	I	25	47.511	23.383	-15.112	1.00	87.86	I	N
	ATOM	158	C	LYS	I	25	53.479	19.177	-15.941	1.00	87.88	I	C
40	ATOM	159	O	LYS	I	25	54.359	19.464	-16.732	1.00	87.93	I	O
	ATOM	160	N	ALA	I	26	53.727	18.768	-14.680	1.00	87.24	I	N
	ATOM	161	CA	ALA	I	26	55.097	18.639	-14.190	1.00	87.03	I	C
	ATOM	162	CB	ALA	I	26	55.920	19.773	-14.793	1.00	86.82	I	C
	ATOM	163	C	ALA	I	26	55.156	18.728	-12.659	1.00	86.17	I	C
45	ATOM	164	O	ALA	I	26	54.261	19.236	-12.003	1.00	86.49	I	O
	ATOM	165	N	PRO	I	27	56.230	18.158	-12.104	1.00	85.00	I	N
	ATOM	166	CD	PRO	I	27	57.357	17.502	-12.756	1.00	84.74	I	C
	ATOM	167	CA	PRO	I	27	56.407	18.123	-10.655	1.00	83.68	I	C
	ATOM	168	CB	PRO	I	27	57.843	17.707	-10.383	1.00	84.54	I	C
50	ATOM	169	CG	PRO	I	27	58.352	16.974	-11.621	1.00	85.05	I	C
	ATOM	170	C	PRO	I	27	56.115	19.479	-10.015	1.00	82.78	I	C
	ATOM	171	O	PRO	I	27	56.807	20.461	-10.226	1.00	82.59	I	O
	ATOM	172	N	LEU	I	28	55.012	19.496	-9.237	1.00	81.31	I	N
	ATOM	173	CA	LEU	I	28	54.588	20.743	-8.605	1.00	79.53	I	C
55	ATOM	174	CB	LEU	I	28	53.272	20.461	-7.864	1.00	79.22	I	C
	ATOM	175	CG	LEU	I	28	52.572	21.747	-7.428	1.00	78.56	I	C
	ATOM	176	CD1	LEU	I	28	52.267	22.680	-8.604	1.00	79.42	I	C
	ATOM	177	CD2	LEU	I	28	51.238	21.483	-6.732	1.00	78.52	I	C
	ATOM	178	C	LEU	I	28	55.648	21.319	-7.638	1.00	78.97	I	C
60	ATOM	179	O	LEU	I	28	55.966	20.770	-6.599	1.00	78.25	I	O
	ATOM	180	N	CYS	I	29	56.233	22.451	-8.080	1.00	78.37	I	N

ATOM	181	CA	CYS	I	29	57.063	23.311	-7.222	1.00	78.80	I	C
ATOM	182	C	CYS	I	29	58.558	22.927	-7.126	1.00	79.64	I	C
ATOM	183	O	CYS	I	29	59.399	23.724	-6.710	1.00	81.19	I	O
ATOM	184	CB	CYS	I	29	56.387	23.648	-5.869	1.00	78.02	I	C
ATOM	185	SG	CYS	I	29	55.321	25.110	-5.991	1.00	79.53	I	S
ATOM	186	N	ALA	I	30	58.833	21.638	-7.488	1.00	79.61	I	N
ATOM	187	CA	ALA	I	30	60.144	21.242	-8.025	1.00	79.88	I	C
ATOM	188	CB	ALA	I	30	60.819	22.492	-8.580	1.00	79.91	I	C
ATOM	189	C	ALA	I	30	61.080	20.547	-7.032	1.00	79.67	I	C
ATOM	190	O	ALA	I	30	62.298	20.718	-7.049	1.00	80.11	I	O
ATOM	191	N	GLY	I	31	60.482	19.717	-6.179	1.00	79.21	I	N
ATOM	192	CA	GLY	I	31	61.112	19.428	-4.906	1.00	79.39	I	C
ATOM	193	C	GLY	I	31	60.344	20.181	-3.821	1.00	78.91	I	C
ATOM	194	O	GLY	I	31	59.220	19.845	-3.484	1.00	80.31	I	O
ATOM	195	N	SER	I	32	60.988	21.238	-3.271	1.00	77.08	I	N
ATOM	196	CA	SER	I	32	60.317	22.073	-2.255	1.00	75.27	I	C
ATOM	197	CB	SER	I	32	59.382	23.064	-2.969	1.00	76.77	I	C
ATOM	198	OG	SER	I	32	60.013	24.342	-3.017	1.00	80.23	I	O
ATOM	199	C	SER	I	32	59.517	21.252	-1.233	1.00	73.51	I	C
ATOM	200	O	SER	I	32	58.519	20.628	-1.553	1.00	73.95	I	O
ATOM	201	N	MET	I	33	59.990	21.253	0.035	1.00	71.50	I	N
ATOM	202	CA	MET	I	33	59.323	20.420	1.043	1.00	68.96	I	C
ATOM	203	CB	MET	I	33	60.384	19.555	1.713	1.00	69.85	I	C
ATOM	204	CG	MET	I	33	61.259	18.852	0.686	1.00	70.72	I	C
ATOM	205	SD	MET	I	33	60.793	17.138	0.458	1.00	73.74	I	S
ATOM	206	CE	MET	I	33	61.652	16.452	1.874	1.00	72.51	I	C
ATOM	207	C	MET	I	33	58.580	21.248	2.085	1.00	66.87	I	C
ATOM	208	O	MET	I	33	59.084	22.195	2.664	1.00	67.96	I	O
ATOM	209	N	VAL	I	34	57.293	20.874	2.281	1.00	64.12	I	N
ATOM	210	CA	VAL	I	34	56.489	21.588	3.270	1.00	62.22	I	C
ATOM	211	CB	VAL	I	34	55.262	22.183	2.578	1.00	62.02	I	C
ATOM	212	CG1	VAL	I	34	55.684	23.296	1.626	1.00	60.10	I	C
ATOM	213	CG2	VAL	I	34	54.532	21.107	1.800	1.00	58.25	I	C
ATOM	214	C	VAL	I	34	56.029	20.700	4.450	1.00	62.11	I	C
ATOM	215	O	VAL	I	34	56.054	19.479	4.372	1.00	61.47	I	O
ATOM	216	N	TRP	I	35	55.618	21.355	5.548	1.00	61.68	I	N
ATOM	217	CA	TRP	I	35	55.103	20.602	6.682	1.00	62.60	I	C
ATOM	218	CB	TRP	I	35	54.958	21.567	7.862	1.00	63.98	I	C
ATOM	219	CG	TRP	I	35	56.272	22.146	8.225	1.00	66.88	I	C
ATOM	220	CD2	TRP	I	35	57.297	21.517	9.027	1.00	67.70	I	C
ATOM	221	CE2	TRP	I	35	58.343	22.460	9.190	1.00	68.28	I	C
ATOM	222	CE3	TRP	I	35	57.413	20.260	9.614	1.00	68.19	I	C
ATOM	223	CD1	TRP	I	35	56.738	23.441	7.917	1.00	66.99	I	C
ATOM	224	NE1	TRP	I	35	57.957	23.700	8.466	1.00	67.36	I	N
ATOM	225	CZ2	TRP	I	35	59.461	22.131	9.942	1.00	69.16	I	C
ATOM	226	CZ3	TRP	I	35	58.531	19.930	10.361	1.00	68.91	I	C
ATOM	227	CH2	TRP	I	35	59.566	20.873	10.520	1.00	69.23	I	C
ATOM	228	C	TRP	I	35	53.742	19.994	6.356	1.00	62.37	I	C
ATOM	229	O	TRP	I	35	52.840	20.652	5.855	1.00	62.15	I	O
ATOM	230	N	SER	I	36	53.617	18.680	6.609	1.00	61.20	I	N
ATOM	231	CA	SER	I	36	52.275	18.095	6.574	1.00	61.84	I	C
ATOM	232	CB	SER	I	36	52.414	16.571	6.702	1.00	62.31	I	C
ATOM	233	OG	SER	I	36	52.742	16.233	8.048	1.00	65.85	I	O
ATOM	234	C	SER	I	36	51.383	18.640	7.689	1.00	60.45	I	C
ATOM	235	O	SER	I	36	51.831	19.023	8.763	1.00	60.13	I	O
ATOM	236	N	ILE	I	37	50.069	18.705	7.388	1.00	60.87	I	N
ATOM	237	CA	ILE	I	37	49.138	19.284	8.348	1.00	62.76	I	C
ATOM	238	CB	ILE	I	37	48.525	20.527	7.703	1.00	60.98	I	C
ATOM	239	CG2	ILE	I	37	49.641	21.486	7.246	1.00	60.58	I	C
ATOM	240	CG1	ILE	I	37	47.726	20.118	6.461	1.00	61.47	I	C
ATOM	241	CD1	ILE	I	37	46.656	21.150	6.106	1.00	63.20	I	C

ATOM	242	C	ILE	I	37	48.015	18.316	8.735	1.00	64.55	I	C
ATOM	243	O	ILE	I	37	47.844	17.247	8.163	1.00	64.40	I	O
ATOM	244	N	ASN	I	38	47.249	18.723	9.757	1.00	67.19	I	N
ATOM	245	CA	ASN	I	38	46.117	17.915	10.192	1.00	69.16	I	C
ATOM	246	CB	ASN	I	38	45.872	18.200	11.675	1.00	71.48	I	C
ATOM	247	CG	ASN	I	38	46.010	16.925	12.468	1.00	74.53	I	C
ATOM	248	OD1	ASN	I	38	45.727	16.866	13.660	1.00	76.30	I	O
ATOM	249	ND2	ASN	I	38	46.427	15.862	11.758	1.00	76.89	I	N
ATOM	250	C	ASN	I	38	44.853	18.237	9.387	1.00	70.38	I	C
ATOM	251	O	ASN	I	38	44.318	19.337	9.422	1.00	70.94	I	O
ATOM	252	N	LEU	I	39	44.401	17.230	8.613	1.00	71.67	I	N
ATOM	253	CA	LEU	I	39	43.191	17.403	7.817	1.00	73.26	I	C
ATOM	254	CB	LEU	I	39	43.216	16.369	6.691	1.00	71.42	I	C
ATOM	255	CG	LEU	I	39	44.416	16.557	5.761	1.00	70.72	I	C
ATOM	256	CD1	LEU	I	39	44.567	15.415	4.753	1.00	69.87	I	C
ATOM	257	CD2	LEU	I	39	44.331	17.845	4.944	1.00	68.56	I	C
ATOM	258	C	LEU	I	39	41.924	17.225	8.662	1.00	74.76	I	C
ATOM	259	O	LEU	I	39	40.887	16.763	8.201	1.00	75.68	I	O
ATOM	260	N	THR	I	40	42.048	17.574	9.956	1.00	76.50	I	N
ATOM	261	CA	THR	I	40	40.904	17.441	10.850	1.00	78.43	I	C
ATOM	262	CB	THR	I	40	41.422	17.074	12.241	1.00	78.89	I	C
ATOM	263	OG1	THR	I	40	40.752	17.875	13.216	1.00	80.37	I	O
ATOM	264	CG2	THR	I	40	42.926	17.345	12.328	1.00	80.30	I	C
ATOM	265	C	THR	I	40	40.086	18.734	10.919	1.00	78.70	I	C
ATOM	266	O	THR	I	40	38.886	18.762	10.684	1.00	80.14	I	O
ATOM	267	N	ALA	I	41	40.775	19.826	11.301	1.00	77.65	I	N
ATOM	268	CA	ALA	I	41	40.097	21.115	11.376	1.00	76.51	I	C
ATOM	269	CB	ALA	I	41	39.375	21.199	12.721	1.00	77.98	I	C
ATOM	270	C	ALA	I	41	41.083	22.276	11.238	1.00	75.39	I	C
ATOM	271	O	ALA	I	41	42.295	22.105	11.220	1.00	76.85	I	O
ATOM	272	N	GLY	I	42	40.522	23.491	11.101	1.00	72.26	I	N
ATOM	273	CA	GLY	I	42	41.385	24.649	10.911	1.00	67.39	I	C
ATOM	274	C	GLY	I	42	42.460	24.359	9.862	1.00	65.34	I	C
ATOM	275	O	GLY	I	42	43.566	24.883	9.890	1.00	63.64	I	O
ATOM	276	N	MET	I	43	42.109	23.451	8.934	1.00	62.58	I	N
ATOM	277	CA	MET	I	43	43.066	23.063	7.907	1.00	61.81	I	C
ATOM	278	CB	MET	I	43	42.560	21.786	7.235	1.00	64.31	I	C
ATOM	279	CG	MET	I	43	42.556	21.887	5.709	1.00	67.10	I	C
ATOM	280	SD	MET	I	43	40.973	21.412	5.002	1.00	73.29	I	S
ATOM	281	CE	MET	I	43	41.014	22.487	3.561	1.00	70.95	I	C
ATOM	282	C	MET	I	43	43.264	24.166	6.865	1.00	58.78	I	C
ATOM	283	O	MET	I	43	44.344	24.362	6.323	1.00	59.66	I	O
ATOM	284	N	TYR	I	44	42.164	24.878	6.554	1.00	54.94	I	N
ATOM	285	CA	TYR	I	44	42.293	25.974	5.602	1.00	50.88	I	C
ATOM	286	CB	TYR	I	44	40.996	26.785	5.604	1.00	51.73	I	C
ATOM	287	CG	TYR	I	44	40.009	26.173	4.671	1.00	51.67	I	C
ATOM	288	CD1	TYR	I	44	40.411	25.757	3.403	1.00	51.08	I	C
ATOM	289	CE1	TYR	I	44	39.505	25.139	2.552	1.00	51.62	I	C
ATOM	290	CD2	TYR	I	44	38.687	25.980	5.071	1.00	51.42	I	C
ATOM	291	CE2	TYR	I	44	37.779	25.371	4.217	1.00	52.73	I	C
ATOM	292	CZ	TYR	I	44	38.183	24.952	2.963	1.00	53.13	I	C
ATOM	293	OH	TYR	I	44	37.296	24.302	2.126	1.00	54.49	I	O
ATOM	294	C	TYR	I	44	43.479	26.869	5.967	1.00	48.15	I	C
ATOM	295	O	TYR	I	44	44.371	27.131	5.170	1.00	45.25	I	O
ATOM	296	N	CYS	I	45	43.454	27.370	7.216	1.00	48.39	I	N
ATOM	297	CA	CYS	I	45	44.568	28.192	7.674	1.00	49.37	I	C
ATOM	298	C	CYS	I	45	45.863	27.379	7.767	1.00	49.62	I	C
ATOM	299	O	CYS	I	45	46.953	27.854	7.477	1.00	48.36	I	O
ATOM	300	CB	CYS	I	45	44.212	28.771	9.046	1.00	51.15	I	C
ATOM	301	SG	CYS	I	45	42.721	29.792	8.999	1.00	56.43	I	S
ATOM	302	N	ALA	I	46	45.720	26.119	8.223	1.00	49.15	I	N

ATOM	303	CA	ALA	I	46	46.898	25.272	8.376	1.00	47.97	I	C
ATOM	304	CB	ALA	I	46	46.475	23.966	9.051	1.00	47.77	I	C
ATOM	305	C	ALA	I	46	47.575	24.978	7.032	1.00	47.47	I	C
ATOM	306	O	ALA	I	46	48.792	24.976	6.904	1.00	47.08	I	O
ATOM	307	N	ALA	I	47	46.743	24.679	6.016	1.00	45.70	I	N
ATOM	308	CA	ALA	I	47	47.304	24.448	4.690	1.00	46.29	I	C
ATOM	309	CB	ALA	I	47	46.187	23.965	3.764	1.00	44.99	I	C
ATOM	310	C	ALA	I	47	47.937	25.724	4.131	1.00	46.25	I	C
ATOM	311	O	ALA	I	47	48.926	25.704	3.410	1.00	46.92	I	O
ATOM	312	N	LEU	I	48	47.298	26.864	4.459	1.00	45.80	I	N
ATOM	313	CA	LEU	I	48	47.863	28.149	4.062	1.00	44.83	I	C
ATOM	314	CB	LEU	I	48	46.891	29.252	4.496	1.00	43.51	I	C
ATOM	315	CG	LEU	I	48	47.494	30.657	4.381	1.00	42.29	I	C
ATOM	316	CD1	LEU	I	48	47.729	31.076	2.928	1.00	39.28	I	C
ATOM	317	CD2	LEU	I	48	46.606	31.740	4.998	1.00	41.45	I	C
ATOM	318	C	LEU	I	48	49.228	28.368	4.720	1.00	45.57	I	C
ATOM	319	O	LEU	I	48	50.204	28.759	4.093	1.00	45.62	I	O
ATOM	320	N	GLU	I	49	49.255	28.124	6.044	1.00	46.20	I	N
ATOM	321	CA	GLU	I	49	50.467	28.352	6.822	1.00	47.25	I	C
ATOM	322	CB	GLU	I	49	50.132	28.090	8.289	1.00	49.57	I	C
ATOM	323	CG	GLU	I	49	49.443	29.283	8.946	1.00	51.32	I	C
ATOM	324	CD	GLU	I	49	50.461	30.375	9.167	1.00	54.88	I	C
ATOM	325	OE1	GLU	I	49	51.143	30.341	10.181	1.00	58.35	I	O
ATOM	326	OE2	GLU	I	49	50.587	31.239	8.300	1.00	53.85	I	O
ATOM	327	C	GLU	I	49	51.617	27.442	6.388	1.00	48.23	I	C
ATOM	328	O	GLU	I	49	52.779	27.652	6.718	1.00	49.06	I	O
ATOM	329	N	SER	I	50	51.255	26.371	5.662	1.00	48.38	I	N
ATOM	330	CA	SER	I	50	52.363	25.494	5.298	1.00	48.77	I	C
ATOM	331	CB	SER	I	50	51.909	24.047	5.493	1.00	49.02	I	C
ATOM	332	OG	SER	I	50	52.793	23.175	4.786	1.00	49.21	I	O
ATOM	333	C	SER	I	50	52.802	25.712	3.847	1.00	48.18	I	C
ATOM	334	O	SER	I	50	53.961	25.559	3.484	1.00	48.73	I	O
ATOM	335	N	LEU	I	51	51.812	26.041	2.997	1.00	47.10	I	N
ATOM	336	CA	LEU	I	51	52.118	26.266	1.589	1.00	47.89	I	C
ATOM	337	CB	LEU	I	51	50.821	26.119	0.793	1.00	46.69	I	C
ATOM	338	CG	LEU	I	51	50.533	24.668	0.401	1.00	49.04	I	C
ATOM	339	CD1	LEU	I	51	49.442	24.556	-0.665	1.00	50.21	I	C
ATOM	340	CD2	LEU	I	51	51.760	23.952	-0.165	1.00	46.43	I	C
ATOM	341	C	LEU	I	51	52.712	27.658	1.358	1.00	48.63	I	C
ATOM	342	O	LEU	I	51	53.188	27.996	0.282	1.00	48.41	I	O
ATOM	343	N	ILE	I	52	52.637	28.491	2.413	1.00	49.30	I	N
ATOM	344	CA	ILE	I	52	53.124	29.859	2.285	1.00	50.61	I	C
ATOM	345	CB	ILE	I	52	52.519	30.688	3.419	1.00	49.79	I	C
ATOM	346	CG2	ILE	I	52	53.293	30.428	4.724	1.00	49.21	I	C
ATOM	347	CG1	ILE	I	52	52.627	32.181	3.098	1.00	48.59	I	C
ATOM	348	CD1	ILE	I	52	52.045	32.525	1.727	1.00	45.04	I	C
ATOM	349	C	ILE	I	52	54.652	29.931	2.341	1.00	51.05	I	C
ATOM	350	O	ILE	I	52	55.268	30.958	2.087	1.00	53.83	I	O
ATOM	351	N	ASN	I	53	55.265	28.798	2.730	1.00	51.02	I	N
ATOM	352	CA	ASN	I	53	56.720	28.765	2.818	1.00	51.33	I	C
ATOM	353	CB	ASN	I	53	57.111	27.732	3.876	1.00	47.60	I	C
ATOM	354	CG	ASN	I	53	56.768	28.261	5.244	1.00	47.65	I	C
ATOM	355	OD1	ASN	I	53	57.029	29.413	5.578	1.00	46.87	I	O
ATOM	356	ND2	ASN	I	53	56.161	27.379	6.056	1.00	45.54	I	N
ATOM	357	C	ASN	I	53	57.360	28.407	1.475	1.00	53.53	I	C
ATOM	358	O	ASN	I	53	58.573	28.418	1.313	1.00	55.03	I	O
ATOM	359	N	VAL	I	54	56.533	28.020	0.484	1.00	55.95	I	N
ATOM	360	CA	VAL	I	54	57.100	27.653	-0.810	1.00	57.77	I	C
ATOM	361	CB	VAL	I	54	55.997	27.031	-1.665	1.00	56.62	I	C
ATOM	362	CG1	VAL	I	54	56.544	26.690	-3.050	1.00	53.96	I	C
ATOM	363	CG2	VAL	I	54	55.484	25.765	-1.006	1.00	57.42	I	C

	ATOM	364	C	VAL	I	54	57.696	28.866	-1.528	1.00	59.21	I	C
	ATOM	365	O	VAL	I	54	57.025	29.846	-1.826	1.00	60.15	I	O
	ATOM	366	N	SER	I	55	59.016	28.790	-1.772	1.00	60.64	I	N
	ATOM	367	CA	SER	I	55	59.701	29.918	-2.390	1.00	63.25	I	C
5	ATOM	368	CB	SER	I	55	61.060	30.076	-1.702	1.00	62.79	I	C
	ATOM	369	OG	SER	I	55	61.384	31.463	-1.600	1.00	63.77	I	O
	ATOM	370	C	SER	I	55	59.902	29.717	-3.895	1.00	63.87	I	C
	ATOM	371	O	SER	I	55	60.192	28.631	-4.378	1.00	64.14	I	O
	ATOM	372	N	GLY	I	56	59.683	30.814	-4.647	1.00	65.44	I	N
10	ATOM	373	CA	GLY	I	56	60.020	30.814	-6.068	1.00	67.00	I	C
	ATOM	374	C	GLY	I	56	59.271	29.742	-6.869	1.00	67.92	I	C
	ATOM	375	O	GLY	I	56	59.850	28.975	-7.626	1.00	68.15	I	O
	ATOM	376	N	CYS	I	57	57.942	29.687	-6.661	1.00	68.54	I	N
	ATOM	377	CA	CYS	I	57	57.166	28.788	-7.503	1.00	68.81	I	C
15	ATOM	378	C	CYS	I	57	55.803	29.402	-7.865	1.00	67.61	I	C
	ATOM	379	O	CYS	I	57	55.028	29.826	-7.003	1.00	66.76	I	O
	ATOM	380	CB	CYS	I	57	56.999	27.498	-6.693	1.00	70.76	I	C
	ATOM	381	SG	CYS	I	57	56.071	26.192	-7.524	1.00	75.77	I	S
	ATOM	382	N	SER	I	58	55.726	29.762	-9.162	1.00	65.88	I	N
20	ATOM	383	CA	SER	I	58	54.578	30.538	-9.626	1.00	65.26	I	C
	ATOM	384	CB	SER	I	58	54.958	31.236	-10.936	1.00	65.56	I	C
	ATOM	385	OG	SER	I	58	55.073	30.270	-11.982	1.00	66.55	I	O
	ATOM	386	C	SER	I	58	53.319	29.687	-9.825	1.00	64.15	I	C
	ATOM	387	O	SER	I	58	52.266	30.169	-10.222	1.00	63.50	I	O
25	ATOM	388	N	ALA	I	59	53.455	28.375	-9.562	1.00	62.82	I	N
	ATOM	389	CA	ALA	I	59	52.326	27.484	-9.813	1.00	62.09	I	C
	ATOM	390	CB	ALA	I	59	52.868	26.101	-10.175	1.00	61.09	I	C
	ATOM	391	C	ALA	I	59	51.366	27.384	-8.621	1.00	62.03	I	C
	ATOM	392	O	ALA	I	59	50.187	27.091	-8.765	1.00	61.38	I	O
30	ATOM	393	N	ILE	I	60	51.906	27.598	-7.403	1.00	60.60	I	N
	ATOM	394	CA	ILE	I	60	51.033	27.514	-6.233	1.00	61.29	I	C
	ATOM	395	CB	ILE	I	60	51.743	26.744	-5.117	1.00	62.02	I	C
	ATOM	396	CG2	ILE	I	60	51.257	25.284	-5.096	1.00	61.63	I	C
	ATOM	397	CG1	ILE	I	60	53.256	26.741	-5.334	1.00	62.92	I	C
35	ATOM	398	CD1	ILE	I	60	53.948	27.890	-4.598	1.00	65.77	I	C
	ATOM	399	C	ILE	I	60	50.602	28.887	-5.721	1.00	60.92	I	C
	ATOM	400	O	ILE	I	60	49.867	29.018	-4.752	1.00	60.67	I	O
	ATOM	401	N	GLU	I	61	51.112	29.943	-6.377	1.00	60.36	I	N
	ATOM	402	CA	GLU	I	61	50.752	31.274	-5.910	1.00	59.69	I	C
40	ATOM	403	CB	GLU	I	61	51.397	32.318	-6.823	1.00	62.53	I	C
	ATOM	404	CG	GLU	I	61	52.373	33.217	-6.060	1.00	68.64	I	C
	ATOM	405	CD	GLU	I	61	52.334	34.612	-6.640	1.00	71.66	I	C
	ATOM	406	OE1	GLU	I	61	51.637	35.456	-6.093	1.00	72.04	I	O
	ATOM	407	OE2	GLU	I	61	53.018	34.848	-7.635	1.00	74.33	I	O
45	ATOM	408	C	GLU	I	61	49.231	31.460	-5.849	1.00	57.43	I	C
	ATOM	409	O	GLU	I	61	48.677	31.954	-4.877	1.00	56.73	I	O
	ATOM	410	N	LYS	I	62	48.550	31.067	-6.943	1.00	55.24	I	N
	ATOM	411	CA	LYS	I	62	47.096	31.204	-6.956	1.00	54.11	I	C
	ATOM	412	CB	LYS	I	62	46.570	30.752	-8.319	1.00	54.42	I	C
50	ATOM	413	CG	LYS	I	62	45.070	31.016	-8.470	1.00	55.70	I	C
	ATOM	414	CD	LYS	I	62	44.591	30.848	-9.912	1.00	57.84	I	C
	ATOM	415	CE	LYS	I	62	43.078	30.621	-10.004	1.00	58.76	I	C
	ATOM	416	NZ	LYS	I	62	42.630	30.836	-11.379	1.00	59.46	I	N
	ATOM	417	C	LYS	I	62	46.431	30.389	-5.842	1.00	51.70	I	C
55	ATOM	418	O	LYS	I	62	45.442	30.790	-5.243	1.00	51.21	I	O
	ATOM	419	N	THR	I	63	46.985	29.185	-5.602	1.00	49.68	I	N
	ATOM	420	CA	THR	I	63	46.452	28.355	-4.525	1.00	49.40	I	C
	ATOM	421	CB	THR	I	63	47.196	27.021	-4.530	1.00	49.66	I	C
	ATOM	422	OG1	THR	I	63	46.853	26.299	-5.714	1.00	49.02	I	O
60	ATOM	423	CG2	THR	I	63	46.782	26.192	-3.310	1.00	48.32	I	C
	ATOM	424	C	THR	I	63	46.625	29.037	-3.168	1.00	49.94	I	C

ATOM	425	O	THR	I	63	45.750	29.030	-2.312	1.00	49.16	I	O
ATOM	426	N	GLN	I	64	47.828	29.601	-2.971	1.00	50.00	I	N
ATOM	427	CA	GLN	I	64	48.064	30.380	-1.766	1.00	49.18	I	C
ATOM	428	CB	GLN	I	64	49.444	31.026	-1.889	1.00	49.56	I	C
ATOM	429	CG	GLN	I	64	50.577	30.038	-1.627	1.00	50.10	I	C
ATOM	430	CD	GLN	I	64	51.901	30.746	-1.780	1.00	51.30	I	C
ATOM	431	OE1	GLN	I	64	52.056	31.717	-2.504	1.00	53.24	I	O
ATOM	432	NE2	GLN	I	64	52.891	30.211	-1.040	1.00	47.60	I	N
ATOM	433	C	GLN	I	64	47.004	31.469	-1.597	1.00	49.30	I	C
ATOM	434	O	GLN	I	64	46.492	31.724	-0.516	1.00	50.23	I	O
ATOM	435	N	ARG	I	65	46.702	32.147	-2.718	1.00	49.37	I	N
ATOM	436	CA	ARG	I	65	45.771	33.263	-2.639	1.00	49.52	I	C
ATOM	437	CB	ARG	I	65	45.892	34.095	-3.919	1.00	52.37	I	C
ATOM	438	CG	ARG	I	65	47.116	35.013	-3.869	1.00	55.43	I	C
ATOM	439	CD	ARG	I	65	47.199	35.977	-5.060	1.00	58.20	I	C
ATOM	440	NE	ARG	I	65	47.732	37.273	-4.625	1.00	61.26	I	N
ATOM	441	CZ	ARG	I	65	49.032	37.535	-4.870	1.00	60.37	I	C
ATOM	442	NH1	ARG	I	65	49.771	36.671	-5.541	1.00	62.13	I	N
ATOM	443	NH2	ARG	I	65	49.595	38.624	-4.337	1.00	59.84	I	N
ATOM	444	C	ARG	I	65	44.329	32.802	-2.402	1.00	47.23	I	C
ATOM	445	O	ARG	I	65	43.526	33.477	-1.771	1.00	46.87	I	O
ATOM	446	N	MET	I	66	43.996	31.620	-2.951	1.00	45.98	I	N
ATOM	447	CA	MET	I	66	42.650	31.105	-2.732	1.00	45.22	I	C
ATOM	448	CB	MET	I	66	42.402	29.953	-3.705	1.00	46.64	I	C
ATOM	449	CG	MET	I	66	42.429	30.420	-5.162	1.00	48.54	I	C
ATOM	450	SD	MET	I	66	42.132	29.076	-6.318	1.00	52.12	I	S
ATOM	451	CE	MET	I	66	40.419	29.463	-6.708	1.00	51.79	I	C
ATOM	452	C	MET	I	66	42.443	30.649	-1.284	1.00	43.95	I	C
ATOM	453	O	MET	I	66	41.389	30.829	-0.688	1.00	41.50	I	O
ATOM	454	N	LEU	I	67	43.485	30.009	-0.723	1.00	42.00	I	N
ATOM	455	CA	LEU	I	67	43.402	29.630	0.683	1.00	42.22	I	C
ATOM	456	CB	LEU	I	67	44.658	28.838	1.046	1.00	42.57	I	C
ATOM	457	CG	LEU	I	67	44.687	27.464	0.376	1.00	44.35	I	C
ATOM	458	CD1	LEU	I	67	46.052	26.785	0.490	1.00	41.18	I	C
ATOM	459	CD2	LEU	I	67	43.670	26.491	0.974	1.00	42.25	I	C
ATOM	460	C	LEU	I	67	43.271	30.860	1.583	1.00	41.42	I	C
ATOM	461	O	LEU	I	67	42.550	30.875	2.572	1.00	39.85	I	O
ATOM	462	N	SER	I	68	44.034	31.912	1.231	1.00	42.67	I	N
ATOM	463	CA	SER	I	68	43.913	33.155	1.981	1.00	43.98	I	C
ATOM	464	CB	SER	I	68	44.801	34.206	1.314	1.00	43.69	I	C
ATOM	465	OG	SER	I	68	46.159	33.765	1.351	1.00	46.45	I	O
ATOM	466	C	SER	I	68	42.460	33.632	2.008	1.00	44.59	I	C
ATOM	467	O	SER	I	68	41.994	34.271	2.942	1.00	44.55	I	O
ATOM	468	N	GLY	I	69	41.747	33.322	0.909	1.00	45.22	I	N
ATOM	469	CA	GLY	I	69	40.335	33.675	0.838	1.00	46.25	I	C
ATOM	470	C	GLY	I	69	39.526	32.989	1.942	1.00	48.08	I	C
ATOM	471	O	GLY	I	69	38.600	33.548	2.515	1.00	48.24	I	O
ATOM	472	N	PHE	I	70	39.880	31.716	2.206	1.00	48.01	I	N
ATOM	473	CA	PHE	I	70	39.178	30.975	3.249	1.00	48.55	I	C
ATOM	474	CB	PHE	I	70	39.423	29.481	3.022	1.00	49.37	I	C
ATOM	475	CG	PHE	I	70	38.521	28.958	1.939	1.00	49.79	I	C
ATOM	476	CD1	PHE	I	70	39.043	28.718	0.674	1.00	47.81	I	C
ATOM	477	CD2	PHE	I	70	37.236	28.542	2.253	1.00	50.11	I	C
ATOM	478	CE1	PHE	I	70	38.286	28.035	-0.269	1.00	47.12	I	C
ATOM	479	CE2	PHE	I	70	36.483	27.857	1.302	1.00	49.17	I	C
ATOM	480	CZ	PHE	I	70	37.006	27.596	0.041	1.00	47.05	I	C
ATOM	481	C	PHE	I	70	39.674	31.371	4.644	1.00	49.59	I	C
ATOM	482	O	PHE	I	70	38.995	31.218	5.651	1.00	49.43	I	O
ATOM	483	N	CYS	I	71	40.929	31.858	4.679	1.00	50.98	I	N
ATOM	484	CA	CYS	I	71	41.534	32.251	5.952	1.00	51.34	I	C
ATOM	485	C	CYS	I	71	42.194	33.617	5.844	1.00	49.66	I	C

ATOM	486	O	CYS	I	71	43.418	33.763	5.815	1.00	48.07	I	O
ATOM	487	CB	CYS	I	71	42.572	31.188	6.320	1.00	52.25	I	C
ATOM	488	SG	CYS	I	71	43.274	31.439	7.967	1.00	56.38	I	S
ATOM	489	N	PRO	I	72	41.359	34.671	5.747	1.00	49.56	I	N
ATOM	490	CD	PRO	I	72	39.902	34.657	5.899	1.00	48.36	I	C
ATOM	491	CA	PRO	I	72	41.820	36.017	5.495	1.00	49.81	I	C
ATOM	492	CB	PRO	I	72	40.606	36.853	5.112	1.00	48.73	I	C
ATOM	493	CG	PRO	I	72	39.372	36.152	5.670	1.00	48.32	I	C
ATOM	494	C	PRO	I	72	42.483	36.612	6.738	1.00	50.31	I	C
ATOM	495	O	PRO	I	72	43.489	37.301	6.685	1.00	49.60	I	O
ATOM	496	N	HIS	I	73	41.834	36.347	7.885	1.00	52.63	I	N
ATOM	497	CA	HIS	I	73	42.366	36.834	9.148	1.00	54.75	I	C
ATOM	498	CB	HIS	I	73	41.189	37.292	10.003	1.00	53.22	I	C
ATOM	499	CG	HIS	I	73	40.877	38.728	9.705	1.00	51.21	I	C
ATOM	500	CD2	HIS	I	73	40.029	39.238	8.718	1.00	49.78	I	C
ATOM	501	ND1	HIS	I	73	41.443	39.765	10.369	1.00	50.07	I	N
ATOM	502	CE1	HIS	I	73	40.952	40.876	9.787	1.00	52.20	I	C
ATOM	503	NE2	HIS	I	73	40.103	40.590	8.796	1.00	50.88	I	N
ATOM	504	C	HIS	I	73	43.100	35.735	9.890	1.00	57.36	I	C
ATOM	505	O	HIS	I	73	42.525	34.738	10.310	1.00	56.89	I	O
ATOM	506	N	LYS	I	74	44.419	35.908	10.022	1.00	62.03	I	N
ATOM	507	CA	LYS	I	74	45.102	34.981	10.900	1.00	66.84	I	C
ATOM	508	CB	LYS	I	74	46.439	35.615	11.316	1.00	66.79	I	C
ATOM	509	CG	LYS	I	74	47.278	34.687	12.199	1.00	67.62	I	C
ATOM	510	CD	LYS	I	74	48.761	35.059	12.195	1.00	67.42	I	C
ATOM	511	CE	LYS	I	74	49.439	34.791	13.542	1.00	67.41	I	C
ATOM	512	NZ	LYS	I	74	49.380	35.994	14.372	1.00	66.83	I	N
ATOM	513	C	LYS	I	74	44.235	34.707	12.135	1.00	70.71	I	C
ATOM	514	O	LYS	I	74	44.166	35.504	13.065	1.00	72.13	I	O
ATOM	515	N	VAL	I	75	43.487	33.581	12.071	1.00	76.53	I	N
ATOM	516	CA	VAL	I	75	42.976	32.997	13.308	1.00	80.60	I	C
ATOM	517	CB	VAL	I	75	41.591	32.408	13.145	1.00	80.99	I	C
ATOM	518	CG1	VAL	I	75	41.658	31.357	12.040	1.00	80.41	I	C
ATOM	519	CG2	VAL	I	75	41.258	31.684	14.447	1.00	81.80	I	C
ATOM	520	C	VAL	I	75	43.835	31.838	13.734	1.00	83.10	I	C
ATOM	521	O	VAL	I	75	43.359	30.786	14.129	1.00	84.01	I	O
ATOM	522	N	SER	I	76	45.127	31.973	13.523	1.00	86.18	I	N
ATOM	523	CA	SER	I	76	45.963	31.363	14.531	1.00	88.83	I	C
ATOM	524	CB	SER	I	76	47.383	31.508	13.984	1.00	89.61	I	C
ATOM	525	OG	SER	I	76	47.404	30.931	12.653	1.00	89.51	I	O
ATOM	526	C	SER	I	76	45.692	32.232	15.775	1.00	90.59	I	C
ATOM	527	O	SER	I	76	45.810	33.452	15.712	1.00	91.56	I	O
ATOM	528	N	ALA	I	77	45.289	31.650	16.940	1.00	92.05	I	N
ATOM	529	CA	ALA	I	77	45.874	30.456	17.557	1.00	92.64	I	C
ATOM	530	CB	ALA	I	77	45.180	30.233	18.903	1.00	92.84	I	C
ATOM	531	C	ALA	I	77	45.853	29.186	16.729	1.00	92.83	I	C
ATOM	532	O	ALA	I	77	44.830	28.560	16.481	1.00	92.95	I	O
ATOM	533	N	GLY	I	78	47.061	28.804	16.299	1.00	93.00	I	N
ATOM	534	CA	GLY	I	78	47.152	27.662	15.397	1.00	92.73	I	C
ATOM	535	C	GLY	I	78	48.525	27.008	15.458	1.00	92.58	I	C
ATOM	536	O	GLY	I	78	48.765	26.088	16.231	1.00	93.01	I	O
ATOM	537	N	ALA	I	86	52.371	15.408	13.593	1.00	92.36	I	N
ATOM	538	CA	ALA	I	86	53.584	14.621	13.409	1.00	91.82	I	C
ATOM	539	CB	ALA	I	86	53.416	13.774	12.147	1.00	91.57	I	C
ATOM	540	C	ALA	I	86	54.820	15.513	13.278	1.00	90.72	I	C
ATOM	541	O	ALA	I	86	55.786	15.407	14.021	1.00	90.75	I	O
ATOM	542	N	ASP	I	87	54.779	16.393	12.260	1.00	89.29	I	N
ATOM	543	CA	ASP	I	87	55.907	17.291	12.040	1.00	86.83	I	C
ATOM	544	CB	ASP	I	87	56.616	17.505	13.377	1.00	87.75	I	C
ATOM	545	CG	ASP	I	87	56.638	18.991	13.702	1.00	89.12	I	C
ATOM	546	OD1	ASP	I	87	55.666	19.464	14.292	1.00	89.77	I	O

ATOM	547	OD2	ASP	I	87	57.616	19.655	13.367	1.00	88.95	I	O
ATOM	548	C	ASP	I	87	56.888	16.720	11.014	1.00	84.28	I	C
ATOM	549	O	ASP	I	87	58.074	16.550	11.267	1.00	83.94	I	O
ATOM	550	N	THR	I	88	56.342	16.382	9.831	1.00	80.90	I	N
ATOM	551	CA	THR	I	88	57.188	15.835	8.777	1.00	77.36	I	C
ATOM	552	CB	THR	I	88	56.652	14.452	8.405	1.00	77.25	I	C
ATOM	553	OG1	THR	I	88	55.390	14.602	7.753	1.00	77.90	I	O
ATOM	554	CG2	THR	I	88	56.458	13.608	9.668	1.00	77.01	I	C
ATOM	555	C	THR	I	88	57.202	16.739	7.543	1.00	74.91	I	C
ATOM	556	O	THR	I	88	56.322	17.561	7.324	1.00	75.04	I	O
ATOM	557	N	LYS	I	89	58.272	16.591	6.740	1.00	72.57	I	N
ATOM	558	CA	LYS	I	89	58.389	17.409	5.540	1.00	70.36	I	C
ATOM	559	CB	LYS	I	89	59.768	18.070	5.545	1.00	71.28	I	C
ATOM	560	CG	LYS	I	89	59.804	19.332	6.410	1.00	72.04	I	C
ATOM	561	CD	LYS	I	89	60.757	20.391	5.853	1.00	72.01	I	C
ATOM	562	CE	LYS	I	89	60.340	21.815	6.235	1.00	72.21	I	C
ATOM	563	NZ	LYS	I	89	61.031	22.776	5.378	1.00	73.09	I	N
ATOM	564	C	LYS	I	89	58.214	16.576	4.268	1.00	68.20	I	C
ATOM	565	O	LYS	I	89	59.084	15.823	3.853	1.00	69.41	I	O
ATOM	566	N	ILE	I	90	57.017	16.705	3.666	1.00	63.98	I	N
ATOM	567	CA	ILE	I	90	56.741	15.960	2.443	1.00	61.10	I	C
ATOM	568	CB	ILE	I	90	55.316	15.412	2.531	1.00	61.02	I	C
ATOM	569	CG2	ILE	I	90	55.218	14.395	3.683	1.00	60.62	I	C
ATOM	570	CG1	ILE	I	90	54.332	16.548	2.824	1.00	60.18	I	C
ATOM	571	CD1	ILE	I	90	52.892	16.049	2.958	1.00	58.72	I	C
ATOM	572	C	ILE	I	90	56.883	16.844	1.202	1.00	59.31	I	C
ATOM	573	O	ILE	I	90	56.947	18.064	1.280	1.00	60.19	I	O
ATOM	574	N	GLU	I	91	56.980	16.263	-0.006	1.00	57.27	I	N
ATOM	575	CA	GLU	I	91	57.016	17.108	-1.181	1.00	56.01	I	C
ATOM	576	CB	GLU	I	91	57.280	16.218	-2.392	1.00	55.94	I	C
ATOM	577	CG	GLU	I	91	58.646	15.539	-2.323	1.00	59.79	I	C
ATOM	578	CD	GLU	I	91	58.892	14.787	-3.605	1.00	61.27	I	C
ATOM	579	OE1	GLU	I	91	60.027	14.397	-3.857	1.00	64.11	I	O
ATOM	580	OE2	GLU	I	91	57.935	14.589	-4.343	1.00	62.33	I	O
ATOM	581	C	GLU	I	91	55.712	17.891	-1.355	1.00	54.80	I	C
ATOM	582	O	GLU	I	91	54.647	17.524	-0.873	1.00	55.53	I	O
ATOM	583	N	VAL	I	92	55.749	19.000	-2.106	1.00	53.36	I	N
ATOM	584	CA	VAL	I	92	54.578	19.821	-2.225	1.00	52.86	I	C
ATOM	585	CB	VAL	I	92	54.974	21.122	-2.945	1.00	53.89	I	C
ATOM	586	CG1	VAL	I	92	53.780	21.945	-3.400	1.00	54.86	I	C
ATOM	587	CG2	VAL	I	92	55.646	21.999	-1.985	1.00	53.89	I	C
ATOM	588	C	VAL	I	92	53.570	19.088	-3.112	1.00	52.07	I	C
ATOM	589	O	VAL	I	92	52.365	19.039	-2.775	1.00	49.54	I	O
ATOM	590	N	ALA	I	93	54.048	18.417	-4.204	1.00	50.82	I	N
ATOM	591	CA	ALA	I	93	53.158	17.505	-4.939	1.00	51.29	I	C
ATOM	592	CB	ALA	I	93	53.937	16.578	-5.759	1.00	51.50	I	C
ATOM	593	C	ALA	I	93	52.322	16.603	-4.072	1.00	51.78	I	C
ATOM	594	O	ALA	I	93	51.159	16.417	-4.285	1.00	52.02	I	O
ATOM	595	N	GLN	I	94	52.948	15.934	-3.132	1.00	51.82	I	N
ATOM	596	CA	GLN	I	94	52.222	15.013	-2.307	1.00	51.43	I	C
ATOM	597	CB	GLN	I	94	53.244	14.218	-1.468	1.00	51.33	I	C
ATOM	598	CG	GLN	I	94	52.539	13.173	-0.468	1.00	51.17	I	C
ATOM	599	CD	GLN	I	94	52.073	11.932	-1.233	1.00	53.13	I	C
ATOM	600	OE1	GLN	I	94	52.802	11.461	-1.968	1.00	53.01	I	O
ATOM	601	NE2	GLN	I	94	50.805	11.506	-1.078	1.00	52.92	I	N
ATOM	602	C	GLN	I	94	51.354	15.741	-1.330	1.00	50.67	I	C
ATOM	603	O	GLN	I	94	50.272	15.258	-0.945	1.00	51.69	I	O
ATOM	604	N	PHE	I	95	51.805	16.928	-0.896	1.00	48.96	I	N
ATOM	605	CA	PHE	I	95	50.927	17.774	0.055	1.00	46.81	I	C
ATOM	606	CB	PHE	I	95	51.688	19.007	0.444	1.00	44.76	I	C
ATOM	607	CG	PHE	I	95	50.936	19.912	1.508	1.00	45.45	I	C

ATOM	608	CD1	PHE	I	95	51.118	19.792	2.777	1.00	45.87	I	C
ATOM	609	CD2	PHE	I	95	49.931	20.752	1.114	1.00	45.94	I	C
ATOM	610	CE1	PHE	I	95	50.448	20.560	3.810	1.00	45.08	I	C
ATOM	611	CE2	PHE	I	95	49.271	21.524	2.109	1.00	45.21	I	C
ATOM	612	CZ	PHE	I	95	49.544	21.461	3.476	1.00	44.16	I	C
ATOM	613	C	PHE	I	95	49.687	18.134	-0.632	1.00	45.91	I	C
ATOM	614	O	PHE	I	95	48.534	17.993	-0.083	1.00	45.21	I	O
ATOM	615	N	VAL	I	96	49.843	18.547	-1.894	1.00	45.24	I	N
ATOM	616	CA	VAL	I	96	48.730	19.096	-2.577	1.00	46.36	I	C
ATOM	617	CB	VAL	I	96	49.099	19.856	-3.820	1.00	45.79	I	C
ATOM	618	CG1	VAL	I	96	47.855	20.215	-4.467	1.00	47.08	I	C
ATOM	619	CG2	VAL	I	96	49.696	21.210	-3.547	1.00	44.28	I	C
ATOM	620	C	VAL	I	96	47.825	17.939	-2.988	1.00	47.34	I	C
ATOM	621	O	VAL	I	96	46.517	18.044	-3.077	1.00	47.21	I	O
ATOM	622	N	LYS	I	97	48.449	16.863	-3.353	1.00	49.09	I	N
ATOM	623	CA	LYS	I	97	47.574	15.679	-3.793	1.00	51.55	I	C
ATOM	624	CB	LYS	I	97	48.493	14.584	-4.189	1.00	54.17	I	C
ATOM	625	CG	LYS	I	97	47.946	13.341	-4.887	1.00	60.40	I	C
ATOM	626	CD	LYS	I	97	49.050	12.597	-6.011	1.00	62.67	I	C
ATOM	627	CE	LYS	I	97	49.068	13.410	-7.468	1.00	66.05	I	C
ATOM	628	NZ	LYS	I	97	50.343	13.646	-8.370	1.00	66.57	I	N
ATOM	629	C	LYS	I	97	46.717	15.254	-2.591	1.00	51.16	I	C
ATOM	630	O	LYS	I	97	45.447	15.000	-2.673	1.00	50.76	I	O
ATOM	631	N	ASP	I	98	47.321	15.203	-1.392	1.00	52.09	I	N
ATOM	632	CA	ASP	I	98	46.501	14.772	-0.216	1.00	52.20	I	C
ATOM	633	CB	ASP	I	98	47.333	14.613	1.015	1.00	54.80	I	C
ATOM	634	CG	ASP	I	98	48.374	13.440	0.980	1.00	59.19	I	C
ATOM	635	OD1	ASP	I	98	49.308	13.489	1.921	1.00	61.38	I	O
ATOM	636	OD2	ASP	I	98	48.382	12.502	0.119	1.00	61.58	I	O
ATOM	637	C	ASP	I	98	45.449	15.883	0.089	1.00	51.39	I	C
ATOM	638	O	ASP	I	98	44.352	15.575	0.548	1.00	51.71	I	O
ATOM	639	N	LEU	I	99	45.774	17.198	-0.106	1.00	47.74	I	N
ATOM	640	CA	LEU	I	99	44.840	18.251	0.339	1.00	47.45	I	C
ATOM	641	CB	LEU	I	99	45.443	19.597	0.023	1.00	45.49	I	C
ATOM	642	CG	LEU	I	99	44.829	20.833	0.627	1.00	44.89	I	C
ATOM	643	CD1	LEU	I	99	45.245	22.154	-0.015	1.00	43.60	I	C
ATOM	644	CD2	LEU	I	99	43.586	20.934	1.092	1.00	43.98	I	C
ATOM	645	C	LEU	I	99	43.611	18.034	-0.533	1.00	46.93	I	C
ATOM	646	O	LEU	I	99	42.468	18.230	-0.102	1.00	47.46	I	O
ATOM	647	N	LEU	I	100	43.851	17.760	-1.794	1.00	45.76	I	N
ATOM	648	CA	LEU	I	100	42.817	17.754	-2.807	1.00	44.53	I	C
ATOM	649	CB	LEU	I	100	43.591	17.644	-4.248	1.00	43.55	I	C
ATOM	650	CG	LEU	I	100	42.669	17.411	-5.353	1.00	43.64	I	C
ATOM	651	CD1	LEU	I	100	41.718	18.519	-5.349	1.00	42.86	I	C
ATOM	652	CD2	LEU	I	100	43.369	17.199	-6.753	1.00	40.11	I	C
ATOM	653	C	LEU	I	100	41.890	16.646	-2.616	1.00	44.86	I	C
ATOM	654	O	LEU	I	100	40.620	16.754	-2.540	1.00	45.24	I	O
ATOM	655	N	LEU	I	101	42.441	15.498	-2.233	1.00	45.36	I	N
ATOM	656	CA	LEU	I	101	41.532	14.416	-1.832	1.00	46.01	I	C
ATOM	657	CB	LEU	I	101	42.304	13.119	-1.634	1.00	45.92	I	C
ATOM	658	CG	LEU	I	101	42.851	12.537	-2.978	1.00	45.91	I	C
ATOM	659	CD1	LEU	I	101	43.906	11.504	-2.808	1.00	46.51	I	C
ATOM	660	CD2	LEU	I	101	41.696	11.862	-3.903	1.00	43.07	I	C
ATOM	661	C	LEU	I	101	40.596	14.747	-0.682	1.00	46.66	I	C
ATOM	662	O	LEU	I	101	39.288	14.481	-0.628	1.00	48.00	I	O
ATOM	663	N	HIS	I	102	41.150	15.486	0.214	1.00	46.69	I	N
ATOM	664	CA	HIS	I	102	40.320	15.789	1.334	1.00	48.31	I	C
ATOM	665	CB	HIS	I	102	41.194	16.406	2.430	1.00	51.03	I	C
ATOM	666	CG	HIS	I	102	40.434	16.774	3.641	1.00	51.82	I	C
ATOM	667	CD2	HIS	I	102	40.061	17.963	4.107	1.00	53.23	I	C
ATOM	668	ND1	HIS	I	102	40.122	15.873	4.610	1.00	53.12	I	N

ATOM	669	CE1	HIS	I	102	39.380	16.456	5.518	1.00	54.50	I	C
ATOM	670	NE2	HIS	I	102	39.373	17.741	5.260	1.00	56.06	I	N
ATOM	671	C	HIS	I	102	39.281	16.813	0.903	1.00	48.41	I	C
ATOM	672	O	HIS	I	102	38.102	16.806	1.343	1.00	46.87	I	O
ATOM	673	N	LEU	I	103	39.724	17.763	0.094	1.00	48.47	I	N
ATOM	674	CA	LEU	I	103	38.678	18.709	-0.307	1.00	49.56	I	C
ATOM	675	CB	LEU	I	103	39.292	19.869	-1.094	1.00	48.48	I	C
ATOM	676	CG	LEU	I	103	40.354	20.788	-0.467	1.00	49.09	I	C
ATOM	677	CD1	LEU	I	103	41.044	21.809	-1.341	1.00	49.00	I	C
ATOM	678	CD2	LEU	I	103	39.733	21.564	0.838	1.00	45.10	I	C
ATOM	679	C	LEU	I	103	37.585	18.095	-1.176	1.00	50.10	I	C
ATOM	680	O	LEU	I	103	36.461	18.432	-1.074	1.00	49.95	I	O
ATOM	681	N	LYS	I	104	37.937	17.154	-2.005	1.00	50.85	I	N
ATOM	682	CA	LYS	I	104	36.867	16.490	-2.802	1.00	50.86	I	C
ATOM	683	CB	LYS	I	104	37.402	15.549	-3.797	1.00	49.12	I	C
ATOM	684	CG	LYS	I	104	38.306	16.284	-4.777	1.00	48.40	I	C
ATOM	685	CD	LYS	I	104	38.591	15.250	-5.921	1.00	47.57	I	C
ATOM	686	CE	LYS	I	104	39.248	15.985	-7.140	1.00	48.88	I	C
ATOM	687	NZ	LYS	I	104	39.306	15.204	-8.323	1.00	47.96	I	N
ATOM	688	C	LYS	I	104	35.925	15.737	-1.861	1.00	50.92	I	C
ATOM	689	O	LYS	I	104	34.706	15.596	-2.147	1.00	50.71	I	O
ATOM	690	N	LYS	I	105	36.454	15.185	-0.819	1.00	52.08	I	N
ATOM	691	CA	LYS	I	105	35.547	14.557	0.142	1.00	54.25	I	C
ATOM	692	CB	LYS	I	105	36.263	13.771	1.148	1.00	56.55	I	C
ATOM	693	CG	LYS	I	105	35.474	13.493	2.486	1.00	60.33	I	C
ATOM	694	CD	LYS	I	105	36.344	13.038	3.615	1.00	63.22	I	C
ATOM	695	CE	LYS	I	105	36.799	11.582	3.364	1.00	66.16	I	C
ATOM	696	NZ	LYS	I	105	37.722	11.200	4.601	1.00	71.27	I	N
ATOM	697	C	LYS	I	105	34.658	15.480	0.879	1.00	54.66	I	C
ATOM	698	O	LYS	I	105	33.426	15.193	0.899	1.00	54.59	I	O
ATOM	699	N	LEU	I	106	35.161	16.673	1.347	1.00	55.31	I	N
ATOM	700	CA	LEU	I	106	34.246	17.681	1.925	1.00	55.19	I	C
ATOM	701	CB	LEU	I	106	35.016	18.909	2.367	1.00	55.63	I	C
ATOM	702	CG	LEU	I	106	36.158	18.689	3.345	1.00	56.60	I	C
ATOM	703	CD1	LEU	I	106	36.737	20.087	3.680	1.00	56.04	I	C
ATOM	704	CD2	LEU	I	106	35.581	18.001	4.446	1.00	56.80	I	C
ATOM	705	C	LEU	I	106	33.206	18.130	0.944	1.00	55.25	I	C
ATOM	706	O	LEU	I	106	32.049	18.328	1.266	1.00	53.51	I	O
ATOM	707	N	PHE	I	107	33.576	18.256	-0.333	1.00	55.92	I	N
ATOM	708	CA	PHE	I	107	32.581	18.731	-1.318	1.00	56.04	I	C
ATOM	709	CB	PHE	I	107	33.229	18.776	-2.639	1.00	53.89	I	C
ATOM	710	CG	PHE	I	107	32.373	19.340	-3.734	1.00	52.39	I	C
ATOM	711	CD1	PHE	I	107	32.040	20.666	-3.816	1.00	52.13	I	C
ATOM	712	CD2	PHE	I	107	31.786	18.487	-4.567	1.00	52.09	I	C
ATOM	713	CE1	PHE	I	107	31.227	21.177	-4.966	1.00	53.21	I	C
ATOM	714	CE2	PHE	I	107	30.982	18.929	-5.609	1.00	52.54	I	C
ATOM	715	CZ	PHE	I	107	30.726	20.235	-5.871	1.00	51.78	I	C
ATOM	716	C	PHE	I	107	31.505	17.720	-1.389	1.00	57.69	I	C
ATOM	717	O	PHE	I	107	30.309	17.986	-1.382	1.00	57.18	I	O
ATOM	718	N	ARG	I	108	31.891	16.490	-1.534	1.00	60.03	I	N
ATOM	719	CA	ARG	I	108	30.881	15.511	-1.665	1.00	63.96	I	C
ATOM	720	CB	ARG	I	108	31.608	14.199	-2.008	1.00	65.15	I	C
ATOM	721	CG	ARG	I	108	30.754	12.873	-2.025	1.00	67.16	I	C
ATOM	722	CD	ARG	I	108	31.667	11.584	-2.519	1.00	68.85	I	C
ATOM	723	NE	ARG	I	108	32.695	11.003	-1.599	1.00	70.00	I	N
ATOM	724	CZ	ARG	I	108	34.069	11.182	-1.590	1.00	70.81	I	C
ATOM	725	NH1	ARG	I	108	34.757	11.989	-2.451	1.00	70.77	I	N
ATOM	726	NH2	ARG	I	108	34.784	10.519	-0.653	1.00	70.34	I	N
ATOM	727	C	ARG	I	108	29.994	15.439	-0.290	1.00	66.09	I	C
ATOM	728	O	ARG	I	108	28.819	15.168	-0.358	1.00	66.77	I	O
ATOM	729	N	GLU	I	109	30.524	15.646	0.926	1.00	68.31	I	N

	ATOM	730	CA	GLU	I	109	29.675	15.629	2.113	1.00	70.48	I C
	ATOM	731	CB	GLU	I	109	30.552	15.413	3.334	1.00	72.41	I C
	ATOM	732	CG	GLU	I	109	31.156	14.032	3.348	1.00	74.96	I C
	ATOM	733	CD	GLU	I	109	32.329	13.680	4.311	1.00	77.15	I C
5	ATOM	734	OE1	GLU	I	109	32.637	12.428	4.269	1.00	77.91	I O
	ATOM	735	OE2	GLU	I	109	32.937	14.563	5.045	1.00	78.45	I O
	ATOM	736	C	GLU	I	109	28.905	16.948	2.276	1.00	71.26	I C
	ATOM	737	O	GLU	I	109	28.156	17.047	3.145	1.00	72.42	I O
	ATOM	738	N	GLY	I	110	29.031	17.967	1.442	1.00	71.47	I N
10	ATOM	739	CA	GLY	I	110	28.285	19.190	1.716	1.00	72.78	I C
	ATOM	740	C	GLY	I	110	28.749	20.232	2.811	1.00	73.70	I C
	ATOM	741	O	GLY	I	110	27.929	20.900	3.473	1.00	73.73	I O
	ATOM	742	N	ARG	I	111	30.065	20.280	3.036	1.00	74.76	I N
	ATOM	743	CA	ARG	I	111	30.802	21.114	3.976	1.00	75.92	I C
15	ATOM	744	CB	ARG	I	111	31.695	20.202	4.816	1.00	76.34	I C
	ATOM	745	CG	ARG	I	111	30.977	18.919	5.233	1.00	77.70	I C
	ATOM	746	CD	ARG	I	111	31.331	18.500	6.664	1.00	79.60	I C
	ATOM	747	NE	ARG	I	111	32.505	17.621	6.665	1.00	80.80	I N
	ATOM	748	CZ	ARG	I	111	33.534	17.966	7.461	1.00	81.19	I C
20	ATOM	749	NH1	ARG	I	111	33.458	19.050	8.214	1.00	80.98	I N
	ATOM	750	NH2	ARG	I	111	34.641	17.219	7.470	1.00	81.56	I N
	ATOM	751	C	ARG	I	111	31.650	22.165	3.253	1.00	76.69	I C
	ATOM	752	O	ARG	I	111	32.822	21.971	2.955	1.00	75.67	I O
	ATOM	753	N	PHE	I	112	30.996	23.297	2.931	1.00	78.04	I N
25	ATOM	754	CA	PHE	I	112	31.701	24.365	2.230	1.00	79.36	I C
	ATOM	755	CB	PHE	I	112	30.682	25.138	1.392	1.00	79.30	I C
	ATOM	756	CG	PHE	I	112	30.167	24.261	0.290	1.00	78.67	I C
	ATOM	757	CD1	PHE	I	112	30.576	24.490	-1.018	1.00	78.26	I C
	ATOM	758	CD2	PHE	I	112	29.326	23.201	0.586	1.00	78.46	I C
30	ATOM	759	CE1	PHE	I	112	30.147	23.643	-2.030	1.00	77.94	I C
	ATOM	760	CE2	PHE	I	112	28.901	22.357	-0.435	1.00	79.06	I C
	ATOM	761	CZ	PHE	I	112	29.311	22.571	-1.744	1.00	78.48	I C
	ATOM	762	C	PHE	I	112	32.402	25.314	3.205	1.00	79.89	I C
	ATOM	763	O	PHE	I	112	32.665	26.470	2.905	1.00	79.55	I O
35	ATOM	764	OXT	PHE	I	112	32.729	24.958	4.329	1.00	81.92	I O
	ATOM	765	CB	PRO	R	33	77.296	6.508	12.091	1.00	109.80	R C
	ATOM	766	CG	PRO	R	33	77.634	7.071	13.466	1.00	109.72	R C
	ATOM	767	C	PRO	R	33	75.600	7.448	10.489	1.00	109.45	R C
	ATOM	768	O	PRO	R	33	74.661	8.222	10.616	1.00	109.75	R O
40	ATOM	769	N	PRO	R	33	76.843	8.883	12.021	1.00	109.73	R N
	ATOM	770	CD	PRO	R	33	76.862	8.467	13.415	1.00	110.08	R C
	ATOM	771	CA	PRO	R	33	76.935	7.688	11.188	1.00	109.68	R C
	ATOM	772	N	PRO	R	34	75.508	6.367	9.699	1.00	108.90	R N
	ATOM	773	CD	PRO	R	34	76.393	5.227	9.479	1.00	108.56	R C
45	ATOM	774	CA	PRO	R	34	74.287	6.191	8.965	1.00	108.17	R C
	ATOM	775	CB	PRO	R	34	74.529	5.074	7.955	1.00	108.27	R C
	ATOM	776	CG	PRO	R	34	75.702	4.241	8.433	1.00	108.37	R C
	ATOM	777	C	PRO	R	34	73.222	5.747	9.912	1.00	107.50	R C
	ATOM	778	O	PRO	R	34	73.082	6.166	11.048	1.00	107.84	R O
50	ATOM	779	N	VAL	R	35	72.413	4.851	9.403	1.00	106.22	R N
	ATOM	780	CA	VAL	R	35	71.466	4.319	10.308	1.00	105.21	R C
	ATOM	781	CB	VAL	R	35	70.057	4.467	9.738	1.00	105.03	R C
	ATOM	782	CG1	VAL	R	35	70.119	5.236	8.419	1.00	104.78	R C
	ATOM	783	CG2	VAL	R	35	69.432	3.095	9.498	1.00	105.97	R C
55	ATOM	784	C	VAL	R	35	71.756	2.861	10.581	1.00	104.36	R C
	ATOM	785	O	VAL	R	35	72.155	2.089	9.684	1.00	104.20	R O
	ATOM	786	N	THR	R	36	71.618	2.545	11.858	1.00	103.37	R N
	ATOM	787	CA	THR	R	36	71.682	1.191	12.159	1.00	101.83	R C
	ATOM	788	CB	THR	R	36	72.110	0.938	13.626	1.00	101.92	R C
60	ATOM	789	OG1	THR	R	36	73.534	0.821	13.586	1.00	102.34	R O
	ATOM	790	CG2	THR	R	36	71.552	-0.439	14.041	1.00	101.87	R C

ATOM	791	C	THR	R	36	70.527	0.342	11.738	1.00	100.49	R	C
ATOM	792	O	THR	R	36	69.352	0.681	11.806	1.00	100.30	R	O
ATOM	793	N	ASN	R	37	71.068	-0.838	11.402	1.00	98.77	R	N
ATOM	794	CA	ASN	R	37	70.689	-1.982	10.491	1.00	97.02	R	C
ATOM	795	CB	ASN	R	37	69.950	-3.094	11.245	1.00	97.91	R	C
ATOM	796	CG	ASN	R	37	69.677	-2.566	12.592	1.00	98.59	R	C
ATOM	797	OD1	ASN	R	37	69.061	-1.530	12.693	1.00	99.04	R	O
ATOM	798	ND2	ASN	R	37	70.269	-3.216	13.594	1.00	98.75	R	N
ATOM	799	C	ASN	R	37	70.302	-1.704	9.042	1.00	95.59	R	C
ATOM	800	O	ASN	R	37	71.128	-1.673	8.134	1.00	95.97	R	O
ATOM	801	N	LEU	R	38	68.988	-1.564	8.942	1.00	92.71	R	N
ATOM	802	CA	LEU	R	38	68.261	-1.183	7.691	1.00	89.88	R	C
ATOM	803	CB	LEU	R	38	68.999	-0.241	6.719	1.00	89.18	R	C
ATOM	804	CG	LEU	R	38	67.999	0.328	5.670	1.00	88.71	R	C
ATOM	805	CD1	LEU	R	38	67.016	1.337	6.281	1.00	87.75	R	C
ATOM	806	CD2	LEU	R	38	68.648	1.016	4.469	1.00	88.12	R	C
ATOM	807	C	LEU	R	38	67.588	-2.346	6.945	1.00	88.31	R	C
ATOM	808	O	LEU	R	38	68.101	-2.866	5.943	1.00	88.23	R	O
ATOM	809	N	SER	R	39	66.424	-2.757	7.462	1.00	86.43	R	N
ATOM	810	CA	SER	R	39	65.722	-3.927	6.933	1.00	85.04	R	C
ATOM	811	CB	SER	R	39	65.446	-4.868	8.104	1.00	84.80	R	C
ATOM	812	OG	SER	R	39	64.399	-4.315	8.906	1.00	84.68	R	O
ATOM	813	C	SER	R	39	64.391	-3.565	6.246	1.00	83.83	R	C
ATOM	814	O	SER	R	39	63.917	-2.438	6.301	1.00	83.04	R	O
ATOM	815	N	VAL	R	40	63.820	-4.574	5.551	1.00	82.75	R	N
ATOM	816	CA	VAL	R	40	62.586	-4.334	4.808	1.00	81.48	R	C
ATOM	817	CB	VAL	R	40	62.951	-4.112	3.340	1.00	81.55	R	C
ATOM	818	CG1	VAL	R	40	63.536	-5.391	2.743	1.00	81.22	R	C
ATOM	819	CG2	VAL	R	40	61.713	-3.716	2.557	1.00	81.17	R	C
ATOM	820	C	VAL	R	40	61.596	-5.496	4.936	1.00	80.97	R	C
ATOM	821	O	VAL	R	40	61.958	-6.656	5.078	1.00	81.00	R	O
ATOM	822	N	SER	R	41	60.299	-5.134	4.913	1.00	80.39	R	N
ATOM	823	CA	SER	R	41	59.257	-6.146	5.056	1.00	79.03	R	C
ATOM	824	CB	SER	R	41	58.695	-6.038	6.476	1.00	79.25	R	C
ATOM	825	OG	SER	R	41	57.871	-7.172	6.744	1.00	80.21	R	O
ATOM	826	C	SER	R	41	58.139	-5.936	4.032	1.00	78.20	R	C
ATOM	827	O	SER	R	41	58.133	-4.987	3.260	1.00	78.12	R	O
ATOM	828	N	VAL	R	42	57.188	-6.889	4.011	1.00	77.02	R	N
ATOM	829	CA	VAL	R	42	56.044	-6.727	3.122	1.00	75.75	R	C
ATOM	830	CB	VAL	R	42	56.345	-7.421	1.793	1.00	75.63	R	C
ATOM	831	CG1	VAL	R	42	55.040	-7.685	1.042	1.00	74.23	R	C
ATOM	832	CG2	VAL	R	42	57.239	-6.540	0.940	1.00	75.00	R	C
ATOM	833	C	VAL	R	42	54.757	-7.294	3.725	1.00	75.25	R	C
ATOM	834	O	VAL	R	42	54.456	-8.476	3.634	1.00	76.26	R	O
ATOM	835	N	GLU	R	43	54.009	-6.404	4.401	1.00	74.69	R	N
ATOM	836	CA	GLU	R	43	52.690	-6.791	4.879	1.00	74.33	R	C
ATOM	837	CB	GLU	R	43	52.364	-5.955	6.118	1.00	74.91	R	C
ATOM	838	CG	GLU	R	43	53.535	-5.884	7.101	1.00	76.67	R	C
ATOM	839	CD	GLU	R	43	53.105	-5.130	8.339	1.00	78.12	R	C
ATOM	840	OE1	GLU	R	43	52.040	-4.530	8.320	1.00	78.66	R	O
ATOM	841	OE2	GLU	R	43	53.849	-5.147	9.319	1.00	78.91	R	O
ATOM	842	C	GLU	R	43	51.628	-6.569	3.802	1.00	73.28	R	C
ATOM	843	O	GLU	R	43	51.886	-6.038	2.730	1.00	72.01	R	O
ATOM	844	N	ASN	R	44	50.404	-7.036	4.102	1.00	73.87	R	N
ATOM	845	CA	ASN	R	44	49.329	-6.870	3.133	1.00	73.91	R	C
ATOM	846	CB	ASN	R	44	49.105	-5.371	2.930	1.00	74.10	R	C
ATOM	847	CG	ASN	R	44	48.598	-4.762	4.211	1.00	73.66	R	C
ATOM	848	OD1	ASN	R	44	48.998	-3.674	4.615	1.00	73.71	R	O
ATOM	849	ND2	ASN	R	44	47.676	-5.493	4.861	1.00	72.65	R	N
ATOM	850	C	ASN	R	44	49.681	-7.528	1.798	1.00	74.25	R	C
ATOM	851	O	ASN	R	44	50.000	-8.706	1.712	1.00	74.82	R	O

ATOM	852	N	LEU	R	45	49.577	-6.724	0.725	1.00	74.52	R	N
ATOM	853	CA	LEU	R	45	49.894	-7.249	-0.598	1.00	73.93	R	C
ATOM	854	CB	LEU	R	45	48.630	-7.177	-1.455	1.00	75.60	R	C
ATOM	855	CG	LEU	R	45	48.034	-8.558	-1.742	1.00	77.31	R	C
ATOM	856	CD1	LEU	R	45	46.992	-8.520	-2.860	1.00	76.95	R	C
ATOM	857	CD2	LEU	R	45	49.086	-9.581	-2.172	1.00	77.38	R	C
ATOM	858	C	LEU	R	45	51.020	-6.452	-1.261	1.00	73.85	R	C
ATOM	859	O	LEU	R	45	51.867	-6.982	-1.968	1.00	73.55	R	O
ATOM	860	N	CYS	R	46	50.984	-5.124	-1.041	1.00	73.09	R	N
ATOM	861	CA	CYS	R	46	52.004	-4.267	-1.633	1.00	72.73	R	C
ATOM	862	CB	CYS	R	46	51.354	-3.448	-2.750	1.00	73.79	R	C
ATOM	863	SG	CYS	R	46	50.633	-4.496	-4.034	1.00	79.48	R	S
ATOM	864	C	CYS	R	46	52.629	-3.335	-0.593	1.00	71.57	R	C
ATOM	865	O	CYS	R	46	53.638	-2.680	-0.821	1.00	71.95	R	O
ATOM	866	N	THR	R	47	51.964	-3.262	0.575	1.00	70.15	R	N
ATOM	867	CA	THR	R	47	52.489	-2.429	1.650	1.00	69.21	R	C
ATOM	868	CB	THR	R	47	51.529	-2.523	2.836	1.00	69.25	R	C
ATOM	869	OG1	THR	R	47	50.203	-2.240	2.387	1.00	69.24	R	O
ATOM	870	CG2	THR	R	47	51.918	-1.501	3.909	1.00	68.49	R	C
ATOM	871	C	THR	R	47	53.886	-2.880	2.078	1.00	68.94	R	C
ATOM	872	O	THR	R	47	54.063	-3.827	2.834	1.00	69.53	R	O
ATOM	873	N	VAL	R	48	54.903	-2.190	1.526	1.00	68.05	R	N
ATOM	874	CA	VAL	R	48	56.280	-2.524	1.874	1.00	68.58	R	C
ATOM	875	CB	VAL	R	48	57.128	-2.444	0.603	1.00	67.24	R	C
ATOM	876	CG1	VAL	R	48	56.460	-1.520	-0.415	1.00	69.11	R	C
ATOM	877	CG2	VAL	R	48	58.510	-1.913	0.930	1.00	67.36	R	C
ATOM	878	C	VAL	R	48	56.831	-1.570	2.939	1.00	68.62	R	C
ATOM	879	O	VAL	R	48	56.755	-0.354	2.828	1.00	69.25	R	O
ATOM	880	N	ILE	R	49	57.366	-2.165	4.020	1.00	69.02	R	N
ATOM	881	CA	ILE	R	49	57.817	-1.346	5.141	1.00	68.84	R	C
ATOM	882	CB	ILE	R	49	57.145	-1.876	6.407	1.00	68.78	R	C
ATOM	883	CG2	ILE	R	49	57.520	-0.994	7.611	1.00	68.35	R	C
ATOM	884	CG1	ILE	R	49	55.621	-1.837	6.253	1.00	68.17	R	C
ATOM	885	CD1	ILE	R	49	54.895	-2.073	7.578	1.00	70.58	R	C
ATOM	886	C	ILE	R	49	59.340	-1.378	5.303	1.00	68.46	R	C
ATOM	887	O	ILE	R	49	59.988	-2.402	5.128	1.00	69.77	R	O
ATOM	888	N	TRP	R	50	59.880	-0.181	5.604	1.00	67.57	R	N
ATOM	889	CA	TRP	R	50	61.301	-0.080	5.915	1.00	67.76	R	C
ATOM	890	CB	TRP	R	50	61.923	1.007	5.035	1.00	65.27	R	C
ATOM	891	CG	TRP	R	50	62.451	0.431	3.778	1.00	63.09	R	C
ATOM	892	CD2	TRP	R	50	61.786	0.431	2.493	1.00	62.66	R	C
ATOM	893	CE2	TRP	R	50	62.701	-0.093	1.546	1.00	62.24	R	C
ATOM	894	CE3	TRP	R	50	60.515	0.815	2.077	1.00	61.27	R	C
ATOM	895	CD1	TRP	R	50	63.743	-0.102	3.562	1.00	63.41	R	C
ATOM	896	NE1	TRP	R	50	63.958	-0.433	2.260	1.00	61.66	R	N
ATOM	897	CZ2	TRP	R	50	62.320	-0.227	0.220	1.00	62.59	R	C
ATOM	898	CZ3	TRP	R	50	60.133	0.678	0.754	1.00	61.70	R	C
ATOM	899	CH2	TRP	R	50	61.045	0.158	-0.182	1.00	63.14	R	C
ATOM	900	C	TRP	R	50	61.514	0.280	7.383	1.00	69.60	R	C
ATOM	901	O	TRP	R	50	60.901	1.187	7.933	1.00	71.18	R	O
ATOM	902	N	THR	R	51	62.395	-0.499	8.030	1.00	71.70	R	N
ATOM	903	CA	THR	R	51	62.717	-0.217	9.414	1.00	73.55	R	C
ATOM	904	CB	THR	R	51	62.099	-1.313	10.283	1.00	72.56	R	C
ATOM	905	OG1	THR	R	51	62.465	-2.591	9.761	1.00	72.81	R	O
ATOM	906	CG2	THR	R	51	60.571	-1.190	10.271	1.00	72.22	R	C
ATOM	907	C	THR	R	51	64.221	-0.181	9.612	1.00	75.37	R	C
ATOM	908	O	THR	R	51	64.995	-0.852	8.937	1.00	75.38	R	O
ATOM	909	N	TRP	R	52	64.635	0.683	10.543	1.00	77.41	R	N
ATOM	910	CA	TRP	R	52	66.052	0.795	10.814	1.00	79.26	R	C
ATOM	911	CB	TRP	R	52	66.668	1.724	9.758	1.00	79.75	R	C
ATOM	912	CG	TRP	R	52	66.114	3.093	9.875	1.00	80.89	R	C

	ATOM	913	CD2	TRP	R	52	65.067	3.675	9.057	1.00	81.56	R	C
	ATOM	914	CE2	TRP	R	52	64.989	5.051	9.392	1.00	81.99	R	C
	ATOM	915	CE3	TRP	R	52	64.192	3.155	8.106	1.00	81.29	R	C
	ATOM	916	CD1	TRP	R	52	66.624	4.141	10.674	1.00	81.45	R	C
5	ATOM	917	NE1	TRP	R	52	66.009	5.331	10.431	1.00	81.21	R	N
	ATOM	918	CZ2	TRP	R	52	64.052	5.864	8.772	1.00	81.96	R	C
	ATOM	919	CZ3	TRP	R	52	63.255	3.967	7.488	1.00	81.08	R	C
	ATOM	920	CH2	TRP	R	52	63.183	5.329	7.828	1.00	81.26	R	C
	ATOM	921	C	TRP	R	52	66.293	1.345	12.208	1.00	80.42	R	C
10	ATOM	922	O	TRP	R	52	65.384	1.531	13.007	1.00	79.43	R	O
	ATOM	923	N	ASN	R	53	67.563	1.568	12.523	1.00	82.95	R	N
	ATOM	924	CA	ASN	R	53	67.829	2.105	13.838	1.00	85.26	R	C
	ATOM	925	CB	ASN	R	53	68.545	1.040	14.660	1.00	86.57	R	C
	ATOM	926	CG	ASN	R	53	67.526	0.038	15.127	1.00	88.41	R	C
15	ATOM	927	OD1	ASN	R	53	66.721	0.304	16.014	1.00	89.46	R	O
	ATOM	928	ND2	ASN	R	53	67.493	-1.103	14.423	1.00	88.47	R	N
	ATOM	929	C	ASN	R	53	68.657	3.371	13.780	1.00	85.99	R	C
	ATOM	930	O	ASN	R	53	69.353	3.661	12.814	1.00	84.91	R	O
	ATOM	931	N	PRO	R	54	68.513	4.161	14.854	1.00	87.46	R	N
20	ATOM	932	CD	PRO	R	54	67.558	4.031	15.939	1.00	87.13	R	C
	ATOM	933	CA	PRO	R	54	69.367	5.306	15.068	1.00	88.96	R	C
	ATOM	934	CB	PRO	R	54	69.022	5.900	16.433	1.00	88.51	R	C
	ATOM	935	CG	PRO	R	54	67.670	5.336	16.857	1.00	87.81	R	C
	ATOM	936	C	PRO	R	54	70.837	4.875	15.020	1.00	91.16	R	C
25	ATOM	937	O	PRO	R	54	71.225	3.786	15.408	1.00	91.95	R	O
	ATOM	938	N	PRO	R	55	71.659	5.767	14.471	1.00	92.77	R	N
	ATOM	939	CD	PRO	R	55	71.358	7.124	14.076	1.00	92.90	R	C
	ATOM	940	CA	PRO	R	55	73.060	5.474	14.196	1.00	94.38	R	C
	ATOM	941	CB	PRO	R	55	73.751	6.798	13.888	1.00	93.93	R	C
30	ATOM	942	CG	PRO	R	55	72.739	7.924	14.112	1.00	93.32	R	C
	ATOM	943	C	PRO	R	55	73.761	4.774	15.365	1.00	96.19	R	C
	ATOM	944	O	PRO	R	55	73.823	5.288	16.474	1.00	96.51	R	O
	ATOM	945	N	CYS	R	62	71.151	15.108	19.860	1.00	97.98	R	N
	ATOM	946	CA	CYS	R	62	70.420	15.510	18.664	1.00	99.92	R	C
35	ATOM	947	C	CYS	R	62	69.057	14.816	18.581	1.00	100.12	R	C
	ATOM	948	O	CYS	R	62	68.951	13.597	18.581	1.00	100.53	R	O
	ATOM	949	CB	CYS	R	62	71.268	15.154	17.437	1.00	100.74	R	C
	ATOM	950	SG	CYS	R	62	72.172	16.581	16.783	1.00	104.16	R	S
	ATOM	951	N	SER	R	63	68.001	15.643	18.514	1.00	100.26	R	N
40	ATOM	952	CA	SER	R	63	66.749	15.214	17.866	1.00	100.59	R	C
	ATOM	953	CB	SER	R	63	65.737	16.344	18.003	1.00	100.76	R	C
	ATOM	954	OG	SER	R	63	65.282	16.394	19.352	1.00	100.96	R	O
	ATOM	955	C	SER	R	63	66.932	14.883	16.379	1.00	100.67	R	C
	ATOM	956	O	SER	R	63	67.014	15.751	15.524	1.00	101.08	R	O
45	ATOM	957	N	LEU	R	64	66.995	13.572	16.071	1.00	100.07	R	N
	ATOM	958	CA	LEU	R	64	67.207	13.155	14.689	1.00	99.22	R	C
	ATOM	959	CB	LEU	R	64	67.502	11.646	14.686	1.00	99.84	R	C
	ATOM	960	CG	LEU	R	64	68.992	11.275	14.695	1.00	100.27	R	C
	ATOM	961	CD1	LEU	R	64	69.877	12.258	13.922	1.00	100.39	R	C
50	ATOM	962	CD2	LEU	R	64	69.562	11.217	16.105	1.00	99.98	R	C
	ATOM	963	C	LEU	R	64	65.974	13.412	13.822	1.00	98.40	R	C
	ATOM	964	O	LEU	R	64	64.833	13.273	14.243	1.00	98.87	R	O
	ATOM	965	N	TRP	R	65	66.237	13.854	12.578	1.00	97.03	R	N
	ATOM	966	CA	TRP	R	65	65.271	13.627	11.509	1.00	95.83	R	C
55	ATOM	967	CB	TRP	R	65	64.793	14.956	10.924	1.00	96.96	R	C
	ATOM	968	CG	TRP	R	65	63.709	15.532	11.742	1.00	97.91	R	C
	ATOM	969	CD2	TRP	R	65	63.886	16.344	12.919	1.00	98.91	R	C
	ATOM	970	CE2	TRP	R	65	62.596	16.735	13.354	1.00	99.15	R	C
	ATOM	971	CE3	TRP	R	65	65.008	16.789	13.604	1.00	99.85	R	C
60	ATOM	972	CD1	TRP	R	65	62.321	15.447	11.506	1.00	98.14	R	C
	ATOM	973	NE1	TRP	R	65	61.599	16.123	12.438	1.00	98.55	R	N

ATOM	974	CZ2	TRP	R	65	62.463	17.571	14.454	1.00	99.73	R	C
ATOM	975	CZ3	TRP	R	65	64.878	17.618	14.704	1.00	100.22	R	C
ATOM	976	CH2	TRP	R	65	63.596	18.021	15.124	1.00	100.03	R	C
ATOM	977	C	TRP	R	65	65.918	12.807	10.401	1.00	93.89	R	C
ATOM	978	O	TRP	R	65	67.010	13.086	9.927	1.00	93.86	R	O
ATOM	979	N	TYR	R	66	65.219	11.735	10.013	1.00	91.56	R	N
ATOM	980	CA	TYR	R	66	65.711	10.896	8.942	1.00	89.74	R	C
ATOM	981	CB	TYR	R	66	65.255	9.461	9.198	1.00	89.58	R	C
ATOM	982	CG	TYR	R	66	65.678	9.052	10.571	1.00	89.53	R	C
ATOM	983	CD1	TYR	R	66	64.721	8.814	11.553	1.00	89.38	R	C
ATOM	984	CE1	TYR	R	66	65.108	8.450	12.831	1.00	89.14	R	C
ATOM	985	CD2	TYR	R	66	67.034	8.931	10.887	1.00	89.34	R	C
ATOM	986	CE2	TYR	R	66	67.423	8.576	12.169	1.00	89.67	R	C
ATOM	987	CZ	TYR	R	66	66.465	8.343	13.139	1.00	89.51	R	C
ATOM	988	OH	TYR	R	66	66.843	8.009	14.424	1.00	88.93	R	O
ATOM	989	C	TYR	R	66	65.211	11.378	7.577	1.00	88.13	R	C
ATOM	990	O	TYR	R	66	64.039	11.673	7.369	1.00	87.44	R	O
ATOM	991	N	PHE	R	67	66.168	11.526	6.644	1.00	87.17	R	N
ATOM	992	CA	PHE	R	67	65.773	11.892	5.291	1.00	86.53	R	C
ATOM	993	CB	PHE	R	67	66.753	12.949	4.779	1.00	87.70	R	C
ATOM	994	CG	PHE	R	67	67.092	13.919	5.872	1.00	89.87	R	C
ATOM	995	CD1	PHE	R	67	68.425	14.185	6.150	1.00	90.91	R	C
ATOM	996	CD2	PHE	R	67	66.089	14.643	6.492	1.00	90.84	R	C
ATOM	997	CE1	PHE	R	67	68.756	15.197	7.037	1.00	90.97	R	C
ATOM	998	CE2	PHE	R	67	66.426	15.660	7.381	1.00	91.55	R	C
ATOM	999	CZ	PHE	R	67	67.760	15.945	7.653	1.00	90.84	R	C
ATOM	1000	C	PHE	R	67	65.810	10.660	4.373	1.00	85.67	R	C
ATOM	1001	O	PHE	R	67	66.804	9.959	4.298	1.00	85.43	R	O
ATOM	1002	N	SER	R	68	64.677	10.389	3.691	1.00	84.85	R	N
ATOM	1003	CA	SER	R	68	64.632	9.172	2.883	1.00	84.40	R	C
ATOM	1004	CB	SER	R	68	63.905	8.097	3.686	1.00	83.55	R	C
ATOM	1005	OG	SER	R	68	62.503	8.380	3.682	1.00	81.92	R	O
ATOM	1006	C	SER	R	68	63.983	9.341	1.491	1.00	84.96	R	C
ATOM	1007	O	SER	R	68	63.129	10.181	1.265	1.00	84.40	R	O
ATOM	1008	N	HIS	R	69	64.445	8.481	0.525	1.00	86.02	R	N
ATOM	1009	CA	HIS	R	69	63.828	8.461	-0.821	1.00	87.66	R	C
ATOM	1010	CB	HIS	R	69	64.392	9.619	-1.656	1.00	86.85	R	C
ATOM	1011	CG	HIS	R	69	65.902	9.628	-1.623	1.00	87.47	R	C
ATOM	1012	CD2	HIS	R	69	66.787	9.563	-2.709	1.00	87.58	R	C
ATOM	1013	ND1	HIS	R	69	66.610	9.974	-0.520	1.00	87.25	R	N
ATOM	1014	CE1	HIS	R	69	67.883	10.130	-0.934	1.00	87.23	R	C
ATOM	1015	NE2	HIS	R	69	68.019	9.890	-2.239	1.00	87.47	R	N
ATOM	1016	C	HIS	R	69	64.012	7.121	-1.574	1.00	88.70	R	C
ATOM	1017	O	HIS	R	69	64.850	6.294	-1.242	1.00	88.93	R	O
ATOM	1018	N	PHE	R	70	63.154	6.910	-2.611	1.00	90.78	R	N
ATOM	1019	CA	PHE	R	70	63.222	5.648	-3.369	1.00	92.92	R	C
ATOM	1020	CB	PHE	R	70	62.323	5.737	-4.605	1.00	93.71	R	C
ATOM	1021	CG	PHE	R	70	60.965	5.207	-4.259	1.00	95.17	R	C
ATOM	1022	CD1	PHE	R	70	60.568	5.203	-2.929	1.00	95.74	R	C
ATOM	1023	CD2	PHE	R	70	60.045	4.949	-5.264	1.00	96.23	R	C
ATOM	1024	CE1	PHE	R	70	59.237	4.992	-2.605	1.00	97.29	R	C
ATOM	1025	CE2	PHE	R	70	58.710	4.738	-4.930	1.00	96.90	R	C
ATOM	1026	CZ	PHE	R	70	58.300	4.771	-3.603	1.00	97.37	R	C
ATOM	1027	C	PHE	R	70	64.654	5.310	-3.771	1.00	94.26	R	C
ATOM	1028	O	PHE	R	70	65.224	4.313	-3.375	1.00	95.64	R	O
ATOM	1029	N	GLY	R	71	65.237	6.162	-4.615	1.00	94.58	R	N
ATOM	1030	CA	GLY	R	71	66.672	6.058	-4.768	1.00	95.51	R	C
ATOM	1031	C	GLY	R	71	67.219	7.024	-5.802	1.00	95.90	R	C
ATOM	1032	O	GLY	R	71	68.398	7.131	-6.054	1.00	96.57	R	O
ATOM	1033	N	ASP	R	72	66.304	7.682	-6.464	1.00	95.39	R	N
ATOM	1034	CA	ASP	R	72	66.687	8.452	-7.620	1.00	94.78	R	C

	ATOM	1035	CB	ASP	R	72	66.031	7.782	-8.819	1.00	95.03	R	C
	ATOM	1036	CG	ASP	R	72	64.672	7.271	-8.383	1.00	95.22	R	C
	ATOM	1037	OD1	ASP	R	72	64.558	6.067	-8.149	1.00	95.40	R	O
	ATOM	1038	OD2	ASP	R	72	63.782	8.089	-8.174	1.00	95.61	R	O
5	ATOM	1039	C	ASP	R	72	66.169	9.821	-7.374	1.00	94.54	R	C
	ATOM	1040	O	ASP	R	72	66.092	10.692	-8.226	1.00	94.60	R	O
	ATOM	1041	N	LYS	R	73	65.708	9.868	-6.120	1.00	93.66	R	N
	ATOM	1042	CA	LYS	R	73	65.465	11.089	-5.397	1.00	92.22	R	C
	ATOM	1043	CB	LYS	R	73	66.404	12.182	-5.890	1.00	92.75	R	C
10	ATOM	1044	CG	LYS	R	73	67.506	12.424	-4.860	1.00	93.40	R	C
	ATOM	1045	CD	LYS	R	73	67.357	13.763	-4.135	1.00	93.68	R	C
	ATOM	1046	CE	LYS	R	73	68.037	13.777	-2.762	1.00	93.89	R	C
	ATOM	1047	NZ	LYS	R	73	69.488	13.668	-2.911	1.00	92.82	R	N
	ATOM	1048	C	LYS	R	73	64.001	11.473	-5.442	1.00	90.85	R	C
15	ATOM	1049	O	LYS	R	73	63.600	12.621	-5.317	1.00	90.69	R	O
	ATOM	1050	N	GLN	R	74	63.228	10.393	-5.600	1.00	89.30	R	N
	ATOM	1051	CA	GLN	R	74	61.805	10.441	-5.868	1.00	87.34	R	C
	ATOM	1052	CB	GLN	R	74	61.606	9.323	-6.899	1.00	88.25	R	C
	ATOM	1053	CG	GLN	R	74	60.377	9.479	-7.787	1.00	89.67	R	C
20	ATOM	1054	CD	GLN	R	74	60.643	8.798	-9.116	1.00	91.54	R	C
	ATOM	1055	OE1	GLN	R	74	61.026	9.404	-10.103	1.00	92.95	R	O
	ATOM	1056	NE2	GLN	R	74	60.357	7.480	-9.127	1.00	91.90	R	N
	ATOM	1057	C	GLN	R	74	61.033	10.092	-4.588	1.00	85.48	R	C
	ATOM	1058	O	GLN	R	74	61.214	9.035	-4.000	1.00	85.72	R	O
25	ATOM	1059	N	ASP	R	75	60.185	11.039	-4.128	1.00	83.23	R	N
	ATOM	1060	CA	ASP	R	75	59.332	10.746	-2.983	1.00	80.16	R	C
	ATOM	1061	CB	ASP	R	75	58.981	9.261	-3.011	1.00	82.21	R	C
	ATOM	1062	CG	ASP	R	75	57.502	9.096	-3.338	1.00	84.28	R	C
	ATOM	1063	OD1	ASP	R	75	57.164	9.141	-4.521	1.00	85.14	R	O
30	ATOM	1064	OD2	ASP	R	75	56.720	8.862	-2.420	1.00	84.69	R	O
	ATOM	1065	C	ASP	R	75	60.041	11.078	-1.661	1.00	77.76	R	C
	ATOM	1066	O	ASP	R	75	60.008	10.338	-0.685	1.00	76.11	R	O
	ATOM	1067	N	LYS	R	76	60.715	12.247	-1.666	1.00	75.72	R	N
	ATOM	1068	CA	LYS	R	76	61.444	12.689	-0.481	1.00	73.28	R	C
35	ATOM	1069	CB	LYS	R	76	62.046	14.065	-0.791	1.00	73.94	R	C
	ATOM	1070	CG	LYS	R	76	63.136	14.004	-1.863	1.00	73.68	R	C
	ATOM	1071	CD	LYS	R	76	63.971	15.285	-1.911	1.00	73.77	R	C
	ATOM	1072	CE	LYS	R	76	63.143	16.510	-2.309	1.00	74.55	R	C
	ATOM	1073	NZ	LYS	R	76	62.828	16.449	-3.735	1.00	75.61	R	N
40	ATOM	1074	C	LYS	R	76	60.526	12.788	0.730	1.00	72.29	R	C
	ATOM	1075	O	LYS	R	76	59.350	13.111	0.637	1.00	71.88	R	O
	ATOM	1076	N	LYS	R	77	61.096	12.452	1.902	1.00	70.63	R	N
	ATOM	1077	CA	LYS	R	77	60.330	12.588	3.133	1.00	69.48	R	C
	ATOM	1078	CB	LYS	R	77	59.496	11.319	3.333	1.00	67.92	R	C
45	ATOM	1079	CG	LYS	R	77	58.863	11.259	4.727	1.00	67.24	R	C
	ATOM	1080	CD	LYS	R	77	57.814	10.153	4.846	1.00	66.40	R	C
	ATOM	1081	CE	LYS	R	77	56.879	10.358	6.044	1.00	66.77	R	C
	ATOM	1082	NZ	LYS	R	77	55.637	9.616	5.830	1.00	67.40	R	N
	ATOM	1083	C	LYS	R	77	61.247	12.796	4.340	1.00	69.93	R	C
50	ATOM	1084	O	LYS	R	77	62.297	12.187	4.479	1.00	70.78	R	O
	ATOM	1085	N	ILE	R	78	60.836	13.727	5.215	1.00	69.90	R	N
	ATOM	1086	CA	ILE	R	78	61.586	13.920	6.450	1.00	69.23	R	C
	ATOM	1087	CB	ILE	R	78	62.195	15.319	6.435	1.00	70.19	R	C
	ATOM	1088	CG2	ILE	R	78	63.156	15.475	7.627	1.00	70.90	R	C
55	ATOM	1089	CG1	ILE	R	78	63.001	15.527	5.152	1.00	70.70	R	C
	ATOM	1090	CD1	ILE	R	78	63.489	16.969	5.006	1.00	68.74	R	C
	ATOM	1091	C	ILE	R	78	60.694	13.746	7.680	1.00	68.68	R	C
	ATOM	1092	O	ILE	R	78	59.701	14.435	7.869	1.00	67.88	R	O
	ATOM	1093	N	ALA	R	79	61.060	12.756	8.517	1.00	68.91	R	N
60	ATOM	1094	CA	ALA	R	79	60.281	12.512	9.724	1.00	69.16	R	C
	ATOM	1095	CB	ALA	R	79	59.107	11.601	9.360	1.00	68.88	R	C

ATOM	1096	C	ALA	R	79	61.129	11.860	10.819	1.00	70.08	R	C
ATOM	1097	O	ALA	R	79	62.184	11.289	10.576	1.00	69.58	R	O
ATOM	1098	N	PRO	R	80	60.650	11.997	12.070	1.00	70.73	R	N
ATOM	1099	CD	PRO	R	80	59.418	12.638	12.493	1.00	70.72	R	C
ATOM	1100	CA	PRO	R	80	61.365	11.478	13.228	1.00	71.37	R	C
ATOM	1101	CB	PRO	R	80	60.674	12.013	14.482	1.00	71.34	R	C
ATOM	1102	CG	PRO	R	80	59.556	12.963	14.052	1.00	71.52	R	C
ATOM	1103	C	PRO	R	80	61.366	9.949	13.255	1.00	71.72	R	C
ATOM	1104	O	PRO	R	80	62.344	9.298	13.601	1.00	71.37	R	O
ATOM	1105	N	GLU	R	81	60.199	9.377	12.912	1.00	71.96	R	N
ATOM	1106	CA	GLU	R	81	60.060	7.929	12.972	1.00	71.89	R	C
ATOM	1107	CB	GLU	R	81	58.701	7.554	12.380	1.00	71.77	R	C
ATOM	1108	C	GLU	R	81	61.171	7.213	12.203	1.00	72.33	R	C
ATOM	1109	O	GLU	R	81	61.605	7.627	11.135	1.00	72.11	R	O
ATOM	1110	N	THR	R	82	61.668	6.121	12.812	1.00	73.39	R	N
ATOM	1111	CA	THR	R	82	62.630	5.283	12.109	1.00	74.33	R	C
ATOM	1112	CB	THR	R	82	63.531	4.607	13.136	1.00	75.38	R	C
ATOM	1113	OG1	THR	R	82	62.729	3.844	14.038	1.00	76.17	R	O
ATOM	1114	CG2	THR	R	82	64.298	5.669	13.929	1.00	75.33	R	C
ATOM	1115	C	THR	R	82	61.892	4.218	11.297	1.00	73.70	R	C
ATOM	1116	O	THR	R	82	62.164	3.028	11.357	1.00	73.82	R	O
ATOM	1117	N	ARG	R	83	60.895	4.714	10.537	1.00	73.78	R	N
ATOM	1118	CA	ARG	R	83	59.978	3.835	9.819	1.00	73.66	R	C
ATOM	1119	CB	ARG	R	83	58.786	3.593	10.749	1.00	74.64	R	C
ATOM	1120	CG	ARG	R	83	58.272	2.154	10.702	1.00	76.22	R	C
ATOM	1121	CD	ARG	R	83	57.196	1.978	9.629	1.00	78.40	R	C
ATOM	1122	NE	ARG	R	83	55.847	1.899	10.201	1.00	79.66	R	N
ATOM	1123	CZ	ARG	R	83	54.934	2.805	9.789	1.00	80.93	R	C
ATOM	1124	NH1	ARG	R	83	55.312	3.854	9.074	1.00	80.54	R	N
ATOM	1125	NH2	ARG	R	83	53.636	2.491	9.860	1.00	80.52	R	N
ATOM	1126	C	ARG	R	83	59.488	4.525	8.542	1.00	72.68	R	C
ATOM	1127	O	ARG	R	83	59.068	5.673	8.542	1.00	72.88	R	O
ATOM	1128	N	ARG	R	84	59.598	3.805	7.411	1.00	70.90	R	N
ATOM	1129	CA	ARG	R	84	59.031	4.353	6.185	1.00	69.83	R	C
ATOM	1130	CB	ARG	R	84	60.154	4.823	5.262	1.00	69.23	R	C
ATOM	1131	CG	ARG	R	84	59.604	5.431	3.970	1.00	68.67	R	C
ATOM	1132	CD	ARG	R	84	59.507	6.960	4.043	1.00	69.89	R	C
ATOM	1133	NE	ARG	R	84	58.601	7.472	3.010	1.00	67.69	R	N
ATOM	1134	CZ	ARG	R	84	59.154	8.160	1.996	1.00	66.16	R	C
ATOM	1135	NH1	ARG	R	84	60.460	8.357	1.963	1.00	63.97	R	N
ATOM	1136	NH2	ARG	R	84	58.380	8.621	1.008	1.00	66.32	R	N
ATOM	1137	C	ARG	R	84	58.157	3.337	5.458	1.00	69.55	R	C
ATOM	1138	O	ARG	R	84	58.625	2.376	4.863	1.00	68.26	R	O
ATOM	1139	N	SER	R	85	56.836	3.565	5.554	1.00	69.16	R	N
ATOM	1140	CA	SER	R	85	55.906	2.676	4.881	1.00	69.24	R	C
ATOM	1141	CB	SER	R	85	54.733	2.413	5.824	1.00	68.28	R	C
ATOM	1142	OG	SER	R	85	53.828	1.499	5.204	1.00	66.67	R	O
ATOM	1143	C	SER	R	85	55.396	3.283	3.574	1.00	69.39	R	C
ATOM	1144	O	SER	R	85	55.016	4.444	3.493	1.00	69.33	R	O
ATOM	1145	N	ILE	R	86	55.437	2.458	2.511	1.00	70.46	R	N
ATOM	1146	CA	ILE	R	86	54.972	2.933	1.215	1.00	71.79	R	C
ATOM	1147	CB	ILE	R	86	56.195	3.312	0.379	1.00	71.58	R	C
ATOM	1148	CG2	ILE	R	86	55.744	3.879	-0.979	1.00	72.31	R	C
ATOM	1149	CG1	ILE	R	86	57.003	4.399	1.094	1.00	71.33	R	C
ATOM	1150	CD1	ILE	R	86	58.384	4.603	0.470	1.00	72.37	R	C
ATOM	1151	C	ILE	R	86	54.144	1.872	0.488	1.00	72.39	R	C
ATOM	1152	O	ILE	R	86	54.496	0.701	0.413	1.00	73.22	R	O
ATOM	1153	N	GLU	R	87	52.979	2.317	-0.019	1.00	73.42	R	N
ATOM	1154	CA	GLU	R	87	52.108	1.411	-0.758	1.00	74.10	R	C
ATOM	1155	CB	GLU	R	87	50.672	1.900	-0.574	1.00	73.40	R	C
ATOM	1156	CG	GLU	R	87	49.632	0.876	-1.028	1.00	75.07	R	C

	ATOM	1157	CD	GLU	R	87	48.275	1.302	-0.517	1.00	75.32	R	C
	ATOM	1158	OE1	GLU	R	87	47.877	0.841	0.543	1.00	76.51	R	O
	ATOM	1159	OE2	GLU	R	87	47.644	2.136	-1.165	1.00	74.90	R	O
	ATOM	1160	C	GLU	R	87	52.467	1.398	-2.246	1.00	75.06	R	C
5	ATOM	1161	O	GLU	R	87	51.997	2.201	-3.041	1.00	75.38	R	O
	ATOM	1162	N	VAL	R	88	53.367	0.464	-2.601	1.00	76.09	R	N
	ATOM	1163	CA	VAL	R	88	53.874	0.431	-3.967	1.00	77.64	R	C
	ATOM	1164	CB	VAL	R	88	55.369	0.746	-3.908	1.00	77.48	R	C
	ATOM	1165	CG1	VAL	R	88	56.029	0.416	-5.245	1.00	77.35	R	C
10	ATOM	1166	CG2	VAL	R	88	55.580	2.216	-3.591	1.00	78.41	R	C
	ATOM	1167	C	VAL	R	88	53.667	-0.949	-4.611	1.00	78.83	R	C
	ATOM	1168	O	VAL	R	88	53.779	-1.982	-3.975	1.00	79.09	R	O
	ATOM	1169	N	PRO	R	89	53.310	-0.918	-5.909	1.00	79.58	R	N
	ATOM	1170	CD	PRO	R	89	53.005	0.231	-6.738	1.00	79.45	R	C
15	ATOM	1171	CA	PRO	R	89	53.177	-2.154	-6.677	1.00	80.36	R	C
	ATOM	1172	CB	PRO	R	89	52.607	-1.797	-8.049	1.00	79.98	R	C
	ATOM	1173	CG	PRO	R	89	52.642	-0.279	-8.214	1.00	80.10	R	C
	ATOM	1174	C	PRO	R	89	54.529	-2.853	-6.830	1.00	80.61	R	C
	ATOM	1175	O	PRO	R	89	55.539	-2.256	-7.177	1.00	80.05	R	O
20	ATOM	1176	N	LEU	R	90	54.535	-4.163	-6.517	1.00	82.18	R	N
	ATOM	1177	CA	LEU	R	90	55.798	-4.893	-6.473	1.00	83.61	R	C
	ATOM	1178	CB	LEU	R	90	55.669	-5.986	-5.411	1.00	83.45	R	C
	ATOM	1179	CG	LEU	R	90	56.915	-6.102	-4.531	1.00	83.26	R	C
	ATOM	1180	CD1	LEU	R	90	58.057	-5.205	-5.012	1.00	82.85	R	C
25	ATOM	1181	CD2	LEU	R	90	56.649	-5.716	-3.077	1.00	83.25	R	C
	ATOM	1182	C	LEU	R	90	56.149	-5.531	-7.818	1.00	84.45	R	C
	ATOM	1183	O	LEU	R	90	56.305	-6.740	-7.946	1.00	84.45	R	O
	ATOM	1184	N	ASN	R	91	56.249	-4.678	-8.851	1.00	85.73	R	N
	ATOM	1185	CA	ASN	R	91	56.525	-5.209	-10.180	1.00	86.79	R	C
30	ATOM	1186	CB	ASN	R	91	55.775	-4.350	-11.198	1.00	87.26	R	C
	ATOM	1187	CG	ASN	R	91	54.294	-4.616	-11.082	1.00	87.64	R	C
	ATOM	1188	OD1	ASN	R	91	53.855	-5.727	-10.799	1.00	88.26	R	O
	ATOM	1189	ND2	ASN	R	91	53.504	-3.552	-11.309	1.00	88.14	R	N
	ATOM	1190	C	ASN	R	91	58.026	-5.224	-10.486	1.00	87.60	R	C
35	ATOM	1191	O	ASN	R	91	58.464	-5.525	-11.588	1.00	87.91	R	O
	ATOM	1192	N	GLU	R	92	58.824	-4.841	-9.468	1.00	88.44	R	N
	ATOM	1193	CA	GLU	R	92	60.272	-4.903	-9.638	1.00	89.44	R	C
	ATOM	1194	CB	GLU	R	92	60.628	-4.319	-11.005	1.00	91.03	R	C
	ATOM	1195	CG	GLU	R	92	60.945	-2.825	-10.947	1.00	92.82	R	C
40	ATOM	1196	CD	GLU	R	92	60.923	-2.262	-12.349	1.00	94.79	R	C
	ATOM	1197	OE1	GLU	R	92	61.180	-1.078	-12.510	1.00	95.91	R	O
	ATOM	1198	OE2	GLU	R	92	60.644	-3.020	-13.277	1.00	95.77	R	O
	ATOM	1199	C	GLU	R	92	61.038	-4.180	-8.523	1.00	89.16	R	C
	ATOM	1200	O	GLU	R	92	60.486	-3.467	-7.695	1.00	89.19	R	O
45	ATOM	1201	N	ARG	R	93	62.364	-4.423	-8.510	1.00	88.70	R	N
	ATOM	1202	CA	ARG	R	93	63.203	-3.932	-7.420	1.00	88.39	R	C
	ATOM	1203	CB	ARG	R	93	64.665	-4.113	-7.829	1.00	87.82	R	C
	ATOM	1204	C	ARG	R	93	62.939	-2.465	-7.066	1.00	87.79	R	C
	ATOM	1205	O	ARG	R	93	62.856	-1.587	-7.915	1.00	87.40	R	O
50	ATOM	1206	N	ILE	R	94	62.769	-2.230	-5.749	1.00	87.29	R	N
	ATOM	1207	CA	ILE	R	94	62.664	-0.862	-5.252	1.00	86.37	R	C
	ATOM	1208	CB	ILE	R	94	61.253	-0.652	-4.696	1.00	86.45	R	C
	ATOM	1209	CG2	ILE	R	94	61.094	0.802	-4.220	1.00	86.59	R	C
	ATOM	1210	CG1	ILE	R	94	60.207	-0.907	-5.784	1.00	86.32	R	C
55	ATOM	1211	CD1	ILE	R	94	58.881	-1.413	-5.208	1.00	86.05	R	C
	ATOM	1212	C	ILE	R	94	63.695	-0.604	-4.147	1.00	85.38	R	C
	ATOM	1213	O	ILE	R	94	63.836	-1.364	-3.198	1.00	84.68	R	O
	ATOM	1214	N	CYS	R	95	64.457	0.492	-4.319	1.00	85.21	R	N
	ATOM	1215	CA	CYS	R	95	65.507	0.790	-3.358	1.00	85.65	R	C
60	ATOM	1216	C	CYS	R	95	65.252	2.112	-2.629	1.00	85.09	R	C
	ATOM	1217	O	CYS	R	95	64.956	3.144	-3.216	1.00	86.18	R	O

ATOM	1218	CB	CYS	R	95	66.840	0.862	-4.097	1.00	85.94	R	C
ATOM	1219	SG	CYS	R	95	67.232	-0.692	-4.935	1.00	87.89	R	S
ATOM	1220	N	LEU	R	96	65.336	2.029	-1.288	1.00	83.68	R	N
ATOM	1221	CA	LEU	R	96	65.177	3.219	-0.460	1.00	82.89	R	C
ATOM	1222	CB	LEU	R	96	64.174	2.881	0.646	1.00	83.32	R	C
ATOM	1223	CG	LEU	R	96	63.814	4.096	1.504	1.00	84.29	R	C
ATOM	1224	CD1	LEU	R	96	62.885	3.732	2.664	1.00	84.58	R	C
ATOM	1225	CD2	LEU	R	96	65.036	4.766	2.130	1.00	84.50	R	C
ATOM	1226	C	LEU	R	96	66.513	3.625	0.164	1.00	82.63	R	C
ATOM	1227	O	LEU	R	96	67.326	2.802	0.561	1.00	82.88	R	O
ATOM	1228	N	GLN	R	97	66.746	4.949	0.200	1.00	81.96	R	N
ATOM	1229	CA	GLN	R	97	67.965	5.448	0.831	1.00	81.67	R	C
ATOM	1230	CB	GLN	R	97	68.768	6.217	-0.219	1.00	82.00	R	C
ATOM	1231	CG	GLN	R	97	68.849	5.471	-1.553	1.00	83.05	R	C
ATOM	1232	CD	GLN	R	97	69.895	6.119	-2.429	1.00	84.66	R	C
ATOM	1233	OE1	GLN	R	97	70.197	7.298	-2.343	1.00	85.58	R	O
ATOM	1234	NE2	GLN	R	97	70.450	5.278	-3.324	1.00	85.66	R	N
ATOM	1235	C	GLN	R	97	67.641	6.363	2.015	1.00	81.37	R	C
ATOM	1236	O	GLN	R	97	66.796	7.246	1.945	1.00	81.46	R	O
ATOM	1237	N	VAL	R	98	68.323	6.104	3.149	1.00	80.64	R	N
ATOM	1238	CA	VAL	R	98	67.991	6.848	4.359	1.00	80.06	R	C
ATOM	1239	CB	VAL	R	98	67.544	5.854	5.429	1.00	79.37	R	C
ATOM	1240	CG1	VAL	R	98	67.098	6.608	6.681	1.00	79.32	R	C
ATOM	1241	CG2	VAL	R	98	66.385	5.026	4.909	1.00	78.50	R	C
ATOM	1242	C	VAL	R	98	69.157	7.690	4.880	1.00	81.16	R	C
ATOM	1243	O	VAL	R	98	70.318	7.298	4.862	1.00	81.24	R	O
ATOM	1244	N	GLY	R	99	68.812	8.909	5.331	1.00	81.88	R	N
ATOM	1245	CA	GLY	R	99	69.837	9.776	5.891	1.00	82.68	R	C
ATOM	1246	C	GLY	R	99	69.464	10.232	7.305	1.00	84.10	R	C
ATOM	1247	O	GLY	R	99	68.411	9.924	7.841	1.00	83.64	R	O
ATOM	1248	N	SER	R	100	70.396	10.959	7.931	1.00	85.90	R	N
ATOM	1249	CA	SER	R	100	70.121	11.415	9.284	1.00	87.83	R	C
ATOM	1250	CB	SER	R	100	70.710	10.397	10.265	1.00	87.47	R	C
ATOM	1251	OG	SER	R	100	71.800	9.715	9.644	1.00	88.31	R	O
ATOM	1252	C	SER	R	100	70.709	12.796	9.550	1.00	89.25	R	C
ATOM	1253	O	SER	R	100	71.786	13.162	9.082	1.00	89.46	R	O
ATOM	1254	N	GLN	R	101	69.936	13.598	10.288	1.00	91.48	R	N
ATOM	1255	CA	GLN	R	101	70.425	14.879	10.717	1.00	93.60	R	C
ATOM	1256	CB	GLN	R	101	70.213	15.904	9.576	1.00	94.44	R	C
ATOM	1257	CG	GLN	R	101	71.127	17.132	9.692	1.00	96.46	R	C
ATOM	1258	CD	GLN	R	101	71.264	17.819	8.347	1.00	98.38	R	C
ATOM	1259	OE1	GLN	R	101	72.104	18.676	8.125	1.00	98.68	R	O
ATOM	1260	NE2	GLN	R	101	70.364	17.416	7.428	1.00	99.02	R	N
ATOM	1261	C	GLN	R	101	69.730	15.338	11.984	1.00	94.64	R	C
ATOM	1262	O	GLN	R	101	68.847	14.680	12.548	1.00	94.60	R	O
ATOM	1263	N	CYS	R	102	70.231	16.468	12.502	1.00	96.32	R	N
ATOM	1264	CA	CYS	R	102	69.461	17.283	13.413	1.00	98.14	R	C
ATOM	1265	C	CYS	R	102	68.847	18.509	12.703	1.00	98.53	R	C
ATOM	1266	O	CYS	R	102	69.462	19.202	11.916	1.00	98.75	R	O
ATOM	1267	CB	CYS	R	102	70.380	17.718	14.572	1.00	100.07	R	C
ATOM	1268	SG	CYS	R	102	71.772	16.589	14.795	1.00	103.24	R	S
ATOM	1269	N	SER	R	103	67.548	18.696	12.995	1.00	98.95	R	N
ATOM	1270	CA	SER	R	103	66.595	19.624	12.355	1.00	99.38	R	C
ATOM	1271	CB	SER	R	103	66.606	20.940	13.115	1.00	98.08	R	C
ATOM	1272	OG	SER	R	103	65.536	20.923	14.065	1.00	96.68	R	O
ATOM	1273	C	SER	R	103	66.688	19.831	10.821	1.00	99.93	R	C
ATOM	1274	O	SER	R	103	67.649	20.353	10.244	1.00	99.98	R	O
ATOM	1275	N	THR	R	104	65.642	19.195	10.439	1.00	99.96	R	N
ATOM	1276	CA	THR	R	104	65.032	19.704	9.178	1.00	99.76	R	C
ATOM	1277	CB	THR	R	104	64.043	20.795	9.529	1.00	100.10	R	C
ATOM	1278	C	THR	R	104	66.026	20.149	8.072	1.00	100.47	R	C

ATOM	1279	O	THR	R	104	65.699	20.769	7.076	1.00	100.37	R	O
ATOM	1280	N	ASN	R	105	67.276	19.782	7.996	1.00	100.21	R	N
ATOM	1281	CA	ASN	R	105	68.419	20.151	7.115	1.00	99.27	R	C
ATOM	1282	CB	ASN	R	105	69.653	19.323	7.589	1.00	97.89	R	C
ATOM	1283	C	ASN	R	105	68.288	19.916	5.567	1.00	99.40	R	C
ATOM	1284	O	ASN	R	105	67.455	19.207	5.023	1.00	100.19	R	O
ATOM	1285	N	PRO	R	110	72.314	16.855	4.636	1.00	100.55	R	N
ATOM	1286	CA	PRO	R	110	72.840	15.913	5.617	1.00	100.45	R	C
ATOM	1287	CB	PRO	R	110	71.986	14.672	5.770	1.00	101.19	R	C
ATOM	1288	C	PRO	R	110	73.978	15.072	5.036	1.00	101.27	R	C
ATOM	1289	O	PRO	R	110	74.344	15.403	3.916	1.00	101.62	R	O
ATOM	1290	N	SER	R	111	74.750	14.116	5.919	1.00	100.19	R	N
ATOM	1291	CA	SER	R	111	75.399	13.143	5.074	1.00	99.29	R	C
ATOM	1292	CB	SER	R	111	76.872	13.512	4.960	1.00	97.71	R	C
ATOM	1293	C	SER	R	111	75.341	11.764	5.668	1.00	98.69	R	C
ATOM	1294	O	SER	R	111	75.754	11.461	6.807	1.00	98.52	R	O
ATOM	1295	N	ILE	R	112	74.746	10.922	4.840	1.00	99.04	R	N
ATOM	1296	CA	ILE	R	112	75.165	9.539	4.751	1.00	99.58	R	C
ATOM	1297	CB	ILE	R	112	76.692	9.451	4.699	1.00	99.70	R	C
ATOM	1298	C	ILE	R	112	74.419	8.805	3.609	1.00	99.23	R	C
ATOM	1299	O	ILE	R	112	74.281	9.299	2.486	1.00	100.32	R	O
ATOM	1300	N	LEU	R	113	73.927	7.616	3.933	1.00	97.67	R	N
ATOM	1301	CA	LEU	R	113	72.906	7.051	3.045	1.00	94.72	R	C
ATOM	1302	CB	LEU	R	113	72.909	7.791	1.691	1.00	93.23	R	C
ATOM	1303	CG	LEU	R	113	72.331	9.214	1.777	1.00	92.82	R	C
ATOM	1304	CD1	LEU	R	113	71.476	9.616	0.561	1.00	91.70	R	C
ATOM	1305	CD2	LEU	R	113	71.410	9.399	3.013	1.00	91.48	R	C
ATOM	1306	C	LEU	R	113	73.160	5.560	2.873	1.00	93.45	R	C
ATOM	1307	O	LEU	R	113	74.056	5.139	2.154	1.00	93.20	R	O
ATOM	1308	N	VAL	R	114	72.380	4.736	3.637	1.00	91.73	R	N
ATOM	1309	CA	VAL	R	114	72.514	3.279	3.525	1.00	90.61	R	C
ATOM	1310	CB	VAL	R	114	72.534	2.706	4.935	1.00	89.74	R	C
ATOM	1311	CG1	VAL	R	114	72.373	3.859	5.915	1.00	89.47	R	C
ATOM	1312	CG2	VAL	R	114	71.374	1.750	5.134	1.00	88.54	R	C
ATOM	1313	C	VAL	R	114	71.342	2.683	2.746	1.00	90.72	R	C
ATOM	1314	O	VAL	R	114	70.199	2.822	3.164	1.00	91.38	R	O
ATOM	1315	N	GLU	R	115	71.712	2.188	1.554	1.00	90.13	R	N
ATOM	1316	CA	GLU	R	115	70.695	1.671	0.650	1.00	89.00	R	C
ATOM	1317	CB	GLU	R	115	71.318	1.546	-0.742	1.00	89.81	R	C
ATOM	1318	CG	GLU	R	115	70.350	1.942	-1.858	1.00	92.85	R	C
ATOM	1319	CD	GLU	R	115	71.063	1.864	-3.189	1.00	94.83	R	C
ATOM	1320	OE1	GLU	R	115	72.217	1.458	-3.213	1.00	95.98	R	O
ATOM	1321	OE2	GLU	R	115	70.456	2.217	-4.199	1.00	96.12	R	O
ATOM	1322	C	GLU	R	115	70.185	0.306	1.110	1.00	87.30	R	C
ATOM	1323	O	GLU	R	115	70.909	-0.514	1.660	1.00	87.71	R	O
ATOM	1324	N	LYS	R	116	68.874	0.096	0.916	1.00	85.67	R	N
ATOM	1325	CA	LYS	R	116	68.332	-1.235	1.126	1.00	84.17	R	C
ATOM	1326	CB	LYS	R	116	67.757	-1.337	2.534	1.00	83.58	R	C
ATOM	1327	CG	LYS	R	116	67.431	-2.785	2.904	1.00	83.44	R	C
ATOM	1328	CD	LYS	R	116	67.624	-3.735	1.718	1.00	84.45	R	C
ATOM	1329	CE	LYS	R	116	68.553	-4.910	2.046	1.00	85.52	R	C
ATOM	1330	NZ	LYS	R	116	69.779	-4.808	1.255	1.00	85.59	R	N
ATOM	1331	C	LYS	R	116	67.248	-1.545	0.097	1.00	83.73	R	C
ATOM	1332	O	LYS	R	116	66.214	-0.904	0.017	1.00	83.67	R	O
ATOM	1333	N	CYS	R	117	67.530	-2.544	-0.747	1.00	83.52	R	N
ATOM	1334	CA	CYS	R	117	66.550	-2.801	-1.795	1.00	83.42	R	C
ATOM	1335	C	CYS	R	117	65.652	-3.988	-1.441	1.00	82.84	R	C
ATOM	1336	O	CYS	R	117	65.897	-4.726	-0.495	1.00	82.32	R	O
ATOM	1337	CB	CYS	R	117	67.306	-3.088	-3.094	1.00	84.02	R	C
ATOM	1338	SG	CYS	R	117	68.355	-1.705	-3.595	1.00	86.02	R	S
ATOM	1339	N	ILE	R	118	64.545	-4.039	-2.208	1.00	82.77	R	N

	ATOM	1340	CA	ILE	R	118	63.714	-5.216	-2.171	1.00	82.48	R	C
	ATOM	1341	CB	ILE	R	118	62.480	-5.009	-1.286	1.00	81.38	R	C
	ATOM	1342	CG2	ILE	R	118	61.646	-3.807	-1.763	1.00	80.82	R	C
	ATOM	1343	CG1	ILE	R	118	61.620	-6.260	-1.436	1.00	80.74	R	C
5	ATOM	1344	CD1	ILE	R	118	60.414	-6.308	-0.523	1.00	80.72	R	C
	ATOM	1345	C	ILE	R	118	63.304	-5.663	-3.565	1.00	83.51	R	C
	ATOM	1346	O	ILE	R	118	62.966	-4.886	-4.439	1.00	82.68	R	O
	ATOM	1347	N	SER	R	119	63.361	-6.981	-3.749	1.00	85.39	R	N
	ATOM	1348	CA	SER	R	119	63.152	-7.476	-5.110	1.00	87.60	R	C
10	ATOM	1349	CB	SER	R	119	64.288	-8.446	-5.451	1.00	87.46	R	C
	ATOM	1350	OG	SER	R	119	65.357	-7.750	-6.088	1.00	88.64	R	O
	ATOM	1351	C	SER	R	119	61.834	-8.220	-5.234	1.00	89.11	R	C
	ATOM	1352	O	SER	R	119	61.298	-8.757	-4.272	1.00	89.37	R	O
	ATOM	1353	N	PRO	R	120	61.292	-8.233	-6.467	1.00	90.55	R	N
15	ATOM	1354	CD	PRO	R	120	61.793	-7.579	-7.673	1.00	90.50	R	C
	ATOM	1355	CA	PRO	R	120	60.061	-8.965	-6.760	1.00	91.85	R	C
	ATOM	1356	CB	PRO	R	120	59.837	-8.901	-8.271	1.00	91.34	R	C
	ATOM	1357	CG	PRO	R	120	61.078	-8.283	-8.926	1.00	90.81	R	C
	ATOM	1358	C	PRO	R	120	60.195	-10.427	-6.337	1.00	93.40	R	C
20	ATOM	1359	O	PRO	R	120	61.246	-10.897	-5.963	1.00	93.51	R	O
	ATOM	1360	N	PRO	R	121	59.052	-11.126	-6.319	1.00	94.80	R	N
	ATOM	1361	CD	PRO	R	121	57.679	-10.642	-6.320	1.00	95.24	R	C
	ATOM	1362	CA	PRO	R	121	59.031	-12.588	-6.186	1.00	95.66	R	C
	ATOM	1363	CB	PRO	R	121	57.585	-13.050	-6.073	1.00	95.53	R	C
25	ATOM	1364	CG	PRO	R	121	56.733	-11.825	-5.792	1.00	95.40	R	C
	ATOM	1365	C	PRO	R	121	59.710	-13.314	-7.354	1.00	96.27	R	C
	ATOM	1366	O	PRO	R	121	60.232	-12.728	-8.290	1.00	96.65	R	O
	ATOM	1367	N	GLU	R	122	59.712	-14.654	-7.263	1.00	96.69	R	N
	ATOM	1368	CA	GLU	R	122	60.466	-15.436	-8.239	1.00	97.64	R	C
30	ATOM	1369	CB	GLU	R	122	60.754	-16.811	-7.647	1.00	98.18	R	C
	ATOM	1370	C	GLU	R	122	59.750	-15.566	-9.580	1.00	97.83	R	C
	ATOM	1371	O	GLU	R	122	58.765	-14.900	-9.861	1.00	98.16	R	O
	ATOM	1372	N	GLY	R	123	60.290	-16.456	-10.440	1.00	98.23	R	N
	ATOM	1373	CA	GLY	R	123	59.903	-16.367	-11.846	1.00	98.34	R	C
35	ATOM	1374	C	GLY	R	123	60.096	-14.924	-12.276	1.00	98.41	R	C
	ATOM	1375	O	GLY	R	123	60.612	-14.096	-11.527	1.00	97.99	R	O
	ATOM	1376	N	ASP	R	124	59.740	-14.604	-13.517	1.00	98.66	R	N
	ATOM	1377	CA	ASP	R	124	59.442	-15.503	-14.620	1.00	98.83	R	C
	ATOM	1378	CB	ASP	R	124	59.960	-16.929	-14.423	1.00	98.61	R	C
40	ATOM	1379	C	ASP	R	124	59.663	-14.888	-15.999	1.00	98.97	R	C
	ATOM	1380	O	ASP	R	124	59.298	-15.411	-17.040	1.00	98.84	R	O
	ATOM	1381	N	PRO	R	125	60.276	-13.683	-15.943	1.00	99.06	R	N
	ATOM	1382	CD	PRO	R	125	60.842	-13.053	-14.762	1.00	99.07	R	C
	ATOM	1383	CA	PRO	R	125	60.488	-12.806	-17.076	1.00	99.15	R	C
45	ATOM	1384	CB	PRO	R	125	61.557	-11.780	-16.757	1.00	98.98	R	C
	ATOM	1385	CG	PRO	R	125	61.684	-11.758	-15.228	1.00	99.03	R	C
	ATOM	1386	C	PRO	R	125	59.183	-12.245	-17.658	1.00	98.89	R	C
	ATOM	1387	O	PRO	R	125	58.874	-11.068	-17.541	1.00	98.69	R	O
	ATOM	1388	N	GLU	R	126	58.446	-13.145	-18.351	1.00	98.52	R	N
50	ATOM	1389	CA	GLU	R	126	57.012	-12.938	-18.505	1.00	98.29	R	C
	ATOM	1390	CB	GLU	R	126	56.502	-13.566	-19.812	1.00	99.27	R	C
	ATOM	1391	CG	GLU	R	126	56.541	-12.662	-21.043	1.00	102.26	R	C
	ATOM	1392	CD	GLU	R	126	55.852	-11.335	-20.795	1.00	105.09	R	C
	ATOM	1393	OE1	GLU	R	126	54.628	-11.301	-20.704	1.00	106.59	R	O
55	ATOM	1394	OE2	GLU	R	126	56.540	-10.316	-20.869	1.00	105.98	R	O
	ATOM	1395	C	GLU	R	126	56.272	-13.649	-17.392	1.00	97.16	R	C
	ATOM	1396	O	GLU	R	126	56.659	-13.635	-16.227	1.00	97.88	R	O
	ATOM	1397	N	SER	R	127	55.187	-14.322	-17.835	1.00	95.40	R	N
	ATOM	1398	CA	SER	R	127	54.401	-15.089	-16.897	1.00	93.82	R	C
60	ATOM	1399	CB	SER	R	127	55.389	-15.802	-15.987	1.00	93.96	R	C
	ATOM	1400	OG	SER	R	127	56.514	-14.940	-15.779	1.00	94.37	R	O

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ATOM   1401  C   SER R 127      53.518 -14.151 -16.082  1.00 92.55      R    C
ATOM   1402  O   SER R 127      52.410 -14.462 -15.681  1.00 92.49      R    O
ATOM   1403  N   ALA R 128      54.072 -12.966 -15.792  1.00 91.22      R    N
ATOM   1404  CA  ALA R 128      53.280 -11.874 -15.294  1.00 89.83      R    C
ATOM   1405  CB  ALA R 128      54.233 -10.749 -14.877  1.00 90.27      R    C
ATOM   1406  C   ALA R 128      52.291 -11.385 -16.357  1.00 89.00      R    C
ATOM   1407  O   ALA R 128      52.593 -11.270 -17.547  1.00 89.71      R    O
ATOM   1408  N   VAL R 129      51.043 -11.174 -15.890  1.00 87.77      R    N
ATOM   1409  CA  VAL R 129      50.001 -10.665 -16.765  1.00 86.32      R    C
ATOM   1410  CB  VAL R 129      48.672 -10.733 -16.005  1.00 86.35      R    C
ATOM   1411  CG1 VAL R 129      48.937 -11.160 -14.558  1.00 86.60      R    C
ATOM   1412  CG2 VAL R 129      48.001  -9.372 -16.008  1.00 87.18      R    C
ATOM   1413  C   VAL R 129      50.293  -9.209 -17.159  1.00 84.92      R    C
ATOM   1414  O   VAL R 129      51.181  -8.563 -16.623  1.00 84.48      R    O
ATOM   1415  N   THR R 130      49.543  -8.723 -18.164  1.00 83.78      R    N
ATOM   1416  CA  THR R 130      49.720  -7.344 -18.604  1.00 83.06      R    C
ATOM   1417  CB  THR R 130      50.487  -7.341 -19.933  1.00 83.42      R    C
ATOM   1418  OG1 THR R 130      49.697  -7.975 -20.935  1.00 85.56      R    O
ATOM   1419  CG2 THR R 130      51.791  -8.120 -19.765  1.00 84.04      R    C
ATOM   1420  C   THR R 130      48.388  -6.605 -18.755  1.00 82.58      R    C
ATOM   1421  O   THR R 130      47.346  -7.176 -19.059  1.00 81.67      R    O
ATOM   1422  N   GLU R 131      48.453  -5.287 -18.472  1.00 82.27      R    N
ATOM   1423  CA  GLU R 131      47.280  -4.438 -18.639  1.00 81.66      R    C
ATOM   1424  CB  GLU R 131      46.754  -4.623 -20.063  1.00 84.16      R    C
ATOM   1425  CG  GLU R 131      47.786  -4.215 -21.115  1.00 87.93      R    C
ATOM   1426  CD  GLU R 131      47.177  -4.323 -22.494  1.00 89.79      R    C
ATOM   1427  OE1 GLU R 131      46.187  -5.025 -22.643  1.00 91.97      R    O
ATOM   1428  OE2 GLU R 131      47.707  -3.706 -23.417  1.00 90.84      R    O
ATOM   1429  C   GLU R 131      46.192  -4.785 -17.621  1.00 79.25      R    C
ATOM   1430  O   GLU R 131      45.052  -5.087 -17.952  1.00 78.94      R    O
ATOM   1431  N   LEU R 132      46.601  -4.772 -16.340  1.00 76.59      R    N
ATOM   1432  CA  LEU R 132      45.667  -5.109 -15.275  1.00 74.32      R    C
ATOM   1433  CB  LEU R 132      46.444  -5.852 -14.186  1.00 72.56      R    C
ATOM   1434  CG  LEU R 132      45.695  -5.895 -12.852  1.00 72.22      R    C
ATOM   1435  CD1 LEU R 132      44.557  -6.918 -12.857  1.00 70.16      R    C
ATOM   1436  CD2 LEU R 132      46.600  -6.269 -11.679  1.00 70.71      R    C
ATOM   1437  C   LEU R 132      45.014  -3.859 -14.684  1.00 73.89      R    C
ATOM   1438  O   LEU R 132      45.555  -3.191 -13.812  1.00 73.40      R    O
ATOM   1439  N   GLN R 133      43.829  -3.521 -15.225  1.00 74.00      R    N
ATOM   1440  CA  GLN R 133      43.092  -2.388 -14.678  1.00 73.58      R    C
ATOM   1441  CB  GLN R 133      42.967  -1.312 -15.759  1.00 76.12      R    C
ATOM   1442  CG  GLN R 133      42.873  -1.889 -17.172  1.00 79.10      R    C
ATOM   1443  CD  GLN R 133      43.181  -0.798 -18.172  1.00 81.25      R    C
ATOM   1444  OE1 GLN R 133      42.316  -0.179 -18.770  1.00 82.23      R    O
ATOM   1445  NE2 GLN R 133      44.499  -0.562 -18.329  1.00 81.66      R    N
ATOM   1446  C   GLN R 133      41.702  -2.801 -14.184  1.00 71.52      R    C
ATOM   1447  O   GLN R 133      41.087  -3.744 -14.665  1.00 72.04      R    O
ATOM   1448  N   CYS R 134      41.232  -2.078 -13.152  1.00 68.85      R    N
ATOM   1449  CA  CYS R 134      39.920  -2.382 -12.597  1.00 66.75      R    C
ATOM   1450  C   CYS R 134      38.960  -1.204 -12.765  1.00 64.31      R    C
ATOM   1451  O   CYS R 134      39.351  -0.096 -13.109  1.00 63.78      R    O
ATOM   1452  CB  CYS R 134      40.101  -2.704 -11.113  1.00 68.38      R    C
ATOM   1453  SG  CYS R 134      41.160  -4.144 -10.850  1.00 70.34      R    S
ATOM   1454  N   ILE R 135      37.670  -1.507 -12.551  1.00 61.85      R    N
ATOM   1455  CA  ILE R 135      36.651  -0.466 -12.585  1.00 58.36      R    C
ATOM   1456  CB  ILE R 135      35.924  -0.554 -13.929  1.00 57.94      R    C
ATOM   1457  CG2 ILE R 135      34.513   0.051 -13.804  1.00 54.74      R    C
ATOM   1458  CG1 ILE R 135      36.684   0.235 -15.002  1.00 57.50      R    C
ATOM   1459  CD1 ILE R 135      36.044   0.094 -16.383  1.00 58.96      R    C
ATOM   1460  C   ILE R 135      35.652  -0.668 -11.443  1.00 57.95      R    C
ATOM   1461  O   ILE R 135      35.214  -1.773 -11.154  1.00 58.25      R    O
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ATOM	1462	N	TRP	R	136	35.325	0.439	-10.754	1.00	56.24	R	N
ATOM	1463	CA	TRP	R	136	34.426	0.325	-9.612	1.00	56.61	R	C
ATOM	1464	CB	TRP	R	136	34.890	1.306	-8.532	1.00	55.50	R	C
ATOM	1465	CG	TRP	R	136	34.309	0.949	-7.214	1.00	53.54	R	C
ATOM	1466	CD2	TRP	R	136	34.362	1.749	-6.011	1.00	54.02	R	C
ATOM	1467	CE2	TRP	R	136	33.698	1.024	-4.991	1.00	54.07	R	C
ATOM	1468	CE3	TRP	R	136	34.884	3.007	-5.728	1.00	55.35	R	C
ATOM	1469	CD1	TRP	R	136	33.613	-0.236	-6.877	1.00	54.39	R	C
ATOM	1470	NE1	TRP	R	136	33.229	-0.260	-5.572	1.00	54.86	R	N
ATOM	1471	CZ2	TRP	R	136	33.579	1.569	-3.722	1.00	54.29	R	C
ATOM	1472	CZ3	TRP	R	136	34.763	3.552	-4.462	1.00	55.57	R	C
ATOM	1473	CH2	TRP	R	136	34.101	2.830	-3.454	1.00	54.57	R	C
ATOM	1474	C	TRP	R	136	32.972	0.614	-10.000	1.00	56.90	R	C
ATOM	1475	O	TRP	R	136	32.566	1.751	-10.199	1.00	58.05	R	O
ATOM	1476	N	HIS	R	137	32.172	-0.466	-10.142	1.00	56.91	R	N
ATOM	1477	CA	HIS	R	137	30.800	-0.300	-10.621	1.00	56.03	R	C
ATOM	1478	CB	HIS	R	137	30.303	-1.640	-11.161	1.00	55.23	R	C
ATOM	1479	CG	HIS	R	137	30.875	-1.874	-12.533	1.00	54.71	R	C
ATOM	1480	CD2	HIS	R	137	30.191	-2.030	-13.744	1.00	55.22	R	C
ATOM	1481	ND1	HIS	R	137	32.201	-2.030	-12.764	1.00	55.84	R	N
ATOM	1482	CE1	HIS	R	137	32.312	-2.281	-14.080	1.00	55.03	R	C
ATOM	1483	NE2	HIS	R	137	31.126	-2.287	-14.693	1.00	56.00	R	N
ATOM	1484	C	HIS	R	137	29.840	0.183	-9.529	1.00	56.49	R	C
ATOM	1485	O	HIS	R	137	29.586	-0.487	-8.535	1.00	58.18	R	O
ATOM	1486	N	ASN	R	138	29.330	1.415	-9.739	1.00	56.21	R	N
ATOM	1487	CA	ASN	R	138	28.227	1.922	-8.924	1.00	57.44	R	C
ATOM	1488	CB	ASN	R	138	26.999	1.050	-9.197	1.00	58.23	R	C
ATOM	1489	CG	ASN	R	138	25.749	1.805	-8.827	1.00	60.13	R	C
ATOM	1490	OD1	ASN	R	138	24.829	1.272	-8.212	1.00	61.30	R	O
ATOM	1491	ND2	ASN	R	138	25.729	3.095	-9.205	1.00	59.12	R	N
ATOM	1492	C	ASN	R	138	28.559	1.952	-7.426	1.00	58.33	R	C
ATOM	1493	O	ASN	R	138	27.689	1.976	-6.563	1.00	57.09	R	O
ATOM	1494	N	LEU	R	139	29.881	1.931	-7.145	1.00	59.77	R	N
ATOM	1495	CA	LEU	R	139	30.374	1.919	-5.763	1.00	60.87	R	C
ATOM	1496	CB	LEU	R	139	29.862	3.163	-5.020	1.00	59.70	R	C
ATOM	1497	CG	LEU	R	139	30.334	4.505	-5.599	1.00	59.75	R	C
ATOM	1498	CD1	LEU	R	139	29.998	5.673	-4.669	1.00	57.96	R	C
ATOM	1499	CD2	LEU	R	139	31.841	4.582	-5.839	1.00	58.45	R	C
ATOM	1500	C	LEU	R	139	29.939	0.651	-5.005	1.00	62.49	R	C
ATOM	1501	O	LEU	R	139	29.739	0.662	-3.799	1.00	63.40	R	O
ATOM	1502	N	SER	R	140	29.775	-0.460	-5.765	1.00	63.81	R	N
ATOM	1503	CA	SER	R	140	29.161	-1.676	-5.226	1.00	65.20	R	C
ATOM	1504	CB	SER	R	140	27.857	-1.904	-6.005	1.00	65.90	R	C
ATOM	1505	OG	SER	R	140	26.752	-1.372	-5.276	1.00	68.36	R	O
ATOM	1506	C	SER	R	140	30.048	-2.920	-5.404	1.00	65.22	R	C
ATOM	1507	O	SER	R	140	30.173	-3.762	-4.521	1.00	66.71	R	O
ATOM	1508	N	TYR	R	141	30.561	-3.062	-6.650	1.00	64.75	R	N
ATOM	1509	CA	TYR	R	141	31.504	-4.140	-6.975	1.00	64.42	R	C
ATOM	1510	CB	TYR	R	141	30.764	-5.360	-7.555	1.00	65.04	R	C
ATOM	1511	CG	TYR	R	141	30.270	-5.103	-8.947	1.00	66.11	R	C
ATOM	1512	CD1	TYR	R	141	31.014	-5.507	-10.064	1.00	66.95	R	C
ATOM	1513	CE1	TYR	R	141	30.470	-5.399	-11.345	1.00	67.61	R	C
ATOM	1514	CD2	TYR	R	141	28.984	-4.600	-9.136	1.00	67.12	R	C
ATOM	1515	CE2	TYR	R	141	28.448	-4.488	-10.409	1.00	68.39	R	C
ATOM	1516	CZ	TYR	R	141	29.187	-4.867	-11.512	1.00	69.06	R	C
ATOM	1517	OH	TYR	R	141	28.686	-4.663	-12.784	1.00	70.63	R	O
ATOM	1518	C	TYR	R	141	32.562	-3.673	-7.969	1.00	64.10	R	C
ATOM	1519	O	TYR	R	141	32.363	-2.768	-8.768	1.00	62.44	R	O
ATOM	1520	N	MET	R	142	33.729	-4.322	-7.860	1.00	63.99	R	N
ATOM	1521	CA	MET	R	142	34.866	-3.989	-8.702	1.00	65.48	R	C
ATOM	1522	CB	MET	R	142	36.087	-3.829	-7.792	1.00	67.21	R	C

ATOM	1523	CG	MET	R	142	37.378	-3.604	-8.578	1.00	70.81	R	C
ATOM	1524	SD	MET	R	142	38.408	-2.330	-7.838	1.00	77.72	R	S
ATOM	1525	CE	MET	R	142	37.167	-1.030	-7.767	1.00	73.36	R	C
ATOM	1526	C	MET	R	142	35.114	-5.094	-9.727	1.00	66.17	R	C
ATOM	1527	O	MET	R	142	35.148	-6.274	-9.414	1.00	66.91	R	O
ATOM	1528	N	LYS	R	143	35.228	-4.675	-10.996	1.00	66.36	R	N
ATOM	1529	CA	LYS	R	143	35.483	-5.639	-12.054	1.00	67.05	R	C
ATOM	1530	CB	LYS	R	143	34.401	-5.434	-13.123	1.00	67.92	R	C
ATOM	1531	CG	LYS	R	143	34.352	-6.571	-14.136	1.00	69.19	R	C
ATOM	1532	CD	LYS	R	143	34.202	-6.060	-15.569	1.00	71.27	R	C
ATOM	1533	CE	LYS	R	143	33.224	-6.905	-16.390	1.00	71.16	R	C
ATOM	1534	NZ	LYS	R	143	31.854	-6.602	-15.994	1.00	71.43	R	N
ATOM	1535	C	LYS	R	143	36.885	-5.425	-12.641	1.00	66.66	R	C
ATOM	1536	O	LYS	R	143	37.241	-4.354	-13.113	1.00	65.97	R	O
ATOM	1537	N	CYS	R	144	37.717	-6.477	-12.519	1.00	67.07	R	N
ATOM	1538	CA	CYS	R	144	39.090	-6.377	-12.994	1.00	68.28	R	C
ATOM	1539	C	CYS	R	144	39.334	-7.295	-14.192	1.00	68.24	R	C
ATOM	1540	O	CYS	R	144	38.754	-8.366	-14.315	1.00	68.16	R	O
ATOM	1541	CB	CYS	R	144	40.022	-6.762	-11.845	1.00	68.98	R	C
ATOM	1542	SG	CYS	R	144	39.869	-5.642	-10.436	1.00	71.30	R	S
ATOM	1543	N	SER	R	145	40.189	-6.811	-15.106	1.00	69.43	R	N
ATOM	1544	CA	SER	R	145	40.555	-7.578	-16.284	1.00	71.06	R	C
ATOM	1545	CB	SER	R	145	40.243	-6.718	-17.511	1.00	70.62	R	C
ATOM	1546	OG	SER	R	145	38.849	-6.438	-17.578	1.00	70.80	R	O
ATOM	1547	C	SER	R	145	42.055	-7.818	-16.286	1.00	73.04	R	C
ATOM	1548	O	SER	R	145	42.769	-7.484	-15.352	1.00	74.36	R	O
ATOM	1549	N	TRP	R	146	42.526	-8.426	-17.386	1.00	74.61	R	N
ATOM	1550	CA	TRP	R	146	43.959	-8.386	-17.558	1.00	76.46	R	C
ATOM	1551	CB	TRP	R	146	44.624	-8.758	-16.236	1.00	74.01	R	C
ATOM	1552	CG	TRP	R	146	44.418	-10.196	-15.951	1.00	72.34	R	C
ATOM	1553	CD2	TRP	R	146	43.481	-10.743	-14.999	1.00	70.76	R	C
ATOM	1554	CE2	TRP	R	146	43.658	-12.150	-14.994	1.00	69.26	R	C
ATOM	1555	CE3	TRP	R	146	42.532	-10.170	-14.162	1.00	69.78	R	C
ATOM	1556	CD1	TRP	R	146	45.120	-11.294	-16.505	1.00	71.24	R	C
ATOM	1557	NE1	TRP	R	146	44.718	-12.484	-15.960	1.00	69.89	R	N
ATOM	1558	CZ2	TRP	R	146	42.907	-12.940	-14.138	1.00	69.54	R	C
ATOM	1559	CZ3	TRP	R	146	41.777	-10.959	-13.310	1.00	70.52	R	C
ATOM	1560	CH2	TRP	R	146	41.967	-12.353	-13.296	1.00	70.22	R	C
ATOM	1561	C	TRP	R	146	44.364	-9.384	-18.607	1.00	78.90	R	C
ATOM	1562	O	TRP	R	146	43.596	-10.217	-19.071	1.00	78.80	R	O
ATOM	1563	N	LEU	R	147	45.628	-9.261	-19.008	1.00	81.83	R	N
ATOM	1564	CA	LEU	R	147	46.095	-10.155	-20.040	1.00	84.15	R	C
ATOM	1565	CB	LEU	R	147	46.536	-9.336	-21.253	1.00	84.22	R	C
ATOM	1566	CG	LEU	R	147	45.336	-8.822	-22.059	1.00	84.97	R	C
ATOM	1567	CD1	LEU	R	147	45.717	-7.748	-23.080	1.00	84.53	R	C
ATOM	1568	CD2	LEU	R	147	44.630	-9.929	-22.834	1.00	84.27	R	C
ATOM	1569	C	LEU	R	147	47.217	-11.057	-19.564	1.00	85.74	R	C
ATOM	1570	O	LEU	R	147	47.902	-10.801	-18.580	1.00	85.98	R	O
ATOM	1571	N	PRO	R	148	47.344	-12.163	-20.303	1.00	87.39	R	N
ATOM	1572	CD	PRO	R	148	46.558	-12.564	-21.455	1.00	87.86	R	C
ATOM	1573	CA	PRO	R	148	48.403	-13.171	-20.129	1.00	88.19	R	C
ATOM	1574	CB	PRO	R	148	47.965	-14.454	-20.828	1.00	88.40	R	C
ATOM	1575	CG	PRO	R	148	46.691	-14.155	-21.610	1.00	88.42	R	C
ATOM	1576	C	PRO	R	148	49.756	-12.659	-20.686	1.00	89.62	R	C
ATOM	1577	O	PRO	R	148	49.806	-11.662	-21.387	1.00	89.77	R	O
ATOM	1578	N	GLY	R	149	50.874	-13.358	-20.341	1.00	91.18	R	N
ATOM	1579	CA	GLY	R	149	52.145	-12.622	-20.211	1.00	92.51	R	C
ATOM	1580	C	GLY	R	149	53.242	-12.878	-21.246	1.00	93.62	R	C
ATOM	1581	O	GLY	R	149	54.234	-12.169	-21.354	1.00	94.74	R	O
ATOM	1582	N	ARG	R	150	53.062	-13.955	-22.026	1.00	93.01	R	N
ATOM	1583	CA	ARG	R	150	54.181	-14.608	-22.661	1.00	92.26	R	C

ATOM	1584	CB	ARG	R	150	54.955	-13.873	-23.754	1.00	91.41	R	C
ATOM	1585	C	ARG	R	150	54.122	-16.106	-22.658	1.00	91.84	R	C
ATOM	1586	O	ARG	R	150	53.431	-16.717	-23.454	1.00	92.36	R	O
ATOM	1587	N	THR	R	151	54.916	-16.690	-21.738	1.00	90.45	R	N
ATOM	1588	CA	THR	R	151	54.475	-17.936	-21.146	1.00	89.19	R	C
ATOM	1589	CB	THR	R	151	55.384	-18.215	-19.955	1.00	88.80	R	C
ATOM	1590	C	THR	R	151	53.030	-17.751	-20.676	1.00	87.94	R	C
ATOM	1591	O	THR	R	151	52.703	-17.915	-19.507	1.00	88.05	R	O
ATOM	1592	N	ASN	R	157	46.432	-21.051	-14.609	1.00	85.88	R	N
ATOM	1593	CA	ASN	R	157	45.112	-20.618	-14.145	1.00	84.20	R	C
ATOM	1594	CB	ASN	R	157	44.314	-21.852	-13.723	1.00	84.00	R	C
ATOM	1595	C	ASN	R	157	45.245	-19.634	-12.976	1.00	82.50	R	C
ATOM	1596	O	ASN	R	157	46.051	-19.808	-12.081	1.00	82.32	R	O
ATOM	1597	N	TYR	R	158	44.433	-18.554	-13.024	1.00	79.53	R	N
ATOM	1598	CA	TYR	R	158	44.676	-17.413	-12.133	1.00	77.43	R	C
ATOM	1599	CB	TYR	R	158	44.579	-16.126	-12.968	1.00	76.44	R	C
ATOM	1600	CG	TYR	R	158	45.402	-16.255	-14.214	1.00	75.20	R	C
ATOM	1601	CD1	TYR	R	158	44.764	-16.400	-15.442	1.00	74.38	R	C
ATOM	1602	CE1	TYR	R	158	45.492	-16.312	-16.622	1.00	74.67	R	C
ATOM	1603	CD2	TYR	R	158	46.783	-16.050	-14.174	1.00	75.41	R	C
ATOM	1604	CE2	TYR	R	158	47.512	-15.976	-15.356	1.00	75.52	R	C
ATOM	1605	CZ	TYR	R	158	46.869	-16.109	-16.571	1.00	75.14	R	C
ATOM	1606	OH	TYR	R	158	47.584	-16.043	-17.752	1.00	76.43	R	O
ATOM	1607	C	TYR	R	158	43.742	-17.356	-10.910	1.00	75.97	R	C
ATOM	1608	O	TYR	R	158	42.577	-17.732	-10.921	1.00	75.96	R	O
ATOM	1609	N	THR	R	159	44.406	-16.859	-9.850	1.00	74.64	R	N
ATOM	1610	CA	THR	R	159	43.628	-16.313	-8.746	1.00	73.18	R	C
ATOM	1611	CB	THR	R	159	43.872	-17.106	-7.471	1.00	73.25	R	C
ATOM	1612	OG1	THR	R	159	43.453	-18.448	-7.690	1.00	73.03	R	O
ATOM	1613	CG2	THR	R	159	43.035	-16.509	-6.329	1.00	72.72	R	C
ATOM	1614	C	THR	R	159	43.978	-14.858	-8.503	1.00	71.48	R	C
ATOM	1615	O	THR	R	159	45.137	-14.475	-8.413	1.00	71.07	R	O
ATOM	1616	N	LEU	R	160	42.912	-14.036	-8.456	1.00	69.18	R	N
ATOM	1617	CA	LEU	R	160	43.081	-12.640	-8.082	1.00	67.26	R	C
ATOM	1618	CB	LEU	R	160	42.093	-11.786	-8.887	1.00	66.01	R	C
ATOM	1619	CG	LEU	R	160	42.181	-10.300	-8.500	1.00	63.77	R	C
ATOM	1620	CD1	LEU	R	160	41.758	-9.348	-9.625	1.00	61.55	R	C
ATOM	1621	CD2	LEU	R	160	41.328	-9.945	-7.286	1.00	61.91	R	C
ATOM	1622	C	LEU	R	160	42.823	-12.446	-6.590	1.00	66.34	R	C
ATOM	1623	O	LEU	R	160	41.823	-12.896	-6.047	1.00	65.01	R	O
ATOM	1624	N	TYR	R	161	43.827	-11.837	-5.927	1.00	66.57	R	N
ATOM	1625	CA	TYR	R	161	43.678	-11.470	-4.522	1.00	66.28	R	C
ATOM	1626	CB	TYR	R	161	44.905	-11.973	-3.713	1.00	66.76	R	C
ATOM	1627	CG	TYR	R	161	45.181	-13.444	-3.882	1.00	68.38	R	C
ATOM	1628	CD1	TYR	R	161	46.049	-13.864	-4.886	1.00	68.35	R	C
ATOM	1629	CE1	TYR	R	161	46.379	-15.212	-5.022	1.00	69.74	R	C
ATOM	1630	CD2	TYR	R	161	44.679	-14.394	-2.979	1.00	69.17	R	C
ATOM	1631	CE2	TYR	R	161	45.000	-15.739	-3.120	1.00	69.18	R	C
ATOM	1632	CZ	TYR	R	161	45.829	-16.155	-4.154	1.00	69.89	R	C
ATOM	1633	OH	TYR	R	161	46.083	-17.501	-4.369	1.00	70.29	R	O
ATOM	1634	C	TYR	R	161	43.617	-9.948	-4.413	1.00	65.45	R	C
ATOM	1635	O	TYR	R	161	44.104	-9.205	-5.258	1.00	64.16	R	O
ATOM	1636	N	TYR	R	162	42.954	-9.480	-3.355	1.00	64.72	R	N
ATOM	1637	CA	TYR	R	162	42.865	-8.045	-3.159	1.00	66.48	R	C
ATOM	1638	CB	TYR	R	162	41.659	-7.510	-3.938	1.00	65.27	R	C
ATOM	1639	CG	TYR	R	162	40.390	-8.009	-3.338	1.00	63.11	R	C
ATOM	1640	CD1	TYR	R	162	39.795	-7.315	-2.288	1.00	61.94	R	C
ATOM	1641	CE1	TYR	R	162	38.587	-7.747	-1.761	1.00	61.74	R	C
ATOM	1642	CD2	TYR	R	162	39.766	-9.144	-3.854	1.00	62.34	R	C
ATOM	1643	CE2	TYR	R	162	38.564	-9.584	-3.321	1.00	60.23	R	C
ATOM	1644	CZ	TYR	R	162	37.979	-8.896	-2.274	1.00	60.10	R	C

ATOM	1645	OH	TYR	R	162	36.794	-9.345	-1.719	1.00	58.65	R	O
ATOM	1646	C	TYR	R	162	42.729	-7.701	-1.680	1.00	68.03	R	C
ATOM	1647	O	TYR	R	162	42.155	-8.431	-0.884	1.00	67.34	R	O
ATOM	1648	N	TRP	R	163	43.337	-6.564	-1.311	1.00	69.63	R	N
ATOM	1649	CA	TRP	R	163	43.260	-6.139	0.061	1.00	71.19	R	C
ATOM	1650	CB	TRP	R	163	44.636	-6.324	0.712	1.00	71.77	R	C
ATOM	1651	CG	TRP	R	163	44.601	-5.849	2.122	1.00	71.55	R	C
ATOM	1652	CD2	TRP	R	163	45.077	-4.565	2.603	1.00	71.76	R	C
ATOM	1653	CE2	TRP	R	163	44.873	-4.558	4.011	1.00	71.73	R	C
ATOM	1654	CE3	TRP	R	163	45.624	-3.452	1.985	1.00	72.15	R	C
ATOM	1655	CD1	TRP	R	163	44.145	-6.563	3.247	1.00	71.65	R	C
ATOM	1656	NE1	TRP	R	163	44.281	-5.856	4.401	1.00	72.21	R	N
ATOM	1657	CZ2	TRP	R	163	45.232	-3.438	4.748	1.00	72.72	R	C
ATOM	1658	CZ3	TRP	R	163	45.982	-2.334	2.723	1.00	72.41	R	C
ATOM	1659	CH2	TRP	R	163	45.778	-2.329	4.115	1.00	72.89	R	C
ATOM	1660	C	TRP	R	163	42.820	-4.677	0.156	1.00	72.31	R	C
ATOM	1661	O	TRP	R	163	43.177	-3.825	-0.642	1.00	72.04	R	O
ATOM	1662	N	HIS	R	164	41.961	-4.446	1.146	1.00	73.99	R	N
ATOM	1663	CA	HIS	R	164	41.637	-3.058	1.506	1.00	76.09	R	C
ATOM	1664	CB	HIS	R	164	40.202	-2.794	1.057	1.00	77.41	R	C
ATOM	1665	CG	HIS	R	164	39.841	-1.359	1.320	1.00	78.45	R	C
ATOM	1666	CD2	HIS	R	164	40.543	-0.215	0.941	1.00	78.66	R	C
ATOM	1667	ND1	HIS	R	164	38.685	-0.978	1.921	1.00	78.84	R	N
ATOM	1668	CE1	HIS	R	164	38.691	0.369	1.887	1.00	77.98	R	C
ATOM	1669	NE2	HIS	R	164	39.792	0.853	1.305	1.00	78.68	R	N
ATOM	1670	C	HIS	R	164	41.748	-2.882	3.018	1.00	76.77	R	C
ATOM	1671	O	HIS	R	164	41.503	-3.805	3.773	1.00	77.29	R	O
ATOM	1672	N	ARG	R	165	42.179	-1.699	3.483	1.00	77.80	R	N
ATOM	1673	CA	ARG	R	165	42.376	-1.632	4.928	1.00	79.12	R	C
ATOM	1674	CB	ARG	R	165	42.925	-0.263	5.317	1.00	77.22	R	C
ATOM	1675	C	ARG	R	165	41.073	-1.920	5.680	1.00	80.09	R	C
ATOM	1676	O	ARG	R	165	41.038	-2.137	6.877	1.00	80.16	R	O
ATOM	1677	N	SER	R	166	39.956	-1.909	4.929	1.00	81.21	R	N
ATOM	1678	CA	SER	R	166	38.685	-2.195	5.589	1.00	82.09	R	C
ATOM	1679	CB	SER	R	166	37.532	-1.790	4.665	1.00	82.11	R	C
ATOM	1680	OG	SER	R	166	36.554	-1.082	5.425	1.00	83.17	R	O
ATOM	1681	C	SER	R	166	38.567	-3.676	5.946	1.00	83.27	R	C
ATOM	1682	O	SER	R	166	37.607	-4.135	6.554	1.00	83.85	R	O
ATOM	1683	N	LEU	R	167	39.580	-4.444	5.517	1.00	83.51	R	N
ATOM	1684	CA	LEU	R	167	39.570	-5.871	5.804	1.00	83.71	R	C
ATOM	1685	CB	LEU	R	167	39.571	-6.633	4.480	1.00	84.23	R	C
ATOM	1686	CG	LEU	R	167	38.694	-5.962	3.422	1.00	84.47	R	C
ATOM	1687	CD1	LEU	R	167	39.283	-6.081	2.015	1.00	84.80	R	C
ATOM	1688	CD2	LEU	R	167	37.288	-6.558	3.353	1.00	85.44	R	C
ATOM	1689	C	LEU	R	167	40.770	-6.292	6.650	1.00	84.08	R	C
ATOM	1690	O	LEU	R	167	41.704	-5.535	6.885	1.00	84.12	R	O
ATOM	1691	N	GLU	R	168	40.699	-7.540	7.146	1.00	84.44	R	N
ATOM	1692	CA	GLU	R	168	41.780	-8.060	7.970	1.00	84.36	R	C
ATOM	1693	CB	GLU	R	168	41.167	-9.007	9.000	1.00	83.89	R	C
ATOM	1694	C	GLU	R	168	42.805	-8.814	7.124	1.00	84.52	R	C
ATOM	1695	O	GLU	R	168	44.001	-8.559	7.171	1.00	84.96	R	O
ATOM	1696	N	LYS	R	169	42.272	-9.807	6.400	1.00	84.09	R	N
ATOM	1697	CA	LYS	R	169	43.134	-10.648	5.594	1.00	83.45	R	C
ATOM	1698	CB	LYS	R	169	42.898	-12.101	6.008	1.00	83.34	R	C
ATOM	1699	C	LYS	R	169	42.830	-10.475	4.108	1.00	82.71	R	C
ATOM	1700	O	LYS	R	169	41.740	-10.102	3.691	1.00	83.06	R	O
ATOM	1701	N	ILE	R	170	43.881	-10.711	3.315	1.00	81.31	R	N
ATOM	1702	CA	ILE	R	170	43.701	-10.725	1.882	1.00	80.46	R	C
ATOM	1703	CB	ILE	R	170	44.982	-11.284	1.273	1.00	79.74	R	C
ATOM	1704	CG2	ILE	R	170	44.812	-11.438	-0.252	1.00	79.29	R	C
ATOM	1705	CG1	ILE	R	170	46.135	-10.307	1.515	1.00	79.81	R	C

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ATOM  1706  CD1 ILE R 170      47.446 -11.014   1.859  1.00 78.12      R    C
ATOM  1707  C   ILE R 170      42.504 -11.587   1.506  1.00 80.50      R    C
ATOM  1708  O   ILE R 170      42.231 -12.629   2.089  1.00 80.85      R    O
ATOM  1709  N   HIS R 171      41.736 -11.076   0.529  1.00 80.29      R    N
ATOM  1710  CA  HIS R 171      40.561 -11.808   0.038  1.00 80.32      R    C
ATOM  1711  CB  HIS R 171      39.373 -10.829  -0.014  1.00 80.10      R    C
ATOM  1712  CG  HIS R 171      38.684 -10.796   1.332  1.00 80.18      R    C
ATOM  1713  CD2 HIS R 171      37.447 -11.354   1.702  1.00 80.29      R    C
ATOM  1714  ND1 HIS R 171      39.175 -10.114   2.395  1.00 81.10      R    N
ATOM  1715  CE1 HIS R 171      38.260 -10.249   3.376  1.00 80.58      R    C
ATOM  1716  NE2 HIS R 171      37.215 -10.986   2.991  1.00 80.44      R    N
ATOM  1717  C   HIS R 171      40.793 -12.475  -1.345  1.00 81.25      R    C
ATOM  1718  O   HIS R 171      41.752 -12.194  -2.063  1.00 80.73      R    O
ATOM  1719  N   GLN R 172      39.891 -13.443  -1.669  1.00 82.69      R    N
ATOM  1720  CA  GLN R 172      39.959 -14.228  -2.915  1.00 84.35      R    C
ATOM  1721  CB  GLN R 172      39.799 -15.694  -2.481  1.00 85.66      R    C
ATOM  1722  CG  GLN R 172      41.095 -16.484  -2.365  1.00 86.79      R    C
ATOM  1723  CD  GLN R 172      40.758 -17.862  -1.831  1.00 87.26      R    C
ATOM  1724  OE1 GLN R 172      39.851 -18.545  -2.282  1.00 86.59      R    O
ATOM  1725  NE2 GLN R 172      41.512 -18.244  -0.781  1.00 86.84      R    N
ATOM  1726  C   GLN R 172      38.770 -13.889  -3.826  1.00 85.75      R    C
ATOM  1727  O   GLN R 172      37.613 -14.003  -3.434  1.00 86.57      R    O
ATOM  1728  N   CYS R 173      39.045 -13.461  -5.085  1.00 87.06      R    N
ATOM  1729  CA  CYS R 173      37.947 -13.228  -6.011  1.00 88.58      R    C
ATOM  1730  C   CYS R 173      37.521 -14.514  -6.734  1.00 89.45      R    C
ATOM  1731  O   CYS R 173      38.331 -15.375  -7.055  1.00 89.20      R    O
ATOM  1732  CB  CYS R 173      38.413 -12.180  -7.026  1.00 88.12      R    C
ATOM  1733  SG  CYS R 173      37.186 -11.883  -8.320  1.00 88.29      R    S
ATOM  1734  N   GLU R 174      36.183 -14.625  -6.935  1.00 91.09      R    N
ATOM  1735  CA  GLU R 174      35.649 -15.956  -7.092  1.00 93.06      R    C
ATOM  1736  CB  GLU R 174      35.515 -16.476  -5.655  1.00 92.78      R    C
ATOM  1737  C   GLU R 174      34.294 -16.121  -7.778  1.00 94.86      R    C
ATOM  1738  O   GLU R 174      33.315 -16.337  -7.070  1.00 95.21      R    O
ATOM  1739  N   ASN R 175      34.122 -15.983  -9.167  1.00 96.51      R    N
ATOM  1740  CA  ASN R 175      34.649 -15.056 -10.196  1.00 98.10      R    C
ATOM  1741  CB  ASN R 175      34.102 -13.645 -10.052  1.00 97.69      R    C
ATOM  1742  CG  ASN R 175      32.619 -13.789  -9.833  1.00 98.11      R    C
ATOM  1743  OD1 ASN R 175      31.941 -14.534 -10.541  1.00 98.85      R    O
ATOM  1744  ND2 ASN R 175      32.123 -13.187  -8.731  1.00 97.61      R    N
ATOM  1745  C   ASN R 175      34.794 -15.623 -11.650  1.00 98.91      R    C
ATOM  1746  O   ASN R 175      33.903 -16.274 -12.194  1.00 99.60      R    O
ATOM  1747  N   ILE R 176      35.935 -15.304 -12.313  1.00 99.69      R    N
ATOM  1748  CA  ILE R 176      36.241 -16.076 -13.533  1.00100.40      R    C
ATOM  1749  CB  ILE R 176      36.442 -17.553 -13.218  1.00101.08      R    C
ATOM  1750  CG2 ILE R 176      37.888 -17.994 -13.527  1.00101.79      R    C
ATOM  1751  CG1 ILE R 176      36.217 -17.776 -11.719  1.00100.88      R    C
ATOM  1752  CD1 ILE R 176      35.835 -19.220 -11.403  1.00101.03      R    C
ATOM  1753  C   ILE R 176      37.282 -15.435 -14.470  1.00100.57      R    C
ATOM  1754  O   ILE R 176      38.471 -15.481 -14.194  1.00100.09      R    O
ATOM  1755  N   PHE R 177      36.851 -14.872 -15.645  1.00100.98      R    N
ATOM  1756  CA  PHE R 177      35.533 -15.078 -16.267  1.00101.31      R    C
ATOM  1757  CB  PHE R 177      34.526 -14.079 -15.684  1.00101.94      R    C
ATOM  1758  CG  PHE R 177      34.896 -12.665 -16.040  1.00103.06      R    C
ATOM  1759  CD1 PHE R 177      34.852 -12.249 -17.367  1.00103.48      R    C
ATOM  1760  CD2 PHE R 177      35.120 -11.739 -15.031  1.00103.36      R    C
ATOM  1761  CE1 PHE R 177      35.012 -10.906 -17.678  1.00102.99      R    C
ATOM  1762  CE2 PHE R 177      35.275 -10.393 -15.350  1.00103.34      R    C
ATOM  1763  CZ  PHE R 177      35.217  -9.969 -16.673  1.00103.07      R    C
ATOM  1764  C   PHE R 177      35.636 -14.881 -17.792  1.00101.05      R    C
ATOM  1765  O   PHE R 177      34.670 -14.993 -18.554  1.00100.84      R    O
ATOM  1766  N   ARG R 178      36.857 -14.522 -18.227  1.00101.03      R    N
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	ATOM	1767	CA	ARG	R	178	37.185	-14.362	-19.648	1.00101.14	R	C
	ATOM	1768	CB	ARG	R	178	37.436	-15.735	-20.265	1.00101.04	R	C
	ATOM	1769	CG	ARG	R	178	38.351	-15.629	-21.483	1.00101.47	R	C
	ATOM	1770	CD	ARG	R	178	39.345	-16.797	-21.562	1.00102.67	R	C
5	ATOM	1771	NE	ARG	R	178	38.683	-17.951	-22.159	1.00104.10	R	N
	ATOM	1772	CZ	ARG	R	178	38.991	-18.243	-23.433	1.00104.33	R	C
	ATOM	1773	NH1	ARG	R	178	40.221	-18.048	-23.871	1.00104.55	R	N
	ATOM	1774	NH2	ARG	R	178	37.999	-18.428	-24.310	1.00104.03	R	N
	ATOM	1775	C	ARG	R	178	36.151	-13.580	-20.471	1.00101.18	R	C
10	ATOM	1776	O	ARG	R	178	34.970	-13.903	-20.532	1.00101.57	R	O
	ATOM	1777	N	GLU	R	179	36.638	-12.501	-21.117	1.00100.71	R	N
	ATOM	1778	CA	GLU	R	179	35.773	-11.734	-22.012	1.00100.14	R	C
	ATOM	1779	CB	GLU	R	179	35.405	-10.413	-21.330	1.00100.45	R	C
	ATOM	1780	CG	GLU	R	179	33.999	-10.453	-20.727	1.00100.59	R	C
15	ATOM	1781	CD	GLU	R	179	33.678	-9.128	-20.073	1.00100.07	R	C
	ATOM	1782	OE1	GLU	R	179	34.583	-8.325	-19.891	1.00100.09	R	O
	ATOM	1783	OE2	GLU	R	179	32.512	-8.909	-19.746	1.00 99.84	R	O
	ATOM	1784	C	GLU	R	179	36.455	-11.453	-23.353	1.00 99.72	R	C
	ATOM	1785	O	GLU	R	179	36.833	-10.331	-23.662	1.00 99.74	R	O
20	ATOM	1786	N	GLY	R	180	36.592	-12.538	-24.139	1.00 98.92	R	N
	ATOM	1787	CA	GLY	R	180	37.421	-12.461	-25.343	1.00 97.33	R	C
	ATOM	1788	C	GLY	R	180	38.812	-13.017	-25.044	1.00 96.44	R	C
	ATOM	1789	O	GLY	R	180	38.987	-14.171	-24.678	1.00 96.81	R	O
	ATOM	1790	N	GLN	R	181	39.818	-12.151	-25.221	1.00 95.64	R	N
25	ATOM	1791	CA	GLN	R	181	41.190	-12.569	-24.929	1.00 94.60	R	C
	ATOM	1792	CB	GLN	R	181	42.135	-11.897	-25.932	1.00 93.48	R	C
	ATOM	1793	CG	GLN	R	181	43.453	-12.656	-26.116	1.00 91.79	R	C
	ATOM	1794	CD	GLN	R	181	44.435	-11.767	-26.849	1.00 91.05	R	C
	ATOM	1795	OE1	GLN	R	181	45.600	-12.075	-27.043	1.00 90.47	R	O
30	ATOM	1796	NE2	GLN	R	181	43.907	-10.593	-27.251	1.00 91.76	R	N
	ATOM	1797	C	GLN	R	181	41.594	-12.197	-23.501	1.00 94.47	R	C
	ATOM	1798	O	GLN	R	181	42.564	-12.693	-22.947	1.00 94.04	R	O
	ATOM	1799	N	TYR	R	182	40.835	-11.252	-22.922	1.00 93.91	R	N
	ATOM	1800	CA	TYR	R	182	41.114	-10.850	-21.550	1.00 92.81	R	C
35	ATOM	1801	CB	TYR	R	182	40.414	-9.515	-21.292	1.00 93.02	R	C
	ATOM	1802	CG	TYR	R	182	40.892	-8.460	-22.224	1.00 92.82	R	C
	ATOM	1803	CD1	TYR	R	182	39.960	-7.756	-22.982	1.00 92.48	R	C
	ATOM	1804	CE1	TYR	R	182	40.309	-6.563	-23.595	1.00 92.44	R	C
	ATOM	1805	CD2	TYR	R	182	42.199	-7.976	-22.127	1.00 93.13	R	C
40	ATOM	1806	CE2	TYR	R	182	42.553	-6.787	-22.749	1.00 92.71	R	C
	ATOM	1807	CZ	TYR	R	182	41.613	-6.079	-23.476	1.00 92.01	R	C
	ATOM	1808	OH	TYR	R	182	41.935	-4.857	-24.029	1.00 91.15	R	O
	ATOM	1809	C	TYR	R	182	40.586	-11.879	-20.547	1.00 92.26	R	C
	ATOM	1810	O	TYR	R	182	39.683	-12.660	-20.826	1.00 92.36	R	O
45	ATOM	1811	N	PHE	R	183	41.217	-11.890	-19.356	1.00 91.37	R	N
	ATOM	1812	CA	PHE	R	183	40.649	-12.619	-18.222	1.00 90.25	R	C
	ATOM	1813	CB	PHE	R	183	41.700	-13.609	-17.704	1.00 90.91	R	C
	ATOM	1814	CG	PHE	R	183	41.817	-14.796	-18.620	1.00 91.41	R	C
	ATOM	1815	CD1	PHE	R	183	42.561	-14.689	-19.789	1.00 91.78	R	C
50	ATOM	1816	CD2	PHE	R	183	41.313	-16.027	-18.226	1.00 91.12	R	C
	ATOM	1817	CE1	PHE	R	183	42.812	-15.822	-20.556	1.00 91.36	R	C
	ATOM	1818	CE2	PHE	R	183	41.570	-17.158	-18.999	1.00 91.13	R	C
	ATOM	1819	CZ	PHE	R	183	42.321	-17.061	-20.164	1.00 91.26	R	C
	ATOM	1820	C	PHE	R	183	40.282	-11.627	-17.109	1.00 89.14	R	C
55	ATOM	1821	O	PHE	R	183	40.918	-10.596	-16.931	1.00 88.98	R	O
	ATOM	1822	N	GLY	R	184	39.199	-11.934	-16.373	1.00 87.72	R	N
	ATOM	1823	CA	GLY	R	184	38.721	-10.948	-15.388	1.00 86.34	R	C
	ATOM	1824	C	GLY	R	184	38.097	-11.592	-14.131	1.00 85.86	R	C
	ATOM	1825	O	GLY	R	184	38.003	-12.806	-14.001	1.00 86.34	R	O
60	ATOM	1826	N	CYS	R	185	37.690	-10.718	-13.175	1.00 85.14	R	N
	ATOM	1827	CA	CYS	R	185	37.169	-11.211	-11.888	1.00 83.61	R	C

	ATOM	1828	C	CYS	R	185	36.513	-10.091	-11.058	1.00	81.56	R	C
	ATOM	1829	O	CYS	R	185	37.072	-9.024	-10.855	1.00	81.30	R	O
	ATOM	1830	CB	CYS	R	185	38.351	-11.784	-11.104	1.00	85.14	R	C
	ATOM	1831	SG	CYS	R	185	37.842	-12.999	-9.871	1.00	89.00	R	S
5	ATOM	1832	N	SER	R	186	35.267	-10.349	-10.589	1.00	78.90	R	N
	ATOM	1833	CA	SER	R	186	34.553	-9.318	-9.830	1.00	76.87	R	C
	ATOM	1834	CB	SER	R	186	33.162	-9.134	-10.442	1.00	75.93	R	C
	ATOM	1835	OG	SER	R	186	33.288	-8.740	-11.808	1.00	75.39	R	O
	ATOM	1836	C	SER	R	186	34.414	-9.655	-8.338	1.00	76.01	R	C
10	ATOM	1837	O	SER	R	186	34.220	-10.797	-7.939	1.00	77.16	R	O
	ATOM	1838	N	PHE	R	187	34.558	-8.610	-7.499	1.00	74.92	R	N
	ATOM	1839	CA	PHE	R	187	34.277	-8.787	-6.077	1.00	74.79	R	C
	ATOM	1840	CB	PHE	R	187	35.596	-9.010	-5.328	1.00	73.25	R	C
	ATOM	1841	CG	PHE	R	187	36.588	-7.932	-5.661	1.00	72.03	R	C
15	ATOM	1842	CD1	PHE	R	187	37.503	-8.143	-6.686	1.00	70.77	R	C
	ATOM	1843	CD2	PHE	R	187	36.720	-6.833	-4.825	1.00	71.76	R	C
	ATOM	1844	CE1	PHE	R	187	38.562	-7.262	-6.861	1.00	70.31	R	C
	ATOM	1845	CE2	PHE	R	187	37.785	-5.952	-5.009	1.00	70.79	R	C
	ATOM	1846	CZ	PHE	R	187	38.709	-6.164	-6.023	1.00	70.25	R	C
20	ATOM	1847	C	PHE	R	187	33.533	-7.590	-5.486	1.00	75.47	R	C
	ATOM	1848	O	PHE	R	187	33.632	-6.461	-5.948	1.00	75.75	R	O
	ATOM	1849	N	ASP	R	188	32.732	-7.881	-4.446	1.00	76.38	R	N
	ATOM	1850	CA	ASP	R	188	31.943	-6.820	-3.832	1.00	77.29	R	C
	ATOM	1851	CB	ASP	R	188	30.992	-7.454	-2.819	1.00	77.97	R	C
25	ATOM	1852	CG	ASP	R	188	29.933	-8.252	-3.559	1.00	79.71	R	C
	ATOM	1853	OD1	ASP	R	188	29.265	-9.057	-2.910	1.00	79.83	R	O
	ATOM	1854	OD2	ASP	R	188	29.792	-8.069	-4.765	1.00	80.40	R	O
	ATOM	1855	C	ASP	R	188	32.812	-5.775	-3.137	1.00	78.25	R	C
	ATOM	1856	O	ASP	R	188	33.707	-6.088	-2.352	1.00	77.98	R	O
30	ATOM	1857	N	LEU	R	189	32.531	-4.502	-3.479	1.00	79.81	R	N
	ATOM	1858	CA	LEU	R	189	33.321	-3.580	-2.691	1.00	81.28	R	C
	ATOM	1859	CB	LEU	R	189	34.356	-2.914	-3.632	1.00	79.95	R	C
	ATOM	1860	CG	LEU	R	189	35.761	-2.840	-3.015	1.00	78.56	R	C
	ATOM	1861	CD1	LEU	R	189	36.648	-1.751	-3.654	1.00	77.86	R	C
35	ATOM	1862	CD2	LEU	R	189	35.742	-2.541	-1.516	1.00	78.01	R	C
	ATOM	1863	C	LEU	R	189	32.391	-2.574	-2.088	1.00	83.89	R	C
	ATOM	1864	O	LEU	R	189	32.422	-1.413	-2.462	1.00	85.14	R	O
	ATOM	1865	N	THR	R	190	31.453	-3.061	-1.220	1.00	85.99	R	N
	ATOM	1866	CA	THR	R	190	30.489	-2.291	-0.756	1.00	89.32	R	C
40	ATOM	1867	CB	THR	R	190	29.056	-2.733	-0.767	1.00	90.54	R	C
	ATOM	1868	OG1	THR	R	190	28.694	-3.084	-2.088	1.00	92.85	R	O
	ATOM	1869	CG2	THR	R	190	28.164	-1.538	-0.343	1.00	90.98	R	C
	ATOM	1870	C	THR	R	190	30.843	-1.908	0.579	1.00	90.52	R	C
	ATOM	1871	O	THR	R	190	31.437	-2.489	1.468	1.00	89.93	R	O
45	ATOM	1872	N	LYS	R	191	30.407	-0.782	0.535	1.00	91.79	R	N
	ATOM	1873	CA	LYS	R	191	30.894	0.095	1.314	1.00	92.71	R	C
	ATOM	1874	CB	LYS	R	191	32.426	-0.031	1.665	1.00	92.75	R	C
	ATOM	1875	CG	LYS	R	191	33.388	-0.275	0.516	1.00	93.39	R	C
	ATOM	1876	CD	LYS	R	191	34.855	-0.386	1.011	1.00	94.00	R	C
50	ATOM	1877	CE	LYS	R	191	34.968	-0.069	2.504	1.00	94.65	R	C
	ATOM	1878	NZ	LYS	R	191	36.364	0.035	2.909	1.00	95.24	R	N
	ATOM	1879	C	LYS	R	191	30.462	1.359	0.829	1.00	93.06	R	C
	ATOM	1880	O	LYS	R	191	30.062	1.604	-0.322	1.00	94.38	R	O
	ATOM	1881	N	VAL	R	192	30.297	1.991	1.873	1.00	93.44	R	N
55	ATOM	1882	CA	VAL	R	192	31.280	2.942	2.087	1.00	93.53	R	C
	ATOM	1883	CB	VAL	R	192	31.435	3.571	0.713	1.00	93.72	R	C
	ATOM	1884	CG1	VAL	R	192	30.322	4.534	0.286	1.00	92.98	R	C
	ATOM	1885	CG2	VAL	R	192	32.731	4.246	0.833	1.00	93.28	R	C
	ATOM	1886	C	VAL	R	192	30.689	3.764	3.176	1.00	93.63	R	C
60	ATOM	1887	O	VAL	R	192	29.651	3.300	3.700	1.00	93.63	R	O
	ATOM	1888	N	SER	R	195	34.830	5.067	5.044	1.00	93.32	R	N

	ATOM	1889	CA	SER	R	195	35.900	5.619	5.890	1.00	93.73	R C
	ATOM	1890	CB	SER	R	195	35.430	6.367	7.141	1.00	92.62	R C
	ATOM	1891	C	SER	R	195	37.171	6.115	5.185	1.00	92.89	R C
	ATOM	1892	O	SER	R	195	37.818	7.054	5.590	1.00	92.98	R O
5	ATOM	1893	N	SER	R	196	37.582	5.349	4.160	1.00	92.61	R N
	ATOM	1894	CA	SER	R	196	38.282	5.902	3.006	1.00	92.21	R C
	ATOM	1895	CB	SER	R	196	39.563	6.681	3.449	1.00	92.18	R C
	ATOM	1896	C	SER	R	196	38.603	4.704	2.105	1.00	92.05	R C
	ATOM	1897	O	SER	R	196	38.832	3.608	2.597	1.00	91.91	R O
10	ATOM	1898	N	PHE	R	197	38.653	4.865	0.787	1.00	91.69	R N
	ATOM	1899	CA	PHE	R	197	39.379	6.028	0.271	1.00	89.94	R C
	ATOM	1900	CB	PHE	R	197	38.673	6.751	-0.864	1.00	89.28	R C
	ATOM	1901	C	PHE	R	197	40.855	5.709	0.058	1.00	89.62	R C
	ATOM	1902	O	PHE	R	197	41.507	6.163	-0.868	1.00	89.86	R O
15	ATOM	1903	N	PHE	R	198	41.368	4.919	1.039	1.00	88.15	R N
	ATOM	1904	CA	PHE	R	198	42.553	4.082	0.851	1.00	87.68	R C
	ATOM	1905	CB	PHE	R	198	42.844	3.415	2.196	1.00	88.99	R C
	ATOM	1906	CG	PHE	R	198	42.938	4.418	3.273	1.00	90.06	R C
	ATOM	1907	CD1	PHE	R	198	42.004	4.407	4.300	1.00	90.80	R C
20	ATOM	1908	CD2	PHE	R	198	44.030	5.260	3.324	1.00	90.39	R C
	ATOM	1909	CE1	PHE	R	198	42.162	5.265	5.381	1.00	91.26	R C
	ATOM	1910	CE2	PHE	R	198	44.185	6.111	4.405	1.00	90.95	R C
	ATOM	1911	CZ	PHE	R	198	43.260	6.120	5.439	1.00	91.49	R C
	ATOM	1912	C	PHE	R	198	42.231	2.909	-0.085	1.00	86.57	R C
25	ATOM	1913	O	PHE	R	198	41.270	2.156	0.109	1.00	86.67	R O
	ATOM	1914	N	GLU	R	199	43.093	2.726	-1.119	1.00	84.73	R N
	ATOM	1915	CA	GLU	R	199	42.683	1.886	-2.249	1.00	82.61	R C
	ATOM	1916	CB	GLU	R	199	43.575	2.234	-3.415	1.00	83.35	R C
	ATOM	1917	CG	GLU	R	199	43.829	3.732	-3.497	1.00	85.78	R C
30	ATOM	1918	CD	GLU	R	199	45.319	3.957	-3.496	1.00	88.88	R C
	ATOM	1919	OE1	GLU	R	199	46.028	3.143	-2.922	1.00	91.39	R O
	ATOM	1920	OE2	GLU	R	199	45.762	4.943	-4.082	1.00	88.27	R O
	ATOM	1921	C	GLU	R	199	42.773	0.369	-1.990	1.00	79.66	R C
	ATOM	1922	O	GLU	R	199	43.549	-0.104	-1.171	1.00	80.10	R O
35	ATOM	1923	N	GLN	R	200	41.885	-0.402	-2.688	1.00	77.56	R N
	ATOM	1924	CA	GLN	R	200	42.204	-1.807	-2.879	1.00	75.22	R C
	ATOM	1925	CB	GLN	R	200	41.174	-2.437	-3.820	1.00	74.17	R C
	ATOM	1926	C	GLN	R	200	43.612	-1.900	-3.458	1.00	73.89	R C
	ATOM	1927	O	GLN	R	200	43.967	-1.288	-4.445	1.00	73.99	R O
40	ATOM	1928	N	HIS	R	201	44.285	-2.810	-2.734	1.00	72.01	R N
	ATOM	1929	CA	HIS	R	201	45.391	-3.514	-3.381	1.00	69.70	R C
	ATOM	1930	CB	HIS	R	201	46.851	-3.159	-3.012	1.00	72.07	R C
	ATOM	1931	CG	HIS	R	201	47.274	-3.528	-1.597	1.00	74.38	R C
	ATOM	1932	CD2	HIS	R	201	46.774	-2.989	-0.388	1.00	75.58	R C
45	ATOM	1933	ND1	HIS	R	201	48.592	-3.870	-1.379	1.00	75.68	R N
	ATOM	1934	CE1	HIS	R	201	48.907	-3.380	-0.174	1.00	75.89	R C
	ATOM	1935	NE2	HIS	R	201	47.848	-2.827	0.437	1.00	76.65	R N
	ATOM	1936	C	HIS	R	201	45.003	-4.779	-4.170	1.00	67.12	R C
	ATOM	1937	O	HIS	R	201	44.002	-5.417	-3.872	1.00	65.87	R O
50	ATOM	1938	N	SER	R	202	45.751	-5.050	-5.270	1.00	65.76	R N
	ATOM	1939	CA	SER	R	202	45.327	-6.188	-6.091	1.00	65.49	R C
	ATOM	1940	CB	SER	R	202	44.495	-5.649	-7.263	1.00	65.59	R C
	ATOM	1941	OG	SER	R	202	43.098	-5.779	-6.969	1.00	66.07	R O
	ATOM	1942	C	SER	R	202	46.535	-6.973	-6.619	1.00	65.89	R C
55	ATOM	1943	O	SER	R	202	47.599	-6.431	-6.871	1.00	64.15	R O
	ATOM	1944	N	GLN	R	203	46.327	-8.302	-6.744	1.00	66.75	R N
	ATOM	1945	CA	GLN	R	203	47.399	-9.168	-7.251	1.00	67.38	R C
	ATOM	1946	CB	GLN	R	203	48.204	-9.679	-6.053	1.00	66.69	R C
	ATOM	1947	C	GLN	R	203	46.855	-10.371	-8.053	1.00	68.36	R C
60	ATOM	1948	O	GLN	R	203	45.854	-10.977	-7.702	1.00	66.91	R O
	ATOM	1949	N	ILE	R	204	47.509	-10.732	-9.173	1.00	70.11	R N

	ATOM	1950	CA	ILE	R	204	47.017	-11.891	-9.892	1.00	72.85	R C
	ATOM	1951	CB	ILE	R	204	46.510	-11.420	-11.254	1.00	71.76	R C
	ATOM	1952	C	ILE	R	204	48.130	-12.914	-10.099	1.00	74.05	R C
	ATOM	1953	O	ILE	R	204	49.095	-12.693	-10.811	1.00	73.69	R O
5	ATOM	1954	N	MET	R	205	47.999	-14.052	-9.402	1.00	75.96	R N
	ATOM	1955	CA	MET	R	205	48.967	-15.105	-9.673	1.00	78.62	R C
	ATOM	1956	CB	MET	R	205	49.965	-15.225	-8.509	1.00	79.44	R C
	ATOM	1957	CG	MET	R	205	49.402	-15.843	-7.222	1.00	81.81	R C
	ATOM	1958	SD	MET	R	205	50.703	-16.108	-6.007	1.00	82.92	R S
10	ATOM	1959	CE	MET	R	205	49.674	-16.308	-4.546	1.00	82.58	R C
	ATOM	1960	C	MET	R	205	48.319	-16.438	-10.013	1.00	79.83	R C
	ATOM	1961	O	MET	R	205	47.111	-16.605	-10.058	1.00	79.06	R O
	ATOM	1962	N	VAL	R	206	49.208	-17.383	-10.328	1.00	81.92	R N
	ATOM	1963	CA	VAL	R	206	48.799	-18.755	-10.495	1.00	84.18	R C
15	ATOM	1964	CB	VAL	R	206	49.721	-19.384	-11.537	1.00	84.11	R C
	ATOM	1965	CG1	VAL	R	206	49.508	-18.739	-12.903	1.00	84.53	R C
	ATOM	1966	CG2	VAL	R	206	51.157	-19.192	-11.105	1.00	84.63	R C
	ATOM	1967	C	VAL	R	206	48.967	-19.544	-9.205	1.00	85.81	R C
	ATOM	1968	O	VAL	R	206	49.967	-19.462	-8.501	1.00	85.71	R O
20	ATOM	1969	N	LYS	R	207	47.908	-20.307	-8.873	1.00	87.72	R N
	ATOM	1970	CA	LYS	R	207	48.237	-21.691	-8.645	1.00	89.82	R C
	ATOM	1971	CB	LYS	R	207	46.928	-22.445	-8.381	1.00	88.83	R C
	ATOM	1972	CG	LYS	R	207	45.916	-21.599	-7.591	1.00	87.18	R C
	ATOM	1973	CD	LYS	R	207	44.806	-21.024	-8.473	1.00	84.32	R C
25	ATOM	1974	CE	LYS	R	207	43.626	-21.989	-8.659	1.00	83.21	R C
	ATOM	1975	NZ	LYS	R	207	42.370	-21.243	-8.795	1.00	81.54	R N
	ATOM	1976	C	LYS	R	207	48.838	-22.108	-9.996	1.00	91.87	R C
	ATOM	1977	O	LYS	R	207	48.713	-21.364	-10.971	1.00	92.75	R O
	ATOM	1978	N	ASP	R	208	49.540	-23.245	-10.062	1.00	93.36	R N
30	ATOM	1979	CA	ASP	R	208	49.966	-24.006	-8.913	1.00	94.52	R C
	ATOM	1980	CB	ASP	R	208	49.743	-25.487	-9.287	1.00	95.14	R C
	ATOM	1981	CG	ASP	R	208	50.314	-26.476	-8.267	1.00	94.52	R C
	ATOM	1982	OD1	ASP	R	208	50.551	-26.079	-7.124	1.00	95.08	R O
	ATOM	1983	OD2	ASP	R	208	50.425	-27.653	-8.606	1.00	94.46	R O
35	ATOM	1984	C	ASP	R	208	51.439	-23.684	-8.693	1.00	95.30	R C
	ATOM	1985	O	ASP	R	208	52.313	-24.168	-9.392	1.00	95.25	R O
	ATOM	1986	N	ASN	R	209	51.688	-22.736	-7.775	1.00	95.46	R N
	ATOM	1987	CA	ASN	R	209	53.074	-22.593	-7.285	1.00	95.80	R C
	ATOM	1988	CB	ASN	R	209	53.647	-23.981	-6.970	1.00	95.91	R C
40	ATOM	1989	C	ASN	R	209	53.914	-21.882	-8.310	1.00	95.80	R C
	ATOM	1990	O	ASN	R	209	55.114	-21.672	-8.150	1.00	96.45	R O
	ATOM	1991	N	ALA	R	210	53.272	-21.535	-9.471	1.00	94.72	R N
	ATOM	1992	CA	ALA	R	210	53.984	-20.679	-10.372	1.00	94.16	R C
	ATOM	1993	CB	ALA	R	210	55.324	-20.490	-9.802	1.00	93.34	R C
45	ATOM	1994	C	ALA	R	210	54.173	-21.188	-11.727	1.00	94.18	R C
	ATOM	1995	O	ALA	R	210	54.019	-22.340	-12.136	1.00	94.20	R O
	ATOM	1996	N	GLY	R	211	54.350	-20.070	-12.407	1.00	94.38	R N
	ATOM	1997	CA	GLY	R	211	55.687	-19.730	-12.616	1.00	94.63	R C
	ATOM	1998	C	GLY	R	211	55.979	-18.821	-13.853	1.00	95.21	R C
50	ATOM	1999	O	GLY	R	211	57.147	-18.479	-14.185	1.00	96.27	R O
	ATOM	2000	N	LYS	R	212	54.946	-18.419	-14.628	1.00	94.97	R N
	ATOM	2001	CA	LYS	R	212	53.509	-18.475	-14.380	1.00	94.25	R C
	ATOM	2002	CB	LYS	R	212	52.637	-18.475	-15.650	1.00	94.92	R C
	ATOM	2003	C	LYS	R	212	53.083	-17.372	-13.420	1.00	93.59	R C
55	ATOM	2004	O	LYS	R	212	52.082	-16.687	-13.538	1.00	93.83	R O
	ATOM	2005	N	ILE	R	213	53.894	-17.246	-12.371	1.00	92.42	R N
	ATOM	2006	CA	ILE	R	213	54.088	-15.920	-11.881	1.00	91.16	R C
	ATOM	2007	CB	ILE	R	213	54.454	-16.057	-10.403	1.00	91.36	R C
	ATOM	2008	C	ILE	R	213	55.216	-15.382	-12.781	1.00	90.27	R C
60	ATOM	2009	O	ILE	R	213	55.931	-16.146	-13.391	1.00	91.19	R O
	ATOM	2010	N	LYS	R	214	55.449	-14.078	-12.885	1.00	88.61	R N

ATOM	2011	CA	LYS	R	214	55.517	-13.243	-11.735	1.00	86.29	R	C
ATOM	2012	CB	LYS	R	214	56.288	-12.003	-12.189	1.00	86.22	R	C
ATOM	2013	C	LYS	R	214	54.163	-12.841	-11.268	1.00	84.26	R	C
ATOM	2014	O	LYS	R	214	53.269	-12.542	-12.049	1.00	84.28	R	O
ATOM	2015	N	PRO	R	215	53.988	-12.879	-9.968	1.00	81.59	R	N
ATOM	2016	CD	PRO	R	215	54.698	-13.643	-8.962	1.00	80.19	R	C
ATOM	2017	CA	PRO	R	215	52.980	-12.057	-9.392	1.00	79.54	R	C
ATOM	2018	CB	PRO	R	215	53.302	-11.929	-7.903	1.00	80.09	R	C
ATOM	2019	CG	PRO	R	215	54.360	-12.976	-7.554	1.00	80.43	R	C
ATOM	2020	C	PRO	R	215	53.026	-10.687	-10.110	1.00	77.50	R	C
ATOM	2021	O	PRO	R	215	54.099	-10.107	-10.259	1.00	77.69	R	O
ATOM	2022	N	SER	R	216	51.828	-10.243	-10.616	1.00	75.99	R	N
ATOM	2023	CA	SER	R	216	51.660	-8.826	-11.042	1.00	74.40	R	C
ATOM	2024	CB	SER	R	216	51.054	-8.795	-12.451	1.00	74.52	R	C
ATOM	2025	OG	SER	R	216	51.361	-7.546	-13.070	1.00	75.58	R	O
ATOM	2026	C	SER	R	216	50.712	-8.058	-10.081	1.00	73.20	R	C
ATOM	2027	O	SER	R	216	49.594	-8.459	-9.784	1.00	72.12	R	O
ATOM	2028	N	PHE	R	217	51.253	-6.957	-9.506	1.00	72.00	R	N
ATOM	2029	CA	PHE	R	217	50.463	-6.155	-8.580	1.00	71.16	R	C
ATOM	2030	CB	PHE	R	217	51.351	-5.718	-7.410	1.00	71.05	R	C
ATOM	2031	CG	PHE	R	217	52.005	-6.881	-6.740	1.00	71.64	R	C
ATOM	2032	CD1	PHE	R	217	53.247	-7.331	-7.192	1.00	72.43	R	C
ATOM	2033	CD2	PHE	R	217	51.379	-7.498	-5.662	1.00	71.96	R	C
ATOM	2034	CE1	PHE	R	217	53.872	-8.369	-6.543	1.00	71.92	R	C
ATOM	2035	CE2	PHE	R	217	52.024	-8.545	-5.008	1.00	72.65	R	C
ATOM	2036	CZ	PHE	R	217	53.284	-8.979	-5.431	1.00	72.45	R	C
ATOM	2037	C	PHE	R	217	49.876	-4.897	-9.226	1.00	69.71	R	C
ATOM	2038	O	PHE	R	217	50.434	-4.318	-10.167	1.00	69.81	R	O
ATOM	2039	N	ASN	R	218	48.709	-4.460	-8.796	1.00	69.22	R	N
ATOM	2040	CA	ASN	R	218	48.378	-3.039	-9.002	1.00	67.82	R	C
ATOM	2041	CB	ASN	R	218	47.499	-3.078	-10.262	1.00	68.56	R	C
ATOM	2042	CG	ASN	R	218	47.411	-1.735	-11.083	1.00	69.14	R	C
ATOM	2043	OD1	ASN	R	218	46.282	-1.290	-11.316	1.00	68.24	R	O
ATOM	2044	ND2	ASN	R	218	48.550	-1.234	-11.638	1.00	69.11	R	N
ATOM	2045	C	ASN	R	218	47.685	-2.335	-7.829	1.00	67.04	R	C
ATOM	2046	O	ASN	R	218	46.882	-2.948	-7.054	1.00	67.27	R	O
ATOM	2047	N	ILE	R	219	47.882	-1.008	-7.739	1.00	65.28	R	N
ATOM	2048	CA	ILE	R	219	47.072	-0.257	-6.782	1.00	62.22	R	C
ATOM	2049	CB	ILE	R	219	47.889	0.718	-6.154	1.00	61.26	R	C
ATOM	2050	CG2	ILE	R	219	47.089	1.423	-5.015	1.00	60.00	R	C
ATOM	2051	CG1	ILE	R	219	49.245	0.171	-5.849	1.00	60.74	R	C
ATOM	2052	CD1	ILE	R	219	49.142	-0.750	-4.532	1.00	61.59	R	C
ATOM	2053	C	ILE	R	219	45.912	0.453	-7.427	1.00	60.80	R	C
ATOM	2054	O	ILE	R	219	46.063	1.318	-8.100	1.00	60.85	R	O
ATOM	2055	N	VAL	R	220	44.725	0.274	-6.972	1.00	59.05	R	N
ATOM	2056	CA	VAL	R	220	43.615	0.807	-7.625	1.00	58.49	R	C
ATOM	2057	CB	VAL	R	220	42.595	-0.222	-7.732	1.00	58.24	R	C
ATOM	2058	CG1	VAL	R	220	41.264	0.389	-7.943	1.00	57.03	R	C
ATOM	2059	CG2	VAL	R	220	42.879	-1.176	-8.784	1.00	58.45	R	C
ATOM	2060	C	VAL	R	220	43.046	1.823	-6.630	1.00	59.18	R	C
ATOM	2061	O	VAL	R	220	42.640	1.446	-5.576	1.00	58.01	R	O
ATOM	2062	N	PRO	R	221	43.019	3.098	-6.931	1.00	59.22	R	N
ATOM	2063	CD	PRO	R	221	43.756	3.682	-8.065	1.00	59.51	R	C
ATOM	2064	CA	PRO	R	221	42.377	4.080	-6.016	1.00	59.09	R	C
ATOM	2065	CB	PRO	R	221	43.035	5.431	-6.332	1.00	59.17	R	C
ATOM	2066	CG	PRO	R	221	43.602	5.276	-7.714	1.00	60.65	R	C
ATOM	2067	C	PRO	R	221	40.916	4.053	-6.228	1.00	58.55	R	C
ATOM	2068	O	PRO	R	221	40.365	3.642	-7.271	1.00	57.97	R	O
ATOM	2069	N	LEU	R	222	40.307	4.324	-5.110	1.00	58.65	R	N
ATOM	2070	CA	LEU	R	222	38.862	4.396	-4.976	1.00	59.43	R	C
ATOM	2071	CB	LEU	R	222	38.401	3.880	-3.581	1.00	59.09	R	C

ATOM	2072	CG	LEU	R	222	38.866	2.400	-3.381	1.00	59.86	R	C
ATOM	2073	CD1	LEU	R	222	38.159	2.093	-2.020	1.00	59.90	R	C
ATOM	2074	CD2	LEU	R	222	38.427	1.312	-4.282	1.00	59.54	R	C
ATOM	2075	C	LEU	R	222	38.335	5.826	-5.198	1.00	59.51	R	C
ATOM	2076	O	LEU	R	222	37.141	6.194	-4.797	1.00	60.14	R	O
ATOM	2077	N	THR	R	223	39.177	6.628	-5.887	1.00	59.04	R	N
ATOM	2078	CA	THR	R	223	38.769	8.017	-6.126	1.00	60.53	R	C
ATOM	2079	CB	THR	R	223	39.803	8.955	-5.469	1.00	60.13	R	C
ATOM	2080	OG1	THR	R	223	41.112	8.701	-6.077	1.00	58.81	R	O
ATOM	2081	CG2	THR	R	223	39.943	8.602	-3.942	1.00	59.96	R	C
ATOM	2082	C	THR	R	223	38.586	8.352	-7.661	1.00	61.12	R	C
ATOM	2083	O	THR	R	223	38.600	9.585	-7.991	1.00	62.12	R	O
ATOM	2084	N	SER	R	224	38.761	7.327	-8.481	1.00	60.44	R	N
ATOM	2085	CA	SER	R	224	38.631	7.431	-9.949	1.00	60.05	R	C
ATOM	2086	CB	SER	R	224	39.940	7.844	-10.698	1.00	59.15	R	C
ATOM	2087	OG	SER	R	224	40.975	7.094	-10.323	1.00	58.96	R	O
ATOM	2088	C	SER	R	224	38.190	6.157	-10.509	1.00	60.34	R	C
ATOM	2089	O	SER	R	224	37.994	5.195	-9.813	1.00	60.32	R	O
ATOM	2090	N	ARG	R	225	37.989	6.198	-11.805	1.00	60.24	R	N
ATOM	2091	CA	ARG	R	225	37.473	4.990	-12.554	1.00	60.06	R	C
ATOM	2092	CB	ARG	R	225	38.651	4.004	-12.686	1.00	61.47	R	C
ATOM	2093	CG	ARG	R	225	39.769	4.381	-13.915	1.00	62.36	R	C
ATOM	2094	CD	ARG	R	225	41.050	3.677	-13.667	1.00	64.74	R	C
ATOM	2095	NE	ARG	R	225	40.782	2.359	-14.166	1.00	68.21	R	N
ATOM	2096	CZ	ARG	R	225	40.836	2.004	-15.433	1.00	69.76	R	C
ATOM	2097	NH1	ARG	R	225	41.215	2.854	-16.406	1.00	70.99	R	N
ATOM	2098	NH2	ARG	R	225	40.462	0.799	-15.754	1.00	68.97	R	N
ATOM	2099	C	ARG	R	225	36.261	4.370	-11.811	1.00	58.98	R	C
ATOM	2100	O	ARG	R	225	36.180	3.187	-11.400	1.00	58.24	R	O
ATOM	2101	N	VAL	R	226	35.242	5.198	-11.679	1.00	58.09	R	N
ATOM	2102	CA	VAL	R	226	33.963	4.757	-11.138	1.00	57.67	R	C
ATOM	2103	CB	VAL	R	226	33.581	5.553	-9.962	1.00	57.05	R	C
ATOM	2104	CG1	VAL	R	226	32.230	5.098	-9.412	1.00	57.97	R	C
ATOM	2105	CG2	VAL	R	226	34.626	5.400	-9.019	1.00	56.30	R	C
ATOM	2106	C	VAL	R	226	32.929	4.899	-12.171	1.00	57.20	R	C
ATOM	2107	O	VAL	R	226	32.683	5.977	-12.594	1.00	57.69	R	O
ATOM	2108	N	LYS	R	227	32.277	3.803	-12.432	1.00	56.07	R	N
ATOM	2109	CA	LYS	R	227	31.173	3.677	-13.343	1.00	55.34	R	C
ATOM	2110	CB	LYS	R	227	31.412	2.625	-14.480	1.00	56.41	R	C
ATOM	2111	CG	LYS	R	227	30.200	2.673	-15.576	1.00	58.70	R	C
ATOM	2112	CD	LYS	R	227	30.323	1.372	-16.396	1.00	60.42	R	C
ATOM	2113	CE	LYS	R	227	29.315	1.215	-17.612	1.00	61.76	R	C
ATOM	2114	NZ	LYS	R	227	29.788	0.113	-18.509	1.00	64.37	R	N
ATOM	2115	C	LYS	R	227	29.725	3.609	-12.754	1.00	54.15	R	C
ATOM	2116	O	LYS	R	227	29.399	2.631	-12.202	1.00	53.75	R	O
ATOM	2117	N	PRO	R	228	28.953	4.718	-12.738	1.00	52.91	R	N
ATOM	2118	CD	PRO	R	228	29.263	6.094	-13.221	1.00	51.97	R	C
ATOM	2119	CA	PRO	R	228	27.716	4.690	-12.075	1.00	52.45	R	C
ATOM	2120	CB	PRO	R	228	27.255	6.125	-12.135	1.00	52.90	R	C
ATOM	2121	CG	PRO	R	228	28.408	7.011	-12.531	1.00	52.61	R	C
ATOM	2122	C	PRO	R	228	26.782	3.857	-12.908	1.00	52.98	R	C
ATOM	2123	O	PRO	R	228	26.949	3.618	-14.112	1.00	53.18	R	O
ATOM	2124	N	ASP	R	229	25.778	3.467	-12.223	1.00	53.47	R	N
ATOM	2125	CA	ASP	R	229	24.575	2.942	-12.833	1.00	53.83	R	C
ATOM	2126	CB	ASP	R	229	23.619	2.451	-11.626	1.00	54.59	R	C
ATOM	2127	CG	ASP	R	229	23.773	0.904	-11.364	1.00	55.86	R	C
ATOM	2128	OD1	ASP	R	229	22.857	0.403	-10.684	1.00	56.05	R	O
ATOM	2129	OD2	ASP	R	229	24.745	0.178	-11.874	1.00	54.82	R	O
ATOM	2130	C	ASP	R	229	23.875	4.007	-13.620	1.00	53.79	R	C
ATOM	2131	O	ASP	R	229	24.155	5.197	-13.521	1.00	54.18	R	O
ATOM	2132	N	PRO	R	230	22.902	3.626	-14.361	1.00	53.39	R	N

	ATOM	2133	CD	PRO	R	230	22.655	2.234	-14.865	1.00	52.47	R	C
	ATOM	2134	CA	PRO	R	230	22.149	4.642	-15.096	1.00	51.12	R	C
	ATOM	2135	CB	PRO	R	230	21.618	3.824	-16.264	1.00	52.08	R	C
	ATOM	2136	CG	PRO	R	230	21.439	2.553	-15.823	1.00	53.31	R	C
5	ATOM	2137	C	PRO	R	230	21.032	5.316	-14.361	1.00	50.11	R	C
	ATOM	2138	O	PRO	R	230	20.585	4.913	-13.309	1.00	49.02	R	O
	ATOM	2139	N	PRO	R	231	20.645	6.470	-14.824	1.00	49.41	R	N
	ATOM	2140	CD	PRO	R	231	21.209	7.201	-15.948	1.00	47.62	R	C
	ATOM	2141	CA	PRO	R	231	19.558	7.155	-14.158	1.00	49.23	R	C
10	ATOM	2142	CB	PRO	R	231	19.820	8.559	-14.487	1.00	48.55	R	C
	ATOM	2143	CG	PRO	R	231	20.363	8.402	-15.906	1.00	48.87	R	C
	ATOM	2144	C	PRO	R	231	18.225	6.726	-14.621	1.00	50.36	R	C
	ATOM	2145	O	PRO	R	231	18.108	5.913	-15.535	1.00	49.57	R	O
	ATOM	2146	N	HIS	R	232	17.184	7.294	-14.050	1.00	51.65	R	N
15	ATOM	2147	CA	HIS	R	232	15.898	6.777	-14.461	1.00	55.01	R	C
	ATOM	2148	CB	HIS	R	232	15.326	5.916	-13.298	1.00	58.75	R	C
	ATOM	2149	CG	HIS	R	232	16.040	4.570	-13.111	1.00	64.23	R	C
	ATOM	2150	CD2	HIS	R	232	17.226	4.301	-12.418	1.00	66.01	R	C
	ATOM	2151	ND1	HIS	R	232	15.509	3.378	-13.508	1.00	66.21	R	N
20	ATOM	2152	CE1	HIS	R	232	16.394	2.428	-13.135	1.00	66.33	R	C
	ATOM	2153	NE2	HIS	R	232	17.424	2.951	-12.477	1.00	67.23	R	N
	ATOM	2154	C	HIS	R	232	14.984	7.987	-14.716	1.00	54.86	R	C
	ATOM	2155	O	HIS	R	232	14.789	8.823	-13.855	1.00	55.11	R	O
	ATOM	2156	N	ILE	R	233	14.490	8.130	-15.957	1.00	55.90	R	N
25	ATOM	2157	CA	ILE	R	233	13.668	9.309	-16.230	1.00	57.90	R	C
	ATOM	2158	CB	ILE	R	233	13.488	9.425	-17.746	1.00	55.99	R	C
	ATOM	2159	CG2	ILE	R	233	12.523	10.592	-18.052	1.00	54.70	R	C
	ATOM	2160	CG1	ILE	R	233	14.820	9.768	-18.450	1.00	54.05	R	C
	ATOM	2161	CD1	ILE	R	233	14.821	9.352	-19.932	1.00	51.18	R	C
30	ATOM	2162	C	ILE	R	233	12.296	9.207	-15.516	1.00	59.58	R	C
	ATOM	2163	O	ILE	R	233	11.658	8.168	-15.524	1.00	60.77	R	O
	ATOM	2164	N	LYS	R	234	11.885	10.306	-14.815	1.00	62.94	R	N
	ATOM	2165	CA	LYS	R	234	10.553	10.308	-14.137	1.00	66.66	R	C
	ATOM	2166	CB	LYS	R	234	10.612	11.067	-12.787	1.00	67.92	R	C
35	ATOM	2167	CG	LYS	R	234	11.368	10.348	-11.657	1.00	71.28	R	C
	ATOM	2168	CD	LYS	R	234	11.312	11.168	-10.373	1.00	73.35	R	C
	ATOM	2169	CE	LYS	R	234	11.778	10.430	-9.129	1.00	75.77	R	C
	ATOM	2170	NZ	LYS	R	234	12.379	11.410	-8.240	1.00	77.02	R	N
	ATOM	2171	C	LYS	R	234	9.421	10.914	-15.004	1.00	68.02	R	C
40	ATOM	2172	O	LYS	R	234	8.393	10.292	-15.238	1.00	68.12	R	O
	ATOM	2173	N	ASN	R	235	9.597	12.200	-15.425	1.00	69.38	R	N
	ATOM	2174	CA	ASN	R	235	8.652	12.746	-16.405	1.00	72.11	R	C
	ATOM	2175	CB	ASN	R	235	7.476	13.438	-15.735	1.00	73.57	R	C
	ATOM	2176	CG	ASN	R	235	6.324	13.450	-16.725	1.00	75.24	R	C
45	ATOM	2177	OD1	ASN	R	235	5.944	12.424	-17.277	1.00	77.18	R	O
	ATOM	2178	ND2	ASN	R	235	5.708	14.635	-16.867	1.00	75.83	R	N
	ATOM	2179	C	ASN	R	235	9.298	13.669	-17.448	1.00	72.52	R	C
	ATOM	2180	O	ASN	R	235	10.396	14.173	-17.321	1.00	73.58	R	O
	ATOM	2181	N	LEU	R	236	8.528	13.806	-18.543	1.00	72.32	R	N
50	ATOM	2182	CA	LEU	R	236	8.782	14.830	-19.552	1.00	72.18	R	C
	ATOM	2183	CB	LEU	R	236	9.080	14.173	-20.879	1.00	71.35	R	C
	ATOM	2184	CG	LEU	R	236	10.173	13.126	-20.782	1.00	70.86	R	C
	ATOM	2185	CD1	LEU	R	236	10.182	12.196	-21.988	1.00	69.29	R	C
	ATOM	2186	CD2	LEU	R	236	11.542	13.777	-20.782	1.00	70.35	R	C
55	ATOM	2187	C	LEU	R	236	7.523	15.666	-19.730	1.00	72.55	R	C
	ATOM	2188	O	LEU	R	236	6.399	15.210	-19.575	1.00	72.54	R	O
	ATOM	2189	N	SER	R	237	7.699	16.922	-20.088	1.00	72.99	R	N
	ATOM	2190	CA	SER	R	237	6.545	17.784	-20.314	1.00	74.18	R	C
	ATOM	2191	CB	SER	R	237	5.836	18.006	-18.979	1.00	72.83	R	C
60	ATOM	2192	OG	SER	R	237	6.739	18.620	-18.060	1.00	72.56	R	O
	ATOM	2193	C	SER	R	237	6.951	19.125	-20.925	1.00	76.06	R	C

	ATOM	2194	O	SER	R	237	8.116	19.510	-20.949	1.00	76.03	R	O
	ATOM	2195	N	PHE	R	238	5.936	19.820	-21.477	1.00	77.57	R	N
	ATOM	2196	CA	PHE	R	238	6.223	21.066	-22.176	1.00	79.64	R	C
	ATOM	2197	CB	PHE	R	238	5.311	21.142	-23.399	1.00	77.79	R	C
5	ATOM	2198	CG	PHE	R	238	5.618	20.018	-24.344	1.00	76.60	R	C
	ATOM	2199	CD1	PHE	R	238	4.694	18.993	-24.509	1.00	75.57	R	C
	ATOM	2200	CD2	PHE	R	238	6.752	20.072	-25.139	1.00	76.20	R	C
	ATOM	2201	CE1	PHE	R	238	4.900	18.029	-25.485	1.00	74.70	R	C
	ATOM	2202	CE2	PHE	R	238	6.951	19.100	-26.117	1.00	75.82	R	C
10	ATOM	2203	CZ	PHE	R	238	6.026	18.079	-26.297	1.00	75.62	R	C
	ATOM	2204	C	PHE	R	238	5.992	22.291	-21.290	1.00	81.71	R	C
	ATOM	2205	O	PHE	R	238	5.041	22.374	-20.523	1.00	82.54	R	O
	ATOM	2206	N	HIS	R	239	6.933	23.247	-21.387	1.00	84.05	R	N
	ATOM	2207	CA	HIS	R	239	6.730	24.522	-20.723	1.00	86.76	R	C
15	ATOM	2208	CB	HIS	R	239	7.562	24.539	-19.451	1.00	88.55	R	C
	ATOM	2209	CG	HIS	R	239	8.087	25.935	-19.238	1.00	90.57	R	C
	ATOM	2210	CD2	HIS	R	239	9.335	26.327	-18.739	1.00	91.49	R	C
	ATOM	2211	ND1	HIS	R	239	7.373	27.051	-19.528	1.00	91.70	R	N
	ATOM	2212	CE1	HIS	R	239	8.164	28.090	-19.201	1.00	92.58	R	C
20	ATOM	2213	NE2	HIS	R	239	9.347	27.689	-18.726	1.00	92.43	R	N
	ATOM	2214	C	HIS	R	239	7.180	25.668	-21.621	1.00	87.52	R	C
	ATOM	2215	O	HIS	R	239	8.347	25.994	-21.715	1.00	87.44	R	O
	ATOM	2216	N	ASN	R	240	6.204	26.256	-22.310	1.00	88.29	R	N
	ATOM	2217	CA	ASN	R	240	6.572	27.235	-23.314	1.00	88.24	R	C
25	ATOM	2218	CB	ASN	R	240	7.705	28.079	-22.739	1.00	88.25	R	C
	ATOM	2219	C	ASN	R	240	7.026	26.486	-24.568	1.00	88.02	R	C
	ATOM	2220	O	ASN	R	240	6.444	25.488	-24.980	1.00	88.51	R	O
	ATOM	2221	N	ASP	R	241	8.086	26.970	-25.210	1.00	87.16	R	N
	ATOM	2222	CA	ASP	R	241	8.400	26.251	-26.430	1.00	86.30	R	C
30	ATOM	2223	CB	ASP	R	241	8.645	27.275	-27.532	1.00	87.95	R	C
	ATOM	2224	CG	ASP	R	241	7.339	28.063	-27.722	1.00	87.67	R	C
	ATOM	2225	OD1	ASP	R	241	6.295	27.510	-27.353	1.00	88.15	R	O
	ATOM	2226	OD2	ASP	R	241	7.367	29.216	-28.150	1.00	88.12	R	O
	ATOM	2227	C	ASP	R	241	9.531	25.218	-26.253	1.00	85.04	R	C
35	ATOM	2228	O	ASP	R	241	10.205	24.828	-27.191	1.00	85.17	R	O
	ATOM	2229	N	ASP	R	242	9.583	24.714	-25.000	1.00	82.57	R	N
	ATOM	2230	CA	ASP	R	242	10.706	23.872	-24.616	1.00	80.06	R	C
	ATOM	2231	CB	ASP	R	242	11.390	24.580	-23.455	1.00	80.43	R	C
	ATOM	2232	CG	ASP	R	242	12.185	25.775	-23.943	1.00	81.48	R	C
40	ATOM	2233	OD1	ASP	R	242	12.368	25.864	-25.151	1.00	81.91	R	O
	ATOM	2234	OD2	ASP	R	242	12.603	26.595	-23.124	1.00	81.63	R	O
	ATOM	2235	C	ASP	R	242	10.272	22.492	-24.112	1.00	78.44	R	C
	ATOM	2236	O	ASP	R	242	9.123	22.088	-24.167	1.00	79.46	R	O
	ATOM	2237	N	LEU	R	243	11.276	21.763	-23.574	1.00	75.69	R	N
45	ATOM	2238	CA	LEU	R	243	11.000	20.446	-23.006	1.00	73.52	R	C
	ATOM	2239	CB	LEU	R	243	11.458	19.394	-24.018	1.00	72.84	R	C
	ATOM	2240	CG	LEU	R	243	10.788	18.034	-23.804	1.00	72.09	R	C
	ATOM	2241	CD1	LEU	R	243	11.612	16.882	-24.382	1.00	71.29	R	C
	ATOM	2242	CD2	LEU	R	243	10.574	17.709	-22.327	1.00	72.11	R	C
50	ATOM	2243	C	LEU	R	243	11.741	20.241	-21.680	1.00	72.81	R	C
	ATOM	2244	O	LEU	R	243	12.963	20.186	-21.631	1.00	73.08	R	O
	ATOM	2245	N	TYR	R	244	10.928	20.170	-20.611	1.00	71.27	R	N
	ATOM	2246	CA	TYR	R	244	11.479	19.957	-19.278	1.00	70.19	R	C
	ATOM	2247	CB	TYR	R	244	10.477	20.516	-18.267	1.00	72.06	R	C
55	ATOM	2248	CG	TYR	R	244	11.149	20.761	-16.963	1.00	74.30	R	C
	ATOM	2249	CD1	TYR	R	244	12.307	21.534	-16.907	1.00	75.35	R	C
	ATOM	2250	CE1	TYR	R	244	12.891	21.829	-15.679	1.00	76.01	R	C
	ATOM	2251	CD2	TYR	R	244	10.590	20.273	-15.782	1.00	75.12	R	C
	ATOM	2252	CE2	TYR	R	244	11.178	20.559	-14.558	1.00	74.79	R	C
60	ATOM	2253	CZ	TYR	R	244	12.323	21.329	-14.503	1.00	75.92	R	C
	ATOM	2254	OH	TYR	R	244	12.891	21.640	-13.282	1.00	75.92	R	O

ATOM	2255	C	TYR	R	244	11.696	18.468	-18.999	1.00	68.92	R	C
ATOM	2256	O	TYR	R	244	10.784	17.653	-19.015	1.00	67.48	R	O
ATOM	2257	N	VAL	R	245	12.972	18.115	-18.762	1.00	68.19	R	N
ATOM	2258	CA	VAL	R	245	13.238	16.721	-18.435	1.00	66.99	R	C
ATOM	2259	CB	VAL	R	245	14.344	16.187	-19.341	1.00	67.14	R	C
ATOM	2260	CG1	VAL	R	245	14.629	14.717	-19.009	1.00	65.54	R	C
ATOM	2261	CG2	VAL	R	245	13.902	16.280	-20.790	1.00	65.15	R	C
ATOM	2262	C	VAL	R	245	13.573	16.529	-16.954	1.00	66.24	R	C
ATOM	2263	O	VAL	R	245	14.270	17.314	-16.315	1.00	66.44	R	O
ATOM	2264	N	GLN	R	246	12.997	15.441	-16.403	1.00	65.56	R	N
ATOM	2265	CA	GLN	R	246	13.115	15.140	-14.975	1.00	65.49	R	C
ATOM	2266	CB	GLN	R	246	11.739	15.396	-14.333	1.00	67.51	R	C
ATOM	2267	CG	GLN	R	246	11.831	15.846	-12.870	1.00	70.06	R	C
ATOM	2268	CD	GLN	R	246	10.691	16.796	-12.544	1.00	71.11	R	C
ATOM	2269	OE1	GLN	R	246	9.698	16.922	-13.247	1.00	70.54	R	O
ATOM	2270	NE2	GLN	R	246	10.872	17.488	-11.400	1.00	70.86	R	N
ATOM	2271	C	GLN	R	246	13.551	13.684	-14.765	1.00	64.64	R	C
ATOM	2272	O	GLN	R	246	13.068	12.760	-15.412	1.00	65.52	R	O
ATOM	2273	N	TRP	R	247	14.536	13.493	-13.858	1.00	63.78	R	N
ATOM	2274	CA	TRP	R	247	15.092	12.144	-13.688	1.00	62.34	R	C
ATOM	2275	CB	TRP	R	247	16.108	11.890	-14.805	1.00	61.18	R	C
ATOM	2276	CG	TRP	R	247	17.394	12.599	-14.573	1.00	60.79	R	C
ATOM	2277	CD2	TRP	R	247	17.796	13.862	-15.156	1.00	60.06	R	C
ATOM	2278	CE2	TRP	R	247	19.140	14.100	-14.767	1.00	60.10	R	C
ATOM	2279	CE3	TRP	R	247	17.140	14.798	-15.948	1.00	58.87	R	C
ATOM	2280	CD1	TRP	R	247	18.522	12.107	-13.876	1.00	60.74	R	C
ATOM	2281	NE1	TRP	R	247	19.596	12.942	-13.960	1.00	59.43	R	N
ATOM	2282	CZ2	TRP	R	247	19.780	15.266	-15.160	1.00	58.49	R	C
ATOM	2283	CZ3	TRP	R	247	17.783	15.957	-16.349	1.00	57.78	R	C
ATOM	2284	CH2	TRP	R	247	19.107	16.198	-15.942	1.00	57.93	R	C
ATOM	2285	C	TRP	R	247	15.735	11.884	-12.316	1.00	62.27	R	C
ATOM	2286	O	TRP	R	247	16.012	12.776	-11.535	1.00	61.13	R	O
ATOM	2287	N	GLU	R	248	15.929	10.577	-12.040	1.00	62.92	R	N
ATOM	2288	CA	GLU	R	248	16.487	10.148	-10.767	1.00	64.61	R	C
ATOM	2289	CB	GLU	R	248	15.536	9.101	-10.183	1.00	66.82	R	C
ATOM	2290	CG	GLU	R	248	16.044	8.487	-8.879	1.00	72.44	R	C
ATOM	2291	CD	GLU	R	248	15.069	7.423	-8.426	1.00	75.78	R	C
ATOM	2292	OE1	GLU	R	248	14.881	7.271	-7.227	1.00	76.82	R	O
ATOM	2293	OE2	GLU	R	248	14.483	6.766	-9.286	1.00	77.17	R	O
ATOM	2294	C	GLU	R	248	17.881	9.547	-10.959	1.00	63.40	R	C
ATOM	2295	O	GLU	R	248	18.079	8.578	-11.678	1.00	62.30	R	O
ATOM	2296	N	ASN	R	249	18.882	10.192	-10.330	1.00	63.16	R	N
ATOM	2297	CA	ASN	R	249	20.228	9.638	-10.413	1.00	63.41	R	C
ATOM	2298	CB	ASN	R	249	21.207	10.669	-9.845	1.00	61.84	R	C
ATOM	2299	CG	ASN	R	249	21.375	11.809	-10.817	1.00	61.58	R	C
ATOM	2300	OD1	ASN	R	249	21.437	11.627	-12.030	1.00	61.61	R	O
ATOM	2301	ND2	ASN	R	249	21.469	13.026	-10.253	1.00	61.70	R	N
ATOM	2302	C	ASN	R	249	20.331	8.340	-9.611	1.00	63.66	R	C
ATOM	2303	O	ASN	R	249	19.469	8.000	-8.814	1.00	63.48	R	O
ATOM	2304	N	PRO	R	250	21.409	7.584	-9.878	1.00	63.57	R	N
ATOM	2305	CD	PRO	R	250	22.444	7.800	-10.874	1.00	63.27	R	C
ATOM	2306	CA	PRO	R	250	21.674	6.361	-9.133	1.00	64.11	R	C
ATOM	2307	CB	PRO	R	250	22.946	5.737	-9.701	1.00	63.59	R	C
ATOM	2308	CG	PRO	R	250	23.260	6.432	-11.023	1.00	63.95	R	C
ATOM	2309	C	PRO	R	250	21.840	6.661	-7.639	1.00	65.15	R	C
ATOM	2310	O	PRO	R	250	22.533	7.580	-7.229	1.00	64.73	R	O
ATOM	2311	N	GLN	R	251	21.135	5.861	-6.818	1.00	66.03	R	N
ATOM	2312	CA	GLN	R	251	21.045	6.167	-5.391	1.00	66.28	R	C
ATOM	2313	CB	GLN	R	251	20.367	4.987	-4.687	1.00	69.33	R	C
ATOM	2314	CG	GLN	R	251	19.467	5.423	-3.526	1.00	74.19	R	C
ATOM	2315	CD	GLN	R	251	18.810	4.207	-2.909	1.00	75.95	R	C

	ATOM	2316	OE1	GLN	R	251	17.614	4.144	-2.674	1.00	76.89	R O
	ATOM	2317	NE2	GLN	R	251	19.669	3.204	-2.634	1.00	76.36	R N
	ATOM	2318	C	GLN	R	251	22.406	6.500	-4.729	1.00	63.78	R C
	ATOM	2319	O	GLN	R	251	22.511	7.392	-3.905	1.00	63.33	R O
5	ATOM	2320	N	ASN	R	252	23.454	5.723	-5.102	1.00	61.66	R N
	ATOM	2321	CA	ASN	R	252	24.780	5.877	-4.463	1.00	60.52	R C
	ATOM	2322	CB	ASN	R	252	25.678	4.714	-4.874	1.00	59.39	R C
	ATOM	2323	CG	ASN	R	252	25.160	3.386	-4.394	1.00	59.91	R C
	ATOM	2324	OD1	ASN	R	252	25.580	2.328	-4.860	1.00	58.57	R O
10	ATOM	2325	ND2	ASN	R	252	24.281	3.436	-3.381	1.00	57.39	R N
	ATOM	2326	C	ASN	R	252	25.513	7.161	-4.868	1.00	60.26	R C
	ATOM	2327	O	ASN	R	252	26.552	7.522	-4.312	1.00	59.23	R O
	ATOM	2328	N	PHE	R	253	25.003	7.814	-5.924	1.00	59.77	R N
	ATOM	2329	CA	PHE	R	253	25.624	9.048	-6.322	1.00	59.18	R C
15	ATOM	2330	CB	PHE	R	253	25.933	9.038	-7.808	1.00	56.76	R C
	ATOM	2331	CG	PHE	R	253	26.911	7.957	-8.123	1.00	55.92	R C
	ATOM	2332	CD1	PHE	R	253	26.452	6.655	-8.263	1.00	55.78	R C
	ATOM	2333	CD2	PHE	R	253	28.269	8.256	-8.278	1.00	55.39	R C
	ATOM	2334	CE1	PHE	R	253	27.360	5.635	-8.533	1.00	55.18	R C
20	ATOM	2335	CE2	PHE	R	253	29.164	7.221	-8.566	1.00	56.05	R C
	ATOM	2336	CZ	PHE	R	253	28.712	5.920	-8.691	1.00	56.84	R C
	ATOM	2337	C	PHE	R	253	24.723	10.189	-6.034	1.00	59.89	R C
	ATOM	2338	O	PHE	R	253	23.509	10.088	-5.964	1.00	61.22	R O
	ATOM	2339	N	ILE	R	254	25.384	11.301	-5.843	1.00	60.15	R N
25	ATOM	2340	CA	ILE	R	254	24.684	12.483	-5.501	1.00	59.95	R C
	ATOM	2341	CB	ILE	R	254	25.335	12.928	-4.205	1.00	62.03	R C
	ATOM	2342	CG2	ILE	R	254	26.791	12.411	-4.197	1.00	63.18	R C
	ATOM	2343	CG1	ILE	R	254	25.389	14.447	-4.172	1.00	62.64	R C
	ATOM	2344	CD1	ILE	R	254	26.001	14.971	-2.876	1.00	62.24	R C
30	ATOM	2345	C	ILE	R	254	24.926	13.483	-6.590	1.00	59.07	R C
	ATOM	2346	O	ILE	R	254	25.969	13.482	-7.255	1.00	59.16	R O
	ATOM	2347	N	SER	R	255	23.996	14.309	-6.862	1.00	58.74	R N
	ATOM	2348	CA	SER	R	255	23.956	15.080	-8.086	1.00	58.94	R C
	ATOM	2349	CB	SER	R	255	22.644	15.831	-8.045	1.00	58.94	R C
35	ATOM	2350	OG	SER	R	255	22.458	16.746	-9.147	1.00	62.51	R O
	ATOM	2351	C	SER	R	255	25.122	15.995	-8.454	1.00	58.42	R C
	ATOM	2352	O	SER	R	255	25.599	16.070	-9.628	1.00	58.51	R O
	ATOM	2353	N	ARG	R	256	25.583	16.759	-7.484	1.00	57.50	R N
	ATOM	2354	CA	ARG	R	256	26.653	17.643	-7.758	1.00	55.75	R C
40	ATOM	2355	CB	ARG	R	256	26.808	18.702	-6.582	1.00	57.39	R C
	ATOM	2356	CG	ARG	R	256	27.236	18.154	-5.258	1.00	58.42	R C
	ATOM	2357	CD	ARG	R	256	27.694	19.178	-4.274	1.00	58.58	R C
	ATOM	2358	NE	ARG	R	256	27.686	18.482	-2.990	1.00	60.41	R N
	ATOM	2359	CZ	ARG	R	256	26.577	18.201	-2.279	1.00	60.88	R C
45	ATOM	2360	NH1	ARG	R	256	25.360	18.530	-2.655	1.00	59.81	R N
	ATOM	2361	NH2	ARG	R	256	26.693	17.611	-1.141	1.00	60.03	R N
	ATOM	2362	C	ARG	R	256	27.938	16.926	-8.025	1.00	53.84	R C
	ATOM	2363	O	ARG	R	256	28.885	17.569	-8.396	1.00	52.44	R O
	ATOM	2364	N	CYS	R	257	27.983	15.636	-7.866	1.00	52.68	R N
50	ATOM	2365	CA	CYS	R	257	29.166	14.845	-8.206	1.00	52.72	R C
	ATOM	2366	C	CYS	R	257	29.178	14.290	-9.641	1.00	51.14	R C
	ATOM	2367	O	CYS	R	257	30.145	13.655	-10.058	1.00	50.47	R O
	ATOM	2368	CB	CYS	R	257	29.186	13.673	-7.249	1.00	54.19	R C
	ATOM	2369	SG	CYS	R	257	29.650	14.132	-5.568	1.00	60.74	R S
55	ATOM	2370	N	LEU	R	258	28.143	14.511	-10.377	1.00	48.40	R N
	ATOM	2371	CA	LEU	R	258	27.918	13.913	-11.614	1.00	47.82	R C
	ATOM	2372	CB	LEU	R	258	26.655	13.157	-11.529	1.00	46.62	R C
	ATOM	2373	CG	LEU	R	258	26.504	11.934	-10.673	1.00	47.57	R C
	ATOM	2374	CD1	LEU	R	258	25.160	11.346	-10.859	1.00	48.25	R C
60	ATOM	2375	CD2	LEU	R	258	27.535	10.901	-11.209	1.00	45.86	R C
	ATOM	2376	C	LEU	R	258	27.783	14.984	-12.653	1.00	47.12	R C

	ATOM	2377	O	LEU	R	258	27.275	16.075	-12.364	1.00	46.63	R	O
	ATOM	2378	N	PHE	R	259	28.101	14.607	-13.826	1.00	45.55	R	N
	ATOM	2379	CA	PHE	R	259	27.739	15.318	-15.113	1.00	45.70	R	C
	ATOM	2380	CB	PHE	R	259	28.971	15.748	-15.963	1.00	46.66	R	C
5	ATOM	2381	CG	PHE	R	259	29.726	17.012	-15.450	1.00	49.54	R	C
	ATOM	2382	CD1	PHE	R	259	29.244	17.725	-14.274	1.00	49.69	R	C
	ATOM	2383	CD2	PHE	R	259	30.981	17.457	-16.045	1.00	50.86	R	C
	ATOM	2384	CE1	PHE	R	259	29.902	18.916	-13.682	1.00	50.58	R	C
	ATOM	2385	CE2	PHE	R	259	31.690	18.722	-15.533	1.00	50.28	R	C
10	ATOM	2386	CZ	PHE	R	259	31.152	19.366	-14.260	1.00	50.45	R	C
	ATOM	2387	C	PHE	R	259	26.845	14.450	-15.962	1.00	46.12	R	C
	ATOM	2388	O	PHE	R	259	26.928	13.262	-15.914	1.00	46.40	R	O
	ATOM	2389	N	TYR	R	260	26.097	15.063	-16.918	1.00	45.23	R	N
	ATOM	2390	CA	TYR	R	260	25.091	14.347	-17.606	1.00	45.84	R	C
15	ATOM	2391	CB	TYR	R	260	23.650	14.675	-17.082	1.00	46.70	R	C
	ATOM	2392	CG	TYR	R	260	23.579	14.806	-15.612	1.00	49.36	R	C
	ATOM	2393	CD1	TYR	R	260	23.861	15.967	-15.000	1.00	50.50	R	C
	ATOM	2394	CE1	TYR	R	260	23.852	16.066	-13.479	1.00	52.78	R	C
	ATOM	2395	CD2	TYR	R	260	23.241	13.718	-14.809	1.00	49.26	R	C
20	ATOM	2396	CE2	TYR	R	260	23.133	13.831	-13.473	1.00	51.55	R	C
	ATOM	2397	CZ	TYR	R	260	23.544	14.925	-12.762	1.00	53.08	R	C
	ATOM	2398	OH	TYR	R	260	23.422	14.967	-11.316	1.00	56.10	R	O
	ATOM	2399	C	TYR	R	260	25.158	14.463	-19.098	1.00	45.82	R	C
	ATOM	2400	O	TYR	R	260	25.518	15.477	-19.703	1.00	46.96	R	O
25	ATOM	2401	N	GLU	R	261	24.649	13.439	-19.772	1.00	45.39	R	N
	ATOM	2402	CA	GLU	R	261	24.356	13.555	-21.222	1.00	44.70	R	C
	ATOM	2403	CB	GLU	R	261	25.294	12.703	-21.907	1.00	42.68	R	C
	ATOM	2404	CG	GLU	R	261	26.123	13.417	-22.942	1.00	46.04	R	C
	ATOM	2405	CD	GLU	R	261	27.233	12.676	-23.736	1.00	48.58	R	C
30	ATOM	2406	OE1	GLU	R	261	28.384	13.293	-23.854	1.00	48.48	R	O
	ATOM	2407	OE2	GLU	R	261	26.918	11.551	-24.307	1.00	50.76	R	O
	ATOM	2408	C	GLU	R	261	22.852	13.311	-21.527	1.00	44.68	R	C
	ATOM	2409	O	GLU	R	261	22.356	12.280	-21.353	1.00	44.51	R	O
	ATOM	2410	N	VAL	R	262	22.148	14.288	-22.026	1.00	43.07	R	N
35	ATOM	2411	CA	VAL	R	262	20.816	14.139	-22.348	1.00	44.29	R	C
	ATOM	2412	CB	VAL	R	262	20.003	15.258	-21.830	1.00	43.85	R	C
	ATOM	2413	CG1	VAL	R	262	18.561	15.075	-22.070	1.00	43.87	R	C
	ATOM	2414	CG2	VAL	R	262	20.244	15.536	-20.345	1.00	43.73	R	C
	ATOM	2415	C	VAL	R	262	20.661	14.112	-23.893	1.00	45.69	R	C
40	ATOM	2416	O	VAL	R	262	20.808	15.105	-24.535	1.00	45.95	R	O
	ATOM	2417	N	GLU	R	263	20.264	12.971	-24.382	1.00	47.42	R	N
	ATOM	2418	CA	GLU	R	263	19.855	12.647	-25.633	1.00	49.96	R	C
	ATOM	2419	CB	GLU	R	263	20.217	11.119	-25.870	1.00	51.56	R	C
	ATOM	2420	CG	GLU	R	263	20.072	10.749	-27.461	1.00	53.01	R	C
45	ATOM	2421	CD	GLU	R	263	19.925	9.223	-27.656	1.00	55.42	R	C
	ATOM	2422	OE1	GLU	R	263	20.906	8.628	-28.122	1.00	56.59	R	O
	ATOM	2423	OE2	GLU	R	263	18.855	8.513	-27.239	1.00	57.62	R	O
	ATOM	2424	C	GLU	R	263	18.340	12:852	-26.019	1.00	50.75	R	C
	ATOM	2425	O	GLU	R	263	17.385	12.312	-25.460	1.00	48.99	R	O
50	ATOM	2426	N	VAL	R	264	18.129	13.621	-27.087	1.00	52.50	R	N
	ATOM	2427	CA	VAL	R	264	16.773	13.878	-27.641	1.00	54.11	R	C
	ATOM	2428	CB	VAL	R	264	16.295	15.309	-27.377	1.00	53.62	R	C
	ATOM	2429	CG1	VAL	R	264	14.771	15.521	-27.633	1.00	51.79	R	C
	ATOM	2430	CG2	VAL	R	264	16.569	15.771	-25.785	1.00	52.95	R	C
55	ATOM	2431	C	VAL	R	264	16.711	13.636	-29.117	1.00	55.80	R	C
	ATOM	2432	O	VAL	R	264	17.429	14.292	-29.756	1.00	56.07	R	O
	ATOM	2433	N	ASN	R	265	15.831	12.729	-29.615	1.00	58.16	R	N
	ATOM	2434	CA	ASN	R	265	15.491	12.533	-31.017	1.00	61.43	R	C
	ATOM	2435	CB	ASN	R	265	15.626	11.064	-31.500	1.00	60.70	R	C
60	ATOM	2436	CG	ASN	R	265	16.969	10.489	-31.183	1.00	61.63	R	C
	ATOM	2437	OD1	ASN	R	265	17.775	11.218	-30.646	1.00	61.76	R	O

ATOM	2438	ND2	ASN	R	265	17.227	9.190	-31.394	1.00	61.47	R	N
ATOM	2439	C	ASN	R	265	14.086	13.023	-31.342	1.00	63.85	R	C
ATOM	2440	O	ASN	R	265	13.083	12.831	-30.585	1.00	64.60	R	O
ATOM	2441	N	ASN	R	266	13.994	13.722	-32.460	1.00	66.73	R	N
ATOM	2442	CA	ASN	R	266	12.742	14.154	-33.058	1.00	69.50	R	C
ATOM	2443	CB	ASN	R	266	12.925	15.589	-33.554	1.00	71.22	R	C
ATOM	2444	CG	ASN	R	266	11.579	16.255	-33.675	1.00	73.17	R	C
ATOM	2445	OD1	ASN	R	266	10.774	15.938	-34.546	1.00	74.20	R	O
ATOM	2446	ND2	ASN	R	266	11.330	17.204	-32.755	1.00	73.74	R	N
ATOM	2447	C	ASN	R	266	12.354	13.248	-34.221	1.00	71.29	R	C
ATOM	2448	O	ASN	R	266	12.975	13.234	-35.275	1.00	70.99	R	O
ATOM	2449	N	SER	R	267	11.313	12.431	-33.987	1.00	73.90	R	N
ATOM	2450	CA	SER	R	267	10.880	11.511	-35.034	1.00	76.24	R	C
ATOM	2451	CB	SER	R	267	9.778	10.618	-34.462	1.00	76.17	R	C
ATOM	2452	OG	SER	R	267	10.139	10.204	-33.149	1.00	78.71	R	O
ATOM	2453	C	SER	R	267	10.350	12.269	-36.255	1.00	77.66	R	C
ATOM	2454	O	SER	R	267	10.318	11.773	-37.370	1.00	78.45	R	O
ATOM	2455	N	GLN	R	268	9.893	13.507	-35.990	1.00	79.01	R	N
ATOM	2456	CA	GLN	R	268	9.325	14.312	-37.060	1.00	80.98	R	C
ATOM	2457	CB	GLN	R	268	8.546	15.459	-36.429	1.00	83.07	R	C
ATOM	2458	CG	GLN	R	268	7.176	15.013	-35.922	1.00	86.65	R	C
ATOM	2459	CD	GLN	R	268	6.383	16.235	-35.535	1.00	88.88	R	C
ATOM	2460	OE1	GLN	R	268	5.232	16.191	-35.127	1.00	89.31	R	O
ATOM	2461	NE2	GLN	R	268	7.068	17.380	-35.696	1.00	89.89	R	N
ATOM	2462	C	GLN	R	268	10.393	14.852	-38.017	1.00	81.08	R	C
ATOM	2463	O	GLN	R	268	10.331	14.664	-39.228	1.00	81.44	R	O
ATOM	2464	N	THR	R	269	11.368	15.591	-37.453	1.00	80.39	R	N
ATOM	2465	CA	THR	R	269	12.446	16.091	-38.304	1.00	78.88	R	C
ATOM	2466	CB	THR	R	269	12.978	17.415	-37.738	1.00	79.42	R	C
ATOM	2467	OG1	THR	R	269	13.483	17.219	-36.420	1.00	79.08	R	O
ATOM	2468	CG2	THR	R	269	11.846	18.446	-37.673	1.00	78.99	R	C
ATOM	2469	C	THR	R	269	13.559	15.049	-38.477	1.00	77.19	R	C
ATOM	2470	O	THR	R	269	14.251	14.995	-39.482	1.00	76.91	R	O
ATOM	2471	N	GLU	R	270	13.698	14.183	-37.451	1.00	75.45	R	N
ATOM	2472	CA	GLU	R	270	14.706	13.132	-37.519	1.00	73.85	R	C
ATOM	2473	CB	GLU	R	270	14.895	12.737	-38.984	1.00	76.06	R	C
ATOM	2474	CG	GLU	R	270	15.160	11.241	-39.154	1.00	79.07	R	C
ATOM	2475	CD	GLU	R	270	14.611	10.783	-40.487	1.00	80.62	R	C
ATOM	2476	OE1	GLU	R	270	15.308	10.067	-41.194	1.00	81.22	R	O
ATOM	2477	OE2	GLU	R	270	13.486	11.157	-40.814	1.00	81.18	R	O
ATOM	2478	C	GLU	R	270	16.031	13.604	-36.920	1.00	71.07	R	C
ATOM	2479	O	GLU	R	270	17.053	12.934	-36.983	1.00	69.75	R	O
ATOM	2480	N	THR	R	271	15.990	14.826	-36.359	1.00	68.27	R	N
ATOM	2481	CA	THR	R	271	17.189	15.387	-35.747	1.00	66.22	R	C
ATOM	2482	CB	THR	R	271	16.966	16.889	-35.574	1.00	67.03	R	C
ATOM	2483	OG1	THR	R	271	17.016	17.518	-36.856	1.00	69.01	R	O
ATOM	2484	CG2	THR	R	271	18.059	17.487	-34.685	1.00	66.87	R	C
ATOM	2485	C	THR	R	271	17.481	14.743	-34.389	1.00	63.55	R	C
ATOM	2486	O	THR	R	271	16.584	14.416	-33.623	1.00	62.52	R	O
ATOM	2487	N	HIS	R	272	18.743	14.504	-34.137	1.00	62.01	R	N
ATOM	2488	CA	HIS	R	272	19.355	13.780	-33.016	1.00	60.41	R	C
ATOM	2489	CB	HIS	R	272	20.146	12.614	-33.522	1.00	60.09	R	C
ATOM	2490	CG	HIS	R	272	20.925	11.930	-32.476	1.00	64.26	R	C
ATOM	2491	CD2	HIS	R	272	20.641	11.652	-31.186	1.00	65.40	R	C
ATOM	2492	ND1	HIS	R	272	22.234	11.563	-32.644	1.00	66.46	R	N
ATOM	2493	CE1	HIS	R	272	22.721	11.079	-31.508	1.00	66.77	R	C
ATOM	2494	NE2	HIS	R	272	21.753	11.080	-30.622	1.00	65.74	R	N
ATOM	2495	C	HIS	R	272	20.212	14.860	32.362	1.00	58.50	R	C
ATOM	2496	O	HIS	R	272	21.117	15.411	-32.924	1.00	57.95	R	O
ATOM	2497	N	ASN	R	273	19.853	15.196	-31.198	1.00	56.75	R	N
ATOM	2498	CA	ASN	R	273	20.636	16.051	-30.290	1.00	56.29	R	C

ATOM	2499	CB	ASN	R	273	19.719	17.140	-29.794	1.00	57.24	R	C
ATOM	2500	CG	ASN	R	273	19.529	18.290	-30.791	1.00	59.20	R	C
ATOM	2501	OD1	ASN	R	273	18.437	18.683	-31.010	1.00	60.99	R	O
ATOM	2502	ND2	ASN	R	273	20.618	18.821	-31.401	1.00	61.33	R	N
ATOM	2503	C	ASN	R	273	21.205	15.359	-28.972	1.00	54.78	R	C
ATOM	2504	O	ASN	R	273	20.592	14.472	-28.332	1.00	54.60	R	O
ATOM	2505	N	VAL	R	274	22.395	15.849	-28.533	1.00	52.12	R	N
ATOM	2506	CA	VAL	R	274	23.079	15.410	-27.426	1.00	49.18	R	C
ATOM	2507	CB	VAL	R	274	24.216	14.505	-27.781	1.00	49.10	R	C
ATOM	2508	CG1	VAL	R	274	24.845	14.060	-26.519	1.00	47.67	R	C
ATOM	2509	CG2	VAL	R	274	23.756	13.114	-28.509	1.00	47.62	R	C
ATOM	2510	C	VAL	R	274	23.485	16.648	-26.596	1.00	48.00	R	C
ATOM	2511	O	VAL	R	274	24.321	17.401	-27.074	1.00	48.15	R	O
ATOM	2512	N	PHE	R	275	22.898	16.838	-25.430	1.00	46.02	R	N
ATOM	2513	CA	PHE	R	275	23.223	17.997	-24.604	1.00	46.97	R	C
ATOM	2514	CB	PHE	R	275	22.043	18.598	-23.942	1.00	45.65	R	C
ATOM	2515	CG	PHE	R	275	21.058	19.190	-24.895	1.00	47.42	R	C
ATOM	2516	CD1	PHE	R	275	20.129	18.361	-25.638	1.00	46.46	R	C
ATOM	2517	CD2	PHE	R	275	21.162	20.508	-25.191	1.00	46.21	R	C
ATOM	2518	CE1	PHE	R	275	19.178	18.931	-26.577	1.00	46.27	R	C
ATOM	2519	CE2	PHE	R	275	20.316	21.057	-26.240	1.00	45.90	R	C
ATOM	2520	CZ	PHE	R	275	19.245	20.320	-26.842	1.00	46.37	R	C
ATOM	2521	C	PHE	R	275	24.080	17.489	-23.421	1.00	48.11	R	C
ATOM	2522	O	PHE	R	275	23.804	16.462	-22.790	1.00	47.90	R	O
ATOM	2523	N	TYR	R	276	25.205	18.120	-23.289	1.00	48.11	R	N
ATOM	2524	CA	TYR	R	276	26.132	17.892	-22.206	1.00	49.41	R	C
ATOM	2525	CB	TYR	R	276	27.556	18.113	-22.781	1.00	51.00	R	C
ATOM	2526	CG	TYR	R	276	28.687	17.896	-21.890	1.00	52.00	R	C
ATOM	2527	CD1	TYR	R	276	29.180	18.909	-21.024	1.00	53.82	R	C
ATOM	2528	CE1	TYR	R	276	30.356	18.592	-20.072	1.00	54.29	R	C
ATOM	2529	CD2	TYR	R	276	29.218	16.669	-21.773	1.00	52.53	R	C
ATOM	2530	CE2	TYR	R	276	30.255	16.322	-20.863	1.00	53.11	R	C
ATOM	2531	CZ	TYR	R	276	30.780	17.252	-19.988	1.00	54.24	R	C
ATOM	2532	OH	TYR	R	276	31.868	16.862	-19.341	1.00	56.13	R	O
ATOM	2533	C	TYR	R	276	25.880	18.902	-21.133	1.00	49.44	R	C
ATOM	2534	O	TYR	R	276	26.056	20.049	-21.242	1.00	47.42	R	O
ATOM	2535	N	VAL	R	277	25.490	18.395	-19.987	1.00	51.00	R	N
ATOM	2536	CA	VAL	R	277	25.051	19.280	-18.964	1.00	52.54	R	C
ATOM	2537	CB	VAL	R	277	23.458	19.284	-18.838	1.00	53.05	R	C
ATOM	2538	CG1	VAL	R	277	22.640	18.569	-19.923	1.00	51.02	R	C
ATOM	2539	CG2	VAL	R	277	22.965	19.091	-17.483	1.00	52.55	R	C
ATOM	2540	C	VAL	R	277	25.751	19.142	-17.613	1.00	54.64	R	C
ATOM	2541	O	VAL	R	277	25.862	18.026	-17.077	1.00	53.39	R	O
ATOM	2542	N	GLN	R	278	26.333	20.223	-17.123	1.00	57.64	R	N
ATOM	2543	CA	GLN	R	278	27.081	20.216	-15.792	1.00	60.92	R	C
ATOM	2544	CB	GLN	R	278	28.210	21.082	-15.824	1.00	62.64	R	C
ATOM	2545	CG	GLN	R	278	28.680	21.292	-17.239	1.00	66.68	R	C
ATOM	2546	CD	GLN	R	278	30.278	21.646	-17.406	1.00	68.72	R	C
ATOM	2547	OE1	GLN	R	278	31.062	21.601	-16.435	1.00	69.80	R	O
ATOM	2548	NE2	GLN	R	278	30.682	22.000	-18.645	1.00	69.14	R	N
ATOM	2549	C	GLN	R	278	26.264	20.455	-14.545	1.00	61.75	R	C
ATOM	2550	O	GLN	R	278	26.522	20.013	-13.532	1.00	61.88	R	O
ATOM	2551	N	GLU	R	279	25.160	21.102	-14.739	1.00	63.48	R	N
ATOM	2552	CA	GLU	R	279	24.333	21.641	-13.721	1.00	65.20	R	C
ATOM	2553	CB	GLU	R	279	24.469	23.152	-13.731	1.00	65.02	R	C
ATOM	2554	C	GLU	R	279	22.905	21.254	-14.034	1.00	66.40	R	C
ATOM	2555	O	GLU	R	279	22.318	21.601	-15.055	1.00	66.33	R	O
ATOM	2556	N	ALA	R	280	22.345	20.440	-13.145	1.00	68.12	R	N
ATOM	2557	CA	ALA	R	280	20.986	20.030	-13.386	1.00	70.55	R	C
ATOM	2558	CB	ALA	R	280	20.995	18.527	-13.699	1.00	68.51	R	C
ATOM	2559	C	ALA	R	280	20.177	20.253	-12.142	1.00	72.94	R	C

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ATOM   2560  O   ALA R 280      19.634  19.327 -11.575  1.00 72.68      R    O
ATOM   2561  N   LYS R 281      20.159  21.537 -11.689  1.00 75.96      R    N
ATOM   2562  CA  LYS R 281      19.418  21.812 -10.474  1.00 79.54      R    C
ATOM   2563  CB  LYS R 281      19.816  23.160  -9.886  1.00 79.86      R    C
ATOM   2564  CG  LYS R 281      19.897  23.025  -8.363  1.00 80.01      R    C
ATOM   2565  CD  LYS R 281      20.945  23.937  -7.726  1.00 79.40      R    C
ATOM   2566  CE  LYS R 281      22.361  23.389  -7.882  1.00 79.46      R    C
ATOM   2567  NZ  LYS R 281      23.266  24.502  -8.130  1.00 79.43      R    N
ATOM   2568  C   LYS R 281      17.923  21.719 -10.689  1.00 82.08      R    C
ATOM   2569  O   LYS R 281      17.290  22.454 -11.445  1.00 81.67      R    O
ATOM   2570  N   CYS R 282      17.338  20.710 -10.049  1.00 84.54      R    N
ATOM   2571  CA  CYS R 282      15.930  20.563 -10.411  1.00 86.72      R    C
ATOM   2572  C   CYS R 282      15.074  21.633  -9.740  1.00 88.49      R    C
ATOM   2573  O   CYS R 282      14.287  21.367  -8.834  1.00 89.72      R    O
ATOM   2574  CB  CYS R 282      15.473  19.183  -9.941  1.00 86.35      R    C
ATOM   2575  SG  CYS R 282      14.708  18.208 -11.254  1.00 88.45      R    S
ATOM   2576  N   GLU R 283      15.265  22.886 -10.178  1.00 90.11      R    N
ATOM   2577  CA  GLU R 283      14.567  23.943  -9.463  1.00 92.03      R    C
ATOM   2578  CB  GLU R 283      14.600  23.581  -7.981  1.00 92.46      R    C
ATOM   2579  CG  GLU R 283      14.683  24.814  -7.078  1.00 93.73      R    C
ATOM   2580  CD  GLU R 283      13.454  25.660  -7.294  1.00 95.07      R    C
ATOM   2581  OE1 GLU R 283      13.554  26.872  -7.195  1.00 95.36      R    O
ATOM   2582  OE2 GLU R 283      12.407  25.093  -7.596  1.00 95.10      R    O
ATOM   2583  C   GLU R 283      15.219  25.319  -9.637  1.00 93.03      R    C
ATOM   2584  O   GLU R 283      16.389  25.531  -9.343  1.00 93.42      R    O
ATOM   2585  N   ASN R 284      14.440  26.266 -10.203  1.00 94.22      R    N
ATOM   2586  CA  ASN R 284      13.147  25.899 -10.787  1.00 95.83      R    C
ATOM   2587  CB  ASN R 284      12.279  27.158 -10.865  1.00 95.79      R    C
ATOM   2588  C   ASN R 284      13.304  25.291 -12.185  1.00 97.36      R    C
ATOM   2589  O   ASN R 284      14.158  24.452 -12.440  1.00 98.00      R    O
ATOM   2590  N   PRO R 285      12.396  25.707 -13.095  1.00 98.24      R    N
ATOM   2591  CD  PRO R 285      12.412  25.484 -14.529  1.00 98.86      R    C
ATOM   2592  CA  PRO R 285      11.267  26.543 -12.732  1.00 99.16      R    C
ATOM   2593  CB  PRO R 285      10.547  26.976 -14.000  1.00 98.54      R    C
ATOM   2594  CG  PRO R 285      11.139  26.213 -15.175  1.00 98.67      R    C
ATOM   2595  C   PRO R 285      10.275  25.842 -11.797  1.00 99.89      R    C
ATOM   2596  O   PRO R 285      10.314  24.647 -11.549  1.00 99.92      R    O
ATOM   2597  N   GLU R 286       9.353  26.690 -11.303  1.00100.79      R    N
ATOM   2598  CA  GLU R 286       8.546  26.374 -10.125  1.00102.10      R    C
ATOM   2599  CB  GLU R 286       8.208  27.715  -9.500  1.00103.19      R    C
ATOM   2600  CG  GLU R 286       9.398  28.655  -9.739  1.00106.31      R    C
ATOM   2601  CD  GLU R 286       9.043  30.101  -9.504  1.00109.22      R    C
ATOM   2602  OE1 GLU R 286       8.023  30.541 -10.005  1.00110.82      R    O
ATOM   2603  OE2 GLU R 286       9.891  30.817  -8.965  1.00109.63      R    O
ATOM   2604  C   GLU R 286       7.297  25.553 -10.455  1.00101.95      R    C
ATOM   2605  O   GLU R 286       6.579  25.070  -9.602  1.00102.44      R    O
ATOM   2606  N   PHE R 287       7.049  25.392 -11.760  1.00101.53      R    N
ATOM   2607  CA  PHE R 287       6.017  24.441 -12.168  1.00101.39      R    C
ATOM   2608  CB  PHE R 287       6.246  24.166 -13.655  1.00100.97      R    C
ATOM   2609  CG  PHE R 287       5.519  25.184 -14.443  1.00100.24      R    C
ATOM   2610  CD1 PHE R 287       5.083  26.324 -13.787  1.00100.27      R    C
ATOM   2611  CD2 PHE R 287       5.407  25.073 -15.813  1.00 99.82      R    C
ATOM   2612  CE1 PHE R 287       4.554  27.379 -14.516  1.00100.42      R    C
ATOM   2613  CE2 PHE R 287       4.877  26.135 -16.534  1.00 99.79      R    C
ATOM   2614  CZ  PHE R 287       4.453  27.296 -15.891  1.00 99.91      R    C
ATOM   2615  C   PHE R 287       6.231  23.106 -11.495  1.00101.27      R    C
ATOM   2616  O   PHE R 287       5.662  22.768 -10.455  1.00101.94      R    O
ATOM   2617  N   GLU R 288       7.071  22.346 -12.238  1.00100.02      R    N
ATOM   2618  CA  GLU R 288       7.559  21.018 -11.927  1.00 98.61      R    C
ATOM   2619  CB  GLU R 288       8.364  20.608 -13.169  1.00 98.36      R    C
ATOM   2620  CG  GLU R 288       8.288  21.663 -14.287  1.00 96.79      R    C
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	ATOM	2621	CD	GLU	R	288	7.189	21.296	-15.253	1.00	96.23	R	C
	ATOM	2622	OE1	GLU	R	288	6.418	20.383	-14.968	1.00	95.74	R	O
	ATOM	2623	OE2	GLU	R	288	7.114	21.939	-16.289	1.00	95.82	R	O
	ATOM	2624	C	GLU	R	288	8.475	20.990	-10.695	1.00	98.28	R	C
5	ATOM	2625	O	GLU	R	288	8.806	21.999	-10.105	1.00	99.09	R	O
	ATOM	2626	N	ASN	R	293	15.776	13.988	-4.556	1.00	96.30	R	N
	ATOM	2627	CA	ASN	R	293	16.678	13.056	-5.247	1.00	94.19	R	C
	ATOM	2628	CB	ASN	R	293	16.082	11.655	-5.105	1.00	94.17	R	C
	ATOM	2629	C	ASN	R	293	16.848	13.400	-6.723	1.00	93.16	R	C
10	ATOM	2630	O	ASN	R	293	17.584	12.788	-7.497	1.00	93.06	R	O
	ATOM	2631	N	THR	R	294	16.059	14.403	-7.132	1.00	91.21	R	N
	ATOM	2632	CA	THR	R	294	15.794	14.564	-8.540	1.00	89.29	R	C
	ATOM	2633	CB	THR	R	294	14.284	14.787	-8.711	1.00	89.60	R	C
	ATOM	2634	OG1	THR	R	294	13.617	13.719	-8.060	1.00	90.25	R	O
15	ATOM	2635	CG2	THR	R	294	13.874	14.837	-10.198	1.00	89.47	R	C
	ATOM	2636	C	THR	R	294	16.596	15.682	-9.162	1.00	87.98	R	C
	ATOM	2637	O	THR	R	294	17.329	16.461	-8.558	1.00	88.24	R	O
	ATOM	2638	N	SER	R	295	16.502	15.680	-10.483	1.00	85.90	R	N
	ATOM	2639	CA	SER	R	295	17.297	16.611	-11.209	1.00	83.53	R	C
20	ATOM	2640	CB	SER	R	295	18.671	15.968	-11.391	1.00	83.77	R	C
	ATOM	2641	OG	SER	R	295	19.141	15.529	-10.111	1.00	83.53	R	O
	ATOM	2642	C	SER	R	295	16.643	16.780	-12.538	1.00	81.72	R	C
	ATOM	2643	O	SER	R	295	15.926	15.900	-12.998	1.00	81.17	R	O
	ATOM	2644	N	CYS	R	296	16.885	17.964	-13.112	1.00	80.55	R	N
25	ATOM	2645	CA	CYS	R	296	16.281	18.168	-14.431	1.00	79.65	R	C
	ATOM	2646	C	CYS	R	296	16.939	19.321	-15.191	1.00	77.11	R	C
	ATOM	2647	O	CYS	R	296	17.746	20.071	-14.657	1.00	76.87	R	O
	ATOM	2648	CB	CYS	R	296	14.793	18.467	-14.245	1.00	82.55	R	C
	ATOM	2649	SG	CYS	R	296	14.487	19.494	-12.793	1.00	87.30	R	S
30	ATOM	2650	N	PHE	R	297	16.583	19.327	-16.478	1.00	74.68	R	N
	ATOM	2651	CA	PHE	R	297	17.301	20.129	-17.437	1.00	72.94	R	C
	ATOM	2652	CB	PHE	R	297	18.463	19.266	-17.930	1.00	69.47	R	C
	ATOM	2653	CG	PHE	R	297	18.954	19.781	-19.242	1.00	66.15	R	C
	ATOM	2654	CD1	PHE	R	297	19.634	20.988	-19.284	1.00	64.52	R	C
35	ATOM	2655	CD2	PHE	R	297	18.663	19.094	-20.408	1.00	65.09	R	C
	ATOM	2656	CE1	PHE	R	297	20.028	21.514	-20.507	1.00	63.49	R	C
	ATOM	2657	CE2	PHE	R	297	19.061	19.625	-21.633	1.00	64.98	R	C
	ATOM	2658	CZ	PHE	R	297	19.742	20.836	-21.686	1.00	63.88	R	C
	ATOM	2659	C	PHE	R	297	16.370	20.482	-18.598	1.00	73.41	R	C
40	ATOM	2660	O	PHE	R	297	15.776	19.621	-19.241	1.00	73.80	R	O
	ATOM	2661	N	MET	R	298	16.197	21.802	-18.807	1.00	74.36	R	N
	ATOM	2662	CA	MET	R	298	15.244	22.231	-19.825	1.00	74.98	R	C
	ATOM	2663	CB	MET	R	298	14.809	23.660	-19.491	1.00	78.07	R	C
	ATOM	2664	CG	MET	R	298	13.351	23.736	-19.032	1.00	81.75	R	C
45	ATOM	2665	SD	MET	R	298	12.238	24.191	-20.368	1.00	87.08	R	S
	ATOM	2666	CE	MET	R	298	10.798	23.265	-19.817	1.00	85.81	R	C
	ATOM	2667	C	MET	R	298	15.850	22.186	-21.235	1.00	73.57	R	C
	ATOM	2668	O	MET	R	298	16.835	22.840	-21.542	1.00	72.23	R	O
	ATOM	2669	N	VAL	R	299	15.243	21.340	-22.087	1.00	73.62	R	N
50	ATOM	2670	CA	VAL	R	299	15.682	21.263	-23.476	1.00	74.43	R	C
	ATOM	2671	CB	VAL	R	299	15.274	19.896	-24.016	1.00	74.27	R	C
	ATOM	2672	CG1	VAL	R	299	15.621	19.794	-25.502	1.00	73.21	R	C
	ATOM	2673	CG2	VAL	R	299	15.969	18.788	-23.253	1.00	73.35	R	C
	ATOM	2674	C	VAL	R	299	14.984	22.332	-24.307	1.00	75.41	R	C
55	ATOM	2675	O	VAL	R	299	13.754	22.362	-24.417	1.00	76.00	R	O
	ATOM	2676	N	PRO	R	300	15.766	23.256	-24.877	1.00	76.10	R	N
	ATOM	2677	CD	PRO	R	300	17.231	23.367	-24.920	1.00	75.65	R	C
	ATOM	2678	CA	PRO	R	300	15.182	24.338	-25.621	1.00	76.85	R	C
	ATOM	2679	CB	PRO	R	300	16.211	25.445	-25.714	1.00	75.84	R	C
60	ATOM	2680	CG	PRO	R	300	17.584	24.885	-25.326	1.00	76.48	R	C
	ATOM	2681	C	PRO	R	300	14.788	23.872	-27.029	1.00	77.72	R	C

ATOM	2682	O	PRO	R	300	15.439	23.062	-27.659	1.00	77.18	R	O
ATOM	2683	N	GLY	R	301	13.653	24.369	-27.508	1.00	79.03	R	N
ATOM	2684	CA	GLY	R	301	13.330	24.157	-28.925	1.00	80.40	R	C
ATOM	2685	C	GLY	R	301	12.452	22.923	-29.217	1.00	82.28	R	C
ATOM	2686	O	GLY	R	301	12.762	22.105	-30.061	1.00	82.07	R	O
ATOM	2687	N	VAL	R	302	11.340	22.803	-28.482	1.00	83.95	R	N
ATOM	2688	CA	VAL	R	302	10.336	21.802	-28.727	1.00	86.24	R	C
ATOM	2689	CB	VAL	R	302	10.530	20.719	-27.697	1.00	85.51	R	C
ATOM	2690	CG1	VAL	R	302	10.253	19.323	-28.323	1.00	84.83	R	C
ATOM	2691	CG2	VAL	R	302	12.009	20.744	-27.282	1.00	84.47	R	C
ATOM	2692	C	VAL	R	302	8.905	22.365	-28.811	1.00	87.97	R	C
ATOM	2693	O	VAL	R	302	8.717	23.561	-29.002	1.00	88.68	R	O
ATOM	2694	N	LEU	R	303	7.882	21.462	-28.616	1.00	90.03	R	N
ATOM	2695	CA	LEU	R	303	6.591	21.538	-29.421	1.00	91.47	R	C
ATOM	2696	CB	LEU	R	303	6.528	20.691	-30.692	1.00	92.45	R	C
ATOM	2697	CG	LEU	R	303	7.913	20.421	-31.277	1.00	93.46	R	C
ATOM	2698	CD1	LEU	R	303	7.925	19.130	-32.088	1.00	93.46	R	C
ATOM	2699	CD2	LEU	R	303	8.437	21.518	-32.194	1.00	93.79	R	C
ATOM	2700	C	LEU	R	303	5.161	21.816	-28.787	1.00	92.36	R	C
ATOM	2701	O	LEU	R	303	5.009	22.832	-28.151	1.00	92.58	R	O
ATOM	2702	N	PRO	R	304	4.117	20.908	-28.913	1.00	92.77	R	N
ATOM	2703	CD	PRO	R	304	2.701	21.191	-29.072	1.00	93.52	R	C
ATOM	2704	CA	PRO	R	304	4.243	19.458	-28.646	1.00	92.92	R	C
ATOM	2705	CB	PRO	R	304	2.973	19.087	-27.857	1.00	92.91	R	C
ATOM	2706	CG	PRO	R	304	1.865	20.024	-28.339	1.00	93.42	R	C
ATOM	2707	C	PRO	R	304	4.280	18.542	-29.935	1.00	92.84	R	C
ATOM	2708	O	PRO	R	304	3.308	17.898	-30.245	1.00	92.36	R	O
ATOM	2709	N	ASP	R	305	5.401	18.532	-30.664	1.00	92.50	R	N
ATOM	2710	CA	ASP	R	305	5.465	18.034	-32.072	1.00	91.71	R	C
ATOM	2711	CB	ASP	R	305	6.433	18.867	-32.899	1.00	92.01	R	C
ATOM	2712	C	ASP	R	305	6.286	16.789	-32.066	1.00	90.87	R	C
ATOM	2713	O	ASP	R	305	7.420	16.623	-32.600	1.00	91.22	R	O
ATOM	2714	N	THR	R	306	6.020	16.044	-30.999	1.00	89.25	R	N
ATOM	2715	CA	THR	R	306	6.861	15.107	-30.538	1.00	87.16	R	C
ATOM	2716	CB	THR	R	306	6.120	15.104	-29.244	1.00	87.79	R	C
ATOM	2717	C	THR	R	306	6.536	14.110	-31.632	1.00	85.68	R	C
ATOM	2718	O	THR	R	306	6.144	14.642	-32.721	1.00	86.73	R	O
ATOM	2719	N	LEU	R	307	6.647	12.740	-31.554	1.00	83.46	R	N
ATOM	2720	CA	LEU	R	307	7.670	12.045	-30.710	1.00	81.38	R	C
ATOM	2721	CB	LEU	R	307	7.861	10.885	-31.609	1.00	83.33	R	C
ATOM	2722	CG	LEU	R	307	7.911	9.727	-30.735	1.00	84.50	R	C
ATOM	2723	CD1	LEU	R	307	7.057	9.946	-29.505	1.00	85.37	R	C
ATOM	2724	CD2	LEU	R	307	7.478	8.454	-31.417	1.00	84.85	R	C
ATOM	2725	C	LEU	R	307	9.024	12.795	-30.662	1.00	78.72	R	C
ATOM	2726	O	LEU	R	307	9.802	12.910	-31.602	1.00	77.76	R	O
ATOM	2727	N	ASN	R	308	9.241	13.110	-29.379	1.00	74.87	R	N
ATOM	2728	CA	ASN	R	308	10.604	13.198	-28.882	1.00	70.88	R	C
ATOM	2729	CB	ASN	R	308	10.764	14.553	-28.180	1.00	71.05	R	C
ATOM	2730	CG	ASN	R	308	10.584	15.666	-29.187	1.00	71.32	R	C
ATOM	2731	OD1	ASN	R	308	11.524	16.086	-29.860	1.00	69.42	R	O
ATOM	2732	ND2	ASN	R	308	9.330	16.145	-29.307	1.00	72.76	R	N
ATOM	2733	C	ASN	R	308	10.837	12.039	-27.921	1.00	67.32	R	C
ATOM	2734	O	ASN	R	308	10.101	11.855	-26.960	1.00	66.33	R	O
ATOM	2735	N	THR	R	309	11.943	11.335	-28.154	1.00	63.68	R	N
ATOM	2736	CA	THR	R	309	12.474	10.361	-27.219	1.00	60.57	R	C
ATOM	2737	CB	THR	R	309	12.801	9.120	-27.933	1.00	61.54	R	C
ATOM	2738	OG1	THR	R	309	11.548	8.609	-28.443	1.00	61.79	R	O
ATOM	2739	CG2	THR	R	309	13.202	8.074	-26.978	1.00	60.41	R	C
ATOM	2740	C	THR	R	309	13.709	10.821	-26.516	1.00	57.31	R	C
ATOM	2741	O	THR	R	309	14.518	11.399	-27.106	1.00	56.57	R	O
ATOM	2742	N	VAL	R	310	13.719	10.662	-25.207	1.00	54.47	R	N

ATOM	2743	CA	VAL	R	310	14.811	10.972	-24.379	1.00	52.38	R	C
ATOM	2744	CB	VAL	R	310	14.650	12.236	-23.544	1.00	51.82	R	C
ATOM	2745	CG1	VAL	R	310	13.410	12.691	-23.283	1.00	52.41	R	C
ATOM	2746	CG2	VAL	R	310	15.644	12.478	-22.538	1.00	47.67	R	C
ATOM	2747	C	VAL	R	310	15.498	9.854	-23.760	1.00	52.00	R	C
ATOM	2748	O	VAL	R	310	14.832	8.965	-23.452	1.00	51.06	R	O
ATOM	2749	N	ARG	R	311	16.844	9.881	-23.680	1.00	50.39	R	N
ATOM	2750	CA	ARG	R	311	17.636	9.044	-22.827	1.00	50.34	R	C
ATOM	2751	CB	ARG	R	311	18.382	8.071	-23.685	1.00	49.77	R	C
ATOM	2752	CG	ARG	R	311	17.466	7.131	-24.231	1.00	50.33	R	C
ATOM	2753	CD	ARG	R	311	18.225	5.951	-24.887	1.00	48.25	R	C
ATOM	2754	NE	ARG	R	311	19.164	6.449	-25.845	1.00	48.40	R	N
ATOM	2755	CZ	ARG	R	311	20.094	5.686	-26.333	1.00	47.77	R	C
ATOM	2756	NH1	ARG	R	311	20.286	4.483	-25.817	1.00	47.01	R	N
ATOM	2757	NH2	ARG	R	311	20.930	6.183	-27.166	1.00	44.86	R	N
ATOM	2758	C	ARG	R	311	18.638	9.873	-22.106	1.00	50.05	R	C
ATOM	2759	O	ARG	R	311	19.160	10.849	-22.564	1.00	50.01	R	O
ATOM	2760	N	ILE	R	312	19.005	9.397	-20.972	1.00	49.27	R	N
ATOM	2761	CA	ILE	R	312	20.054	10.009	-20.194	1.00	48.58	R	C
ATOM	2762	CB	ILE	R	312	19.425	10.760	-18.938	1.00	48.15	R	C
ATOM	2763	CG2	ILE	R	312	20.437	11.526	-18.285	1.00	45.62	R	C
ATOM	2764	CG1	ILE	R	312	18.335	11.630	-19.384	1.00	47.07	R	C
ATOM	2765	CD1	ILE	R	312	17.552	12.196	-18.148	1.00	47.91	R	C
ATOM	2766	C	ILE	R	312	21.130	9.104	-19.668	1.00	47.90	R	C
ATOM	2767	O	ILE	R	312	20.812	8.075	-19.145	1.00	48.77	R	O
ATOM	2768	N	ARG	R	313	22.397	9.485	-19.792	1.00	46.57	R	N
ATOM	2769	CA	ARG	R	313	23.455	8.761	-19.035	1.00	46.06	R	C
ATOM	2770	CB	ARG	R	313	24.443	8.114	-20.054	1.00	45.95	R	C
ATOM	2771	CG	ARG	R	313	25.120	8.994	-20.854	1.00	43.85	R	C
ATOM	2772	CD	ARG	R	313	25.770	8.153	-22.104	1.00	45.64	R	C
ATOM	2773	NE	ARG	R	313	26.641	8.967	-22.942	1.00	47.51	R	N
ATOM	2774	CZ	ARG	R	313	27.615	8.467	-23.644	1.00	48.52	R	C
ATOM	2775	NH1	ARG	R	313	27.780	7.223	-23.634	1.00	48.93	R	N
ATOM	2776	NH2	ARG	R	313	28.440	9.211	-24.327	1.00	48.72	R	N
ATOM	2777	C	ARG	R	313	24.216	9.675	-18.156	1.00	46.35	R	C
ATOM	2778	O	ARG	R	313	24.101	10.926	-18.315	1.00	44.37	R	O
ATOM	2779	N	VAL	R	314	25.221	9.158	-17.462	1.00	45.29	R	N
ATOM	2780	CA	VAL	R	314	25.783	9.929	-16.364	1.00	45.74	R	C
ATOM	2781	CB	VAL	R	314	24.867	9.539	-15.130	1.00	46.13	R	C
ATOM	2782	CG1	VAL	R	314	25.561	9.400	-13.942	1.00	47.48	R	C
ATOM	2783	CG2	VAL	R	314	23.644	10.474	-15.035	1.00	44.87	R	C
ATOM	2784	C	VAL	R	314	27.213	9.495	-16.103	1.00	45.86	R	C
ATOM	2785	O	VAL	R	314	27.549	8.410	-16.273	1.00	45.19	R	O
ATOM	2786	N	LYS	R	315	28.012	10.410	-15.597	1.00	45.17	R	N
ATOM	2787	CA	LYS	R	315	29.411	10.186	-15.205	1.00	45.60	R	C
ATOM	2788	CB	LYS	R	315	30.396	10.453	-16.373	1.00	45.36	R	C
ATOM	2789	CG	LYS	R	315	30.500	11.871	-16.660	1.00	47.28	R	C
ATOM	2790	CD	LYS	R	315	31.601	12.117	-17.811	1.00	47.54	R	C
ATOM	2791	CE	LYS	R	315	31.724	13.600	-18.055	1.00	48.20	R	C
ATOM	2792	NZ	LYS	R	315	32.778	13.957	-19.216	1.00	47.70	R	N
ATOM	2793	C	LYS	R	315	29.860	10.915	-14.049	1.00	44.27	R	C
ATOM	2794	O	LYS	R	315	29.239	11.844	-13.662	1.00	45.27	R	O
ATOM	2795	N	THR	R	316	30.993	10.563	-13.451	1.00	43.47	R	N
ATOM	2796	CA	THR	R	316	31.399	11.337	-12.235	1.00	42.83	R	C
ATOM	2797	CB	THR	R	316	32.394	10.587	-11.331	1.00	42.26	R	C
ATOM	2798	OG1	THR	R	316	33.362	10.177	-12.194	1.00	42.09	R	O
ATOM	2799	CG2	THR	R	316	31.767	9.355	-10.816	1.00	40.88	R	C
ATOM	2800	C	THR	R	316	32.110	12.606	-12.705	1.00	43.10	R	C
ATOM	2801	O	THR	R	316	32.803	12.506	-13.640	1.00	41.11	R	O
ATOM	2802	N	ASN	R	317	31.873	13.816	-12.092	1.00	43.52	R	N
ATOM	2803	CA	ASN	R	317	32.661	14.997	-12.130	1.00	46.38	R	C

ATOM	2804	CB	ASN	R	317	32.123	16.013	-10.778	1.00	46.56	R	C
ATOM	2805	CG	ASN	R	317	31.132	16.678	-11.276	1.00	50.66	R	C
ATOM	2806	OD1	ASN	R	317	31.227	16.780	-12.543	1.00	54.75	R	O
ATOM	2807	ND2	ASN	R	317	30.170	17.164	-10.603	1.00	51.29	R	N
ATOM	2808	C	ASN	R	317	34.136	14.786	-11.786	1.00	47.72	R	C
ATOM	2809	O	ASN	R	317	34.335	13.899	-11.074	1.00	47.46	R	O
ATOM	2810	N	LYS	R	318	34.945	15.799	-11.916	1.00	48.90	R	N
ATOM	2811	CA	LYS	R	318	36.301	15.935	-11.309	1.00	50.22	R	C
ATOM	2812	CB	LYS	R	318	37.303	16.666	-12.338	1.00	52.02	R	C
ATOM	2813	CG	LYS	R	318	37.001	18.223	-12.395	1.00	54.66	R	C
ATOM	2814	CD	LYS	R	318	38.028	19.020	-13.178	1.00	56.69	R	C
ATOM	2815	CE	LYS	R	318	37.332	19.973	-14.178	1.00	60.37	R	C
ATOM	2816	NZ	LYS	R	318	38.027	21.279	-14.250	1.00	62.52	R	N
ATOM	2817	C	LYS	R	318	36.319	16.583	-9.871	1.00	49.36	R	C
ATOM	2818	O	LYS	R	318	37.357	16.477	-9.205	1.00	47.93	R	O
ATOM	2819	N	LEU	R	319	35.118	16.836	-9.312	1.00	49.14	R	N
ATOM	2820	CA	LEU	R	319	34.979	17.469	-8.010	1.00	50.76	R	C
ATOM	2821	CB	LEU	R	319	33.815	18.468	-8.032	1.00	49.52	R	C
ATOM	2822	CG	LEU	R	319	33.842	19.321	-9.298	1.00	49.50	R	C
ATOM	2823	CD1	LEU	R	319	32.549	20.109	-9.435	1.00	51.14	R	C
ATOM	2824	CD2	LEU	R	319	34.945	20.362	-9.298	1.00	49.08	R	C
ATOM	2825	C	LEU	R	319	34.826	16.488	-6.821	1.00	51.66	R	C
ATOM	2826	O	LEU	R	319	35.153	16.826	-5.671	1.00	52.10	R	O
ATOM	2827	N	CYS	R	320	34.255	15.280	-7.087	1.00	52.91	R	N
ATOM	2828	CA	CYS	R	320	34.143	14.287	-6.015	1.00	54.27	R	C
ATOM	2829	C	CYS	R	320	35.100	13.111	-6.283	1.00	54.38	R	C
ATOM	2830	O	CYS	R	320	35.793	12.594	-5.408	1.00	54.35	R	O
ATOM	2831	CB	CYS	R	320	32.670	13.787	-5.987	1.00	54.57	R	C
ATOM	2832	SG	CYS	R	320	31.444	15.094	-5.670	1.00	55.67	R	S
ATOM	2833	N	TYR	R	321	35.052	12.647	-7.540	1.00	55.44	R	N
ATOM	2834	CA	TYR	R	321	35.921	11.566	-7.924	1.00	57.49	R	C
ATOM	2835	CB	TYR	R	321	35.038	10.437	-8.520	1.00	57.62	R	C
ATOM	2836	CG	TYR	R	321	34.109	9.835	-7.496	1.00	57.79	R	C
ATOM	2837	CD1	TYR	R	321	34.556	8.880	-6.570	1.00	58.25	R	C
ATOM	2838	CE1	TYR	R	321	33.703	8.424	-5.563	1.00	58.54	R	C
ATOM	2839	CD2	TYR	R	321	32.779	10.271	-7.435	1.00	57.08	R	C
ATOM	2840	CE2	TYR	R	321	31.940	9.831	-6.417	1.00	58.22	R	C
ATOM	2841	CZ	TYR	R	321	32.377	8.910	-5.496	1.00	58.87	R	C
ATOM	2842	OH	TYR	R	321	31.560	8.536	-4.446	1.00	60.59	R	O
ATOM	2843	C	TYR	R	321	36.869	12.128	-8.981	1.00	58.70	R	C
ATOM	2844	O	TYR	R	321	37.605	13.095	-8.757	1.00	59.32	R	O
ATOM	2845	N	GLU	R	322	36.780	11.530	-10.162	1.00	60.73	R	N
ATOM	2846	CA	GLU	R	322	37.583	12.049	-11.231	1.00	62.41	R	C
ATOM	2847	CB	GLU	R	322	38.796	11.128	-11.294	1.00	64.08	R	C
ATOM	2848	CG	GLU	R	322	39.983	11.698	-12.070	1.00	70.34	R	C
ATOM	2849	CD	GLU	R	322	41.272	11.321	-11.396	1.00	74.50	R	C
ATOM	2850	OE1	GLU	R	322	42.167	10.866	-12.082	1.00	77.21	R	O
ATOM	2851	OE2	GLU	R	322	41.371	11.497	-10.186	1.00	76.90	R	O
ATOM	2852	C	GLU	R	322	36.754	11.978	-12.512	1.00	61.99	R	C
ATOM	2853	O	GLU	R	322	35.916	11.105	-12.684	1.00	61.32	R	O
ATOM	2854	N	ASP	R	323	36.944	12.970	-13.403	1.00	62.19	R	N
ATOM	2855	CA	ASP	R	323	36.259	12.864	-14.685	1.00	61.61	R	C
ATOM	2856	CB	ASP	R	323	36.043	14.277	-15.247	1.00	61.34	R	C
ATOM	2857	CG	ASP	R	323	35.390	14.308	-16.635	1.00	62.54	R	C
ATOM	2858	OD1	ASP	R	323	35.228	13.261	-17.257	1.00	61.23	R	O
ATOM	2859	OD2	ASP	R	323	35.086	15.409	-17.097	1.00	62.92	R	O
ATOM	2860	C	ASP	R	323	37.139	12.053	-15.616	1.00	60.90	R	C
ATOM	2861	O	ASP	R	323	37.947	12.567	-16.354	1.00	61.75	R	O
ATOM	2862	N	ASP	R	324	36.753	10.813	-15.617	1.00	59.09	R	N
ATOM	2863	CA	ASP	R	324	37.332	9.795	-16.458	1.00	59.54	R	C
ATOM	2864	CB	ASP	R	324	37.447	8.433	-15.700	1.00	58.18	R	C

	ATOM	2865	CG	ASP	R	324	38.404	8.540	-14.456	1.00	58.12	R C
	ATOM	2866	OD1	ASP	R	324	39.614	8.828	-14.657	1.00	55.65	R O
	ATOM	2867	OD2	ASP	R	324	37.944	8.405	-13.275	1.00	57.00	R O
	ATOM	2868	C	ASP	R	324	36.554	9.666	-17.764	1.00	59.69	R C
5	ATOM	2869	O	ASP	R	324	36.891	8.855	-18.629	1.00	59.37	R O
	ATOM	2870	N	LYS	R	325	35.502	10.483	-17.906	1.00	59.38	R N
	ATOM	2871	CA	LYS	R	325	34.622	10.260	-19.064	1.00	58.80	R C
	ATOM	2872	CB	LYS	R	325	35.382	10.517	-20.361	1.00	59.63	R C
	ATOM	2873	CG	LYS	R	325	36.262	11.761	-20.325	1.00	63.37	R C
10	ATOM	2874	CD	LYS	R	325	36.858	12.029	-21.703	1.00	65.79	R C
	ATOM	2875	CE	LYS	R	325	37.800	13.230	-21.724	1.00	68.06	R C
	ATOM	2876	NZ	LYS	R	325	37.884	13.752	-23.087	1.00	70.49	R N
	ATOM	2877	C	LYS	R	325	34.087	8.839	-19.095	1.00	57.15	R C
	ATOM	2878	O	LYS	R	325	33.972	8.198	-20.135	1.00	58.69	R O
15	ATOM	2879	N	LEU	R	326	33.803	8.331	-17.897	1.00	55.16	R N
	ATOM	2880	CA	LEU	R	326	33.319	6.971	-17.802	1.00	52.10	R C
	ATOM	2881	CB	LEU	R	326	33.986	6.352	-16.573	1.00	54.79	R C
	ATOM	2882	CG	LEU	R	326	34.495	4.932	-16.818	1.00	55.97	R C
	ATOM	2883	CD1	LEU	R	326	34.879	4.213	-15.523	1.00	57.62	R C
20	ATOM	2884	CD2	LEU	R	326	33.462	4.049	-17.512	1.00	54.38	R C
	ATOM	2885	C	LEU	R	326	31.808	6.992	-17.637	1.00	50.09	R C
	ATOM	2886	O	LEU	R	326	31.281	7.045	-16.536	1.00	48.96	R O
	ATOM	2887	N	TRP	R	327	31.102	7.012	-18.793	1.00	47.72	R N
	ATOM	2888	CA	TRP	R	327	29.654	7.144	-18.732	1.00	47.24	R C
25	ATOM	2889	CB	TRP	R	327	29.148	7.466	-20.138	1.00	44.70	R C
	ATOM	2890	CG	TRP	R	327	29.596	8.808	-20.562	1.00	42.51	R C
	ATOM	2891	CD2	TRP	R	327	29.042	10.068	-20.137	1.00	40.90	R C
	ATOM	2892	CE2	TRP	R	327	29.664	11.088	-20.904	1.00	40.28	R C
	ATOM	2893	CE3	TRP	R	327	28.087	10.423	-19.188	1.00	38.85	R C
30	ATOM	2894	CD1	TRP	R	327	30.540	9.107	-21.567	1.00	38.56	R C
	ATOM	2895	NE1	TRP	R	327	30.616	10.435	-21.836	1.00	39.52	R N
	ATOM	2896	CZ2	TRP	R	327	29.329	12.415	-20.704	1.00	38.74	R C
	ATOM	2897	CZ3	TRP	R	327	27.747	11.747	-18.988	1.00	38.32	R C
	ATOM	2898	CH2	TRP	R	327	28.375	12.752	-19.752	1.00	39.26	R C
35	ATOM	2899	C	TRP	R	327	28.982	5.859	-18.245	1.00	48.40	R C
	ATOM	2900	O	TRP	R	327	29.460	4.746	-18.442	1.00	48.70	R O
	ATOM	2901	N	SER	R	328	27.844	6.041	-17.554	1.00	48.50	R N
	ATOM	2902	CA	SER	R	328	26.995	4.889	-17.304	1.00	49.05	R C
	ATOM	2903	CB	SER	R	328	25.930	5.296	-16.287	1.00	46.82	R C
40	ATOM	2904	OG	SER	R	328	24.983	6.165	-16.912	1.00	46.96	R O
	ATOM	2905	C	SER	R	328	26.326	4.464	-18.609	1.00	49.92	R C
	ATOM	2906	O	SER	R	328	26.388	5.155	-19.623	1.00	50.22	R O
	ATOM	2907	N	ASN	R	329	25.712	3.267	-18.579	1.00	49.23	R N
	ATOM	2908	CA	ASN	R	329	24.870	2.894	-19.704	1.00	48.88	R C
45	ATOM	2909	CB	ASN	R	329	24.267	1.523	-19.395	1.00	49.16	R C
	ATOM	2910	CG	ASN	R	329	25.347	0.476	-19.454	1.00	50.84	R C
	ATOM	2911	OD1	ASN	R	329	26.343	0.615	-20.156	1.00	51.96	R O
	ATOM	2912	ND2	ASN	R	329	25.126	-0.613	-18.698	1.00	49.44	R N
	ATOM	2913	C	ASN	R	329	23.743	3.915	-19.869	1.00	48.95	R C
50	ATOM	2914	O	ASN	R	329	23.352	4.605	-18.938	1.00	48.39	R O
	ATOM	2915	N	TRP	R	330	23.240	4.032	-21.113	1.00	48.80	R N
	ATOM	2916	CA	TRP	R	330	22.086	4.893	-21.323	1.00	48.88	R C
	ATOM	2917	CB	TRP	R	330	21.711	4.851	-22.808	1.00	48.23	R C
	ATOM	2918	CG	TRP	R	330	22.688	5.621	-23.615	1.00	47.23	R C
55	ATOM	2919	CD2	TRP	R	330	22.784	7.064	-23.719	1.00	47.22	R C
	ATOM	2920	CE2	TRP	R	330	23.799	7.348	-24.670	1.00	46.29	R C
	ATOM	2921	CE3	TRP	R	330	22.123	8.119	-23.095	1.00	46.83	R C
	ATOM	2922	CD1	TRP	R	330	23.645	5.091	-24.508	1.00	47.29	R C
	ATOM	2923	NE1	TRP	R	330	24.333	6.058	-25.170	1.00	47.42	R N
60	ATOM	2924	CZ2	TRP	R	330	24.116	8.662	-24.973	1.00	45.44	R C
	ATOM	2925	CZ3	TRP	R	330	22.440	9.433	-23.398	1.00	46.73	R C

ATOM	2926	CH2	TRP	R	330	23.448	9.704	-24.340	1.00	44.89	R	C
ATOM	2927	C	TRP	R	330	20.902	4.414	-20.481	1.00	48.65	R	C
ATOM	2928	O	TRP	R	330	20.674	3.224	-20.306	1.00	50.55	R	O
ATOM	2929	N	SER	R	331	20.152	5.378	-19.917	1.00	49.56	R	N
ATOM	2930	CA	SER	R	331	18.928	4.997	-19.225	1.00	50.78	R	C
ATOM	2931	CB	SER	R	331	18.324	6.262	-18.613	1.00	49.15	R	C
ATOM	2932	OG	SER	R	331	17.739	7.052	-19.650	1.00	47.98	R	O
ATOM	2933	C	SER	R	331	17.935	4.392	-20.213	1.00	53.51	R	C
ATOM	2934	O	SER	R	331	18.126	4.413	-21.421	1.00	54.38	R	O
ATOM	2935	N	GLN	R	332	16.863	3.797	-19.663	1.00	55.70	R	N
ATOM	2936	CA	GLN	R	332	15.769	3.410	-20.539	1.00	58.54	R	C
ATOM	2937	CB	GLN	R	332	14.796	2.547	-19.739	1.00	59.23	R	C
ATOM	2938	CG	GLN	R	332	15.428	1.227	-19.293	1.00	63.58	R	C
ATOM	2939	CD	GLN	R	332	15.638	0.339	-20.497	1.00	66.03	R	C
ATOM	2940	OE1	GLN	R	332	14.717	-0.152	-21.127	1.00	68.61	R	O
ATOM	2941	NE2	GLN	R	332	16.935	0.132	-20.801	1.00	66.39	R	N
ATOM	2942	C	GLN	R	332	15.071	4.664	-21.056	1.00	58.92	R	C
ATOM	2943	O	GLN	R	332	15.113	5.728	-20.452	1.00	58.59	R	O
ATOM	2944	N	GLU	R	333	14.454	4.539	-22.238	1.00	59.74	R	N
ATOM	2945	CA	GLU	R	333	13.906	5.743	-22.834	1.00	61.05	R	C
ATOM	2946	CB	GLU	R	333	13.842	5.582	-24.354	1.00	60.90	R	C
ATOM	2947	CG	GLU	R	333	13.447	4.175	-24.795	1.00	63.18	R	C
ATOM	2948	CD	GLU	R	333	13.527	4.097	-26.303	1.00	64.95	R	C
ATOM	2949	OE1	GLU	R	333	12.589	4.523	-26.962	1.00	65.07	R	O
ATOM	2950	OE2	GLU	R	333	14.549	3.637	-26.810	1.00	65.85	R	O
ATOM	2951	C	GLU	R	333	12.531	6.097	-22.286	1.00	61.41	R	C
ATOM	2952	O	GLU	R	333	11.874	5.339	-21.585	1.00	62.10	R	O
ATOM	2953	N	MET	R	334	12.146	7.340	-22.587	1.00	61.90	R	N
ATOM	2954	CA	MET	R	334	10.780	7.764	-22.370	1.00	63.08	R	C
ATOM	2955	CB	MET	R	334	10.672	8.375	-20.973	1.00	63.01	R	C
ATOM	2956	CG	MET	R	334	9.392	9.195	-20.797	1.00	63.17	R	C
ATOM	2957	SD	MET	R	334	9.099	9.651	-19.083	1.00	65.16	R	S
ATOM	2958	CE	MET	R	334	9.266	8.012	-18.359	1.00	62.36	R	C
ATOM	2959	C	MET	R	334	10.413	8.803	-23.418	1.00	63.76	R	C
ATOM	2960	O	MET	R	334	11.200	9.678	-23.756	1.00	63.58	R	O
ATOM	2961	N	SER	R	335	9.262	8.748	-24.104	1.00	64.91	R	N
ATOM	2962	CA	SER	R	335	8.835	9.719	-25.151	1.00	66.20	R	C
ATOM	2963	CB	SER	R	335	8.655	9.130	-26.526	1.00	66.23	R	C
ATOM	2964	OG	SER	R	335	8.514	7.778	-26.432	1.00	68.31	R	O
ATOM	2965	C	SER	R	335	7.623	10.532	-24.740	1.00	67.14	R	C
ATOM	2966	O	SER	R	335	7.164	10.355	-23.583	1.00	66.71	R	O
ATOM	2967	N	ILE	R	336	7.284	11.530	-25.565	1.00	68.37	R	N
ATOM	2968	CA	ILE	R	336	6.234	12.514	-25.362	1.00	70.69	R	C
ATOM	2969	CB	ILE	R	336	6.666	13.696	-24.423	1.00	70.06	R	C
ATOM	2970	CG2	ILE	R	336	7.733	14.619	-25.063	1.00	69.34	R	C
ATOM	2971	CG1	ILE	R	336	5.485	14.609	-24.079	1.00	69.89	R	C
ATOM	2972	CD1	ILE	R	336	5.781	15.765	-23.018	1.00	69.80	R	C
ATOM	2973	C	ILE	R	336	5.835	13.142	-26.728	1.00	73.10	R	C
ATOM	2974	O	ILE	R	336	6.690	13.231	-27.607	1.00	73.37	R	O
ATOM	2975	N	GLY	R	337	4.574	13.597	-26.834	1.00	75.30	R	N
ATOM	2976	CA	GLY	R	337	3.906	14.093	-28.019	1.00	77.98	R	C
ATOM	2977	C	GLY	R	337	3.582	12.991	-28.991	1.00	80.70	R	C
ATOM	2978	O	GLY	R	337	3.771	11.830	-28.623	1.00	80.91	R	O
ATOM	2979	N	LYS	R	338	3.080	13.348	-30.199	1.00	83.73	R	N
ATOM	2980	CA	LYS	R	338	2.940	12.390	-31.351	1.00	86.40	R	C
ATOM	2981	CB	LYS	R	338	1.772	11.391	-31.148	1.00	87.18	R	C
ATOM	2982	CG	LYS	R	338	2.124	9.953	-31.819	1.00	88.18	R	C
ATOM	2983	CD	LYS	R	338	2.463	8.709	-30.943	1.00	89.20	R	C
ATOM	2984	CE	LYS	R	338	2.614	7.349	-31.841	1.00	90.05	R	C
ATOM	2985	NZ	LYS	R	338	3.830	7.108	-32.718	1.00	90.07	R	N
ATOM	2986	C	LYS	R	338	3.012	12.883	-32.821	1.00	87.92	R	C

	ATOM	2987	O	LYS	R	338	3.053	14.078	-33.092	1.00	88.32	R	O
	ATOM	2988	N	LYS	R	339	3.244	11.860	-33.664	1.00	89.43	R	N
	ATOM	2989	CA	LYS	R	339	2.989	11.514	-35.098	1.00	90.66	R	C
	ATOM	2990	CB	LYS	R	339	3.608	12.487	-36.108	1.00	90.65	R	C
5	ATOM	2991	C	LYS	R	339	3.687	10.064	-35.124	1.00	91.59	R	C
	ATOM	2992	O	LYS	R	339	4.948	9.729	-35.171	1.00	92.23	R	O
	ATOM	2993	OXT	LYS	R	339	2.966	9.031	-34.894	1.00	92.68	R	O
	ATOM	2994	CB	ASP	L	1	45.108	47.536	19.263	1.00	55.28	L	C
	ATOM	2995	CG	ASP	L	1	43.772	47.248	19.777	1.00	57.07	L	C
10	ATOM	2996	OD1	ASP	L	1	43.684	46.206	20.486	1.00	58.59	L	O
	ATOM	2997	OD2	ASP	L	1	42.739	47.833	19.390	1.00	58.03	L	O
	ATOM	2998	C	ASP	L	1	47.516	47.071	19.380	1.00	53.88	L	C
	ATOM	2999	O	ASP	L	1	48.114	47.863	19.920	1.00	53.80	L	O
	ATOM	3000	N	ASP	L	1	45.989	46.823	21.353	1.00	54.39	L	N
15	ATOM	3001	CA	ASP	L	1	46.148	46.658	19.903	1.00	53.85	L	C
	ATOM	3002	N	ILE	L	2	48.035	46.579	18.249	1.00	53.02	L	N
	ATOM	3003	CA	ILE	L	2	49.273	47.069	17.763	1.00	51.46	L	C
	ATOM	3004	CB	ILE	L	2	49.731	46.111	16.746	1.00	51.89	L	C
	ATOM	3005	CG2	ILE	L	2	50.966	46.534	15.919	1.00	50.86	L	C
20	ATOM	3006	CG1	ILE	L	2	50.075	44.848	17.388	1.00	51.86	L	C
	ATOM	3007	CD1	ILE	L	2	50.600	43.743	16.271	1.00	52.35	L	C
	ATOM	3008	C	ILE	L	2	49.161	48.486	17.264	1.00	50.87	L	C
	ATOM	3009	O	ILE	L	2	48.216	48.806	16.492	1.00	52.29	L	O
	ATOM	3010	N	VAL	L	3	50.048	49.374	17.741	1.00	49.99	L	N
25	ATOM	3011	CA	VAL	L	3	50.093	50.795	17.349	1.00	47.23	L	C
	ATOM	3012	CB	VAL	L	3	50.385	51.693	18.564	1.00	45.72	L	C
	ATOM	3013	CG1	VAL	L	3	50.543	53.219	18.192	1.00	40.75	L	C
	ATOM	3014	CG2	VAL	L	3	49.243	51.541	19.551	1.00	44.61	L	C
	ATOM	3015	C	VAL	L	3	51.288	50.934	16.439	1.00	46.87	L	C
30	ATOM	3016	O	VAL	L	3	52.288	50.411	16.719	1.00	47.44	L	O
	ATOM	3017	N	LEU	L	4	51.115	51.549	15.306	1.00	45.47	L	N
	ATOM	3018	CA	LEU	L	4	52.177	51.740	14.342	1.00	46.51	L	C
	ATOM	3019	CB	LEU	L	4	51.794	51.273	12.801	1.00	46.37	L	C
	ATOM	3020	CG	LEU	L	4	51.205	49.853	12.683	1.00	47.87	L	C
35	ATOM	3021	CD1	LEU	L	4	50.966	49.673	11.414	1.00	47.17	L	C
	ATOM	3022	CD2	LEU	L	4	52.111	48.792	13.310	1.00	47.09	L	C
	ATOM	3023	C	LEU	L	4	52.378	53.271	14.306	1.00	45.92	L	C
	ATOM	3024	O	LEU	L	4	51.514	53.995	14.010	1.00	45.62	L	O
	ATOM	3025	N	THR	L	5	53.595	53.665	14.404	1.00	45.95	L	N
40	ATOM	3026	CA	THR	L	5	54.023	55.006	14.373	1.00	46.85	L	C
	ATOM	3027	CB	THR	L	5	54.812	55.199	15.705	1.00	46.65	L	C
	ATOM	3028	OG1	THR	L	5	53.831	54.993	16.770	1.00	47.07	L	O
	ATOM	3029	CG2	THR	L	5	55.159	56.615	15.835	1.00	45.76	L	C
	ATOM	3030	C	THR	L	5	54.846	55.321	13.123	1.00	46.19	L	C
45	ATOM	3031	O	THR	L	5	55.915	54.893	13.007	1.00	47.94	L	O
	ATOM	3032	N	GLN	L	6	54.395	56.190	12.249	1.00	45.30	L	N
	ATOM	3033	CA	GLN	L	6	55.271	56.497	11.051	1.00	44.84	L	C
	ATOM	3034	CB	GLN	L	6	54.334	56.787	9.868	1.00	44.65	L	C
	ATOM	3035	CG	GLN	L	6	53.377	55.566	9.584	1.00	42.77	L	C
50	ATOM	3036	CD	GLN	L	6	52.678	55.622	8.399	1.00	43.26	L	C
	ATOM	3037	OE1	GLN	L	6	51.527	55.138	8.442	1.00	40.72	L	O
	ATOM	3038	NE2	GLN	L	6	53.311	56.196	7.285	1.00	40.31	L	N
	ATOM	3039	C	GLN	L	6	56.164	57.684	11.332	1.00	44.60	L	C
	ATOM	3040	O	GLN	L	6	55.834	58.708	12.138	1.00	44.62	L	O
55	ATOM	3041	N	SER	L	7	57.360	57.613	10.803	1.00	44.40	L	N
	ATOM	3042	CA	SER	L	7	58.136	58.881	10.869	1.00	44.64	L	C
	ATOM	3043	CB	SER	L	7	59.139	58.836	11.990	1.00	45.02	L	C
	ATOM	3044	OG	SER	L	7	59.810	57.747	12.082	1.00	43.10	L	O
	ATOM	3045	C	SER	L	7	58.931	58.984	9.567	1.00	44.16	L	C
60	ATOM	3046	O	SER	L	7	59.211	57.952	9.121	1.00	43.07	L	O
	ATOM	3047	N	PRO	L	8	59.208	60.157	9.001	1.00	44.18	L	N

ATOM	3048	CD	PRO	L	8	59.790	60.409	7.682	1.00	42.55	L	C
ATOM	3049	CA	PRO	L	8	58.763	61.394	9.582	1.00	44.95	L	C
ATOM	3050	CB	PRO	L	8	59.465	62.429	8.780	1.00	45.54	L	C
ATOM	3051	CG	PRO	L	8	59.469	61.921	7.428	1.00	43.82	L	C
ATOM	3052	C	PRO	L	8	57.272	61.528	9.399	1.00	46.33	L	C
ATOM	3053	O	PRO	L	8	56.761	60.744	8.659	1.00	45.84	L	O
ATOM	3054	N	ALA	L	9	56.624	62.578	9.923	1.00	46.67	L	N
ATOM	3055	CA	ALA	L	9	55.199	62.817	9.692	1.00	47.31	L	C
ATOM	3056	CB	ALA	L	9	54.666	63.799	10.774	1.00	44.86	L	C
ATOM	3057	C	ALA	L	9	54.997	63.494	8.291	1.00	47.65	L	C
ATOM	3058	O	ALA	L	9	53.994	63.269	7.637	1.00	47.24	L	O
ATOM	3059	N	SER	L	10	55.954	64.256	7.850	1.00	47.39	L	N
ATOM	3060	CA	SER	L	10	55.865	64.857	6.396	1.00	47.27	L	C
ATOM	3061	CB	SER	L	10	55.188	66.124	6.377	1.00	47.86	L	C
ATOM	3062	OG	SER	L	10	55.940	67.005	7.153	1.00	52.42	L	O
ATOM	3063	C	SER	L	10	57.249	65.126	5.893	1.00	46.24	L	C
ATOM	3064	O	SER	L	10	58.220	65.199	6.713	1.00	45.57	L	O
ATOM	3065	N	LEU	L	11	57.436	65.116	4.556	1.00	45.55	L	N
ATOM	3066	CA	LEU	L	11	58.696	65.349	4.051	1.00	47.02	L	C
ATOM	3067	CB	LEU	L	11	59.677	64.273	4.174	1.00	46.19	L	C
ATOM	3068	CG	LEU	L	11	59.455	62.842	3.681	1.00	48.73	L	C
ATOM	3069	CD1	LEU	L	11	58.223	62.745	3.064	1.00	48.29	L	C
ATOM	3070	CD2	LEU	L	11	60.627	62.242	2.868	1.00	47.04	L	C
ATOM	3071	C	LEU	L	11	58.582	65.890	2.664	1.00	47.80	L	C
ATOM	3072	O	LEU	L	11	57.628	65.515	2.026	1.00	49.05	L	O
ATOM	3073	N	ALA	L	12	59.590	66.695	2.255	1.00	48.67	L	N
ATOM	3074	CA	ALA	L	12	59.682	67.388	0.926	1.00	49.18	L	C
ATOM	3075	CB	ALA	L	12	59.624	68.839	1.108	1.00	47.86	L	C
ATOM	3076	C	ALA	L	12	61.038	66.951	0.353	1.00	49.73	L	C
ATOM	3077	O	ALA	L	12	62.069	66.973	1.136	1.00	50.03	L	O
ATOM	3078	N	VAL	L	13	61.019	66.499	-0.936	1.00	49.69	L	N
ATOM	3079	CA	VAL	L	13	62.096	65.902	-1.610	1.00	49.56	L	C
ATOM	3080	CB	VAL	L	13	61.867	64.417	-1.751	1.00	50.10	L	C
ATOM	3081	CG1	VAL	L	13	63.090	63.700	-2.535	1.00	49.03	L	C
ATOM	3082	CG2	VAL	L	13	61.881	63.650	-0.385	1.00	48.49	L	C
ATOM	3083	C	VAL	L	13	62.081	66.387	-3.096	1.00	49.81	L	C
ATOM	3084	O	VAL	L	13	60.965	66.532	-3.673	1.00	48.90	L	O
ATOM	3085	N	SER	L	14	63.266	66.552	-3.698	1.00	51.08	L	N
ATOM	3086	CA	SER	L	14	63.372	67.112	-5.090	1.00	52.59	L	C
ATOM	3087	CB	SER	L	14	64.664	67.798	-5.413	1.00	53.64	L	C
ATOM	3088	OG	SER	L	14	65.034	68.809	-4.530	1.00	57.54	L	O
ATOM	3089	C	SER	L	14	63.196	66.058	-6.019	1.00	52.19	L	C
ATOM	3090	O	SER	L	14	63.395	64.859	-5.695	1.00	50.20	L	O
ATOM	3091	N	LEU	L	15	62.698	66.434	-7.134	1.00	53.27	L	N
ATOM	3092	CA	LEU	L	15	62.574	65.390	-8.237	1.00	54.53	L	C
ATOM	3093	CB	LEU	L	15	62.142	66.024	-9.524	1.00	55.40	L	C
ATOM	3094	CG	LEU	L	15	60.716	66.501	-9.429	1.00	58.56	L	C
ATOM	3095	CD1	LEU	L	15	59.911	67.289	-10.574	1.00	58.01	L	C
ATOM	3096	CD2	LEU	L	15	60.005	65.204	-9.238	1.00	60.27	L	C
ATOM	3097	C	LEU	L	15	63.914	64.654	-8.459	1.00	55.55	L	C
ATOM	3098	O	LEU	L	15	64.930	65.289	-8.375	1.00	55.36	L	O
ATOM	3099	N	GLY	L	16	63.795	63.337	-8.663	1.00	56.75	L	N
ATOM	3100	CA	GLY	L	16	64.822	62.284	-8.802	1.00	58.63	L	C
ATOM	3101	C	GLY	L	16	65.683	61.943	-7.633	1.00	60.16	L	C
ATOM	3102	O	GLY	L	16	66.674	61.253	-7.795	1.00	61.71	L	O
ATOM	3103	N	GLN	L	17	65.434	62.607	-6.519	1.00	60.61	L	N
ATOM	3104	CA	GLN	L	17	65.963	62.217	-5.216	1.00	60.86	L	C
ATOM	3105	CB	GLN	L	17	65.978	63.455	-4.328	1.00	61.98	L	C
ATOM	3106	CG	GLN	L	17	66.931	64.635	-4.734	1.00	63.16	L	C
ATOM	3107	CD	GLN	L	17	68.419	64.089	-5.008	1.00	65.17	L	C
ATOM	3108	OE1	GLN	L	17	69.148	63.567	-4.073	1.00	65.16	L	O

ATOM	3109	NE2	GLN	L	17	68.787	64.108	-6.313	1.00	64.55	L	N
ATOM	3110	C	GLN	L	17	65.173	61.036	-4.565	1.00	60.56	L	C
ATOM	3111	O	GLN	L	17	64.239	60.498	-5.052	1.00	60.18	L	O
ATOM	3112	N	ARG	L	18	65.618	60.659	-3.379	1.00	60.22	L	N
ATOM	3113	CA	ARG	L	18	65.179	59.485	-2.698	1.00	60.54	L	C
ATOM	3114	CB	ARG	L	18	66.356	58.697	-2.216	1.00	62.33	L	C
ATOM	3115	CG	ARG	L	18	65.975	57.341	-1.777	1.00	66.77	L	C
ATOM	3116	CD	ARG	L	18	67.139	56.520	-1.168	1.00	68.42	L	C
ATOM	3117	NE	ARG	L	18	67.633	57.422	-0.155	1.00	71.65	L	N
ATOM	3118	CZ	ARG	L	18	68.200	57.067	0.931	1.00	73.04	L	C
ATOM	3119	NH1	ARG	L	18	68.376	55.781	1.210	1.00	74.42	L	N
ATOM	3120	NH2	ARG	L	18	68.597	58.027	1.771	1.00	73.52	L	N
ATOM	3121	C	ARG	L	18	64.423	59.827	-1.432	1.00	59.73	L	C
ATOM	3122	O	ARG	L	18	64.878	60.597	-0.565	1.00	59.95	L	O
ATOM	3123	N	ALA	L	19	63.285	59.225	-1.304	1.00	57.66	L	N
ATOM	3124	CA	ALA	L	19	62.597	59.398	-0.115	1.00	56.97	L	C
ATOM	3125	CB	ALA	L	19	61.261	59.878	-0.465	1.00	56.41	L	C
ATOM	3126	C	ALA	L	19	62.473	58.120	0.563	1.00	56.01	L	C
ATOM	3127	O	ALA	L	19	62.181	57.057	-0.083	1.00	55.90	L	O
ATOM	3128	N	THR	L	20	62.553	58.230	1.861	1.00	54.57	L	N
ATOM	3129	CA	THR	L	20	62.530	57.145	2.729	1.00	54.71	L	C
ATOM	3130	CB	THR	L	20	63.976	56.984	3.320	1.00	55.31	L	C
ATOM	3131	OG1	THR	L	20	64.811	56.247	2.349	1.00	58.52	L	O
ATOM	3132	CG2	THR	L	20	63.997	55.982	4.450	1.00	54.15	L	C
ATOM	3133	C	THR	L	20	61.488	57.301	3.965	1.00	54.23	L	C
ATOM	3134	O	THR	L	20	61.495	58.250	4.662	1.00	55.01	L	O
ATOM	3135	N	ILE	L	21	60.594	56.353	4.184	1.00	52.55	L	N
ATOM	3136	CA	ILE	L	21	59.478	56.571	5.138	1.00	51.39	L	C
ATOM	3137	CB	ILE	L	21	58.267	56.531	4.332	1.00	51.03	L	C
ATOM	3138	CG2	ILE	L	21	57.101	56.522	5.229	1.00	50.72	L	C
ATOM	3139	CG1	ILE	L	21	58.199	57.829	3.513	1.00	50.62	L	C
ATOM	3140	CD1	ILE	L	21	56.828	57.893	2.664	1.00	51.38	L	C
ATOM	3141	C	ILE	L	21	59.550	55.393	6.102	1.00	50.89	L	C
ATOM	3142	O	ILE	L	21	59.654	54.245	5.588	1.00	50.75	L	O
ATOM	3143	N	SER	L	22	59.500	55.604	7.412	1.00	48.72	L	N
ATOM	3144	CA	SER	L	22	59.530	54.455	8.218	1.00	49.28	L	C
ATOM	3145	CB	SER	L	22	60.870	54.319	8.753	1.00	50.79	L	C
ATOM	3146	OG	SER	L	22	61.230	55.479	9.171	1.00	54.83	L	O
ATOM	3147	C	SER	L	22	58.395	54.153	9.139	1.00	48.61	L	C
ATOM	3148	O	SER	L	22	57.519	55.017	9.484	1.00	48.61	L	O
ATOM	3149	N	CYS	L	23	58.280	52.943	9.516	1.00	48.09	L	N
ATOM	3150	CA	CYS	L	23	57.217	52.634	10.437	1.00	49.40	L	C
ATOM	3151	C	CYS	L	23	57.811	51.946	11.667	1.00	49.17	L	C
ATOM	3152	O	CYS	L	23	58.420	50.962	11.568	1.00	50.55	L	O
ATOM	3153	CB	CYS	L	23	56.230	51.648	9.696	1.00	47.98	L	C
ATOM	3154	SG	CYS	L	23	54.576	51.056	10.342	1.00	52.95	L	S
ATOM	3155	N	LYS	L	24	57.261	52.210	12.742	1.00	48.85	L	N
ATOM	3156	CA	LYS	L	24	57.583	51.323	14.012	1.00	49.76	L	C
ATOM	3157	CB	LYS	L	24	58.391	52.158	14.922	1.00	50.72	L	C
ATOM	3158	CG	LYS	L	24	58.429	51.726	16.593	1.00	52.19	L	C
ATOM	3159	CD	LYS	L	24	59.897	51.577	16.954	1.00	55.36	L	C
ATOM	3160	CE	LYS	L	24	60.182	50.188	17.675	1.00	56.92	L	C
ATOM	3161	NZ	LYS	L	24	61.602	49.679	17.499	1.00	58.53	L	N
ATOM	3162	C	LYS	L	24	56.402	50.795	14.619	1.00	49.31	L	C
ATOM	3163	O	LYS	L	24	55.435	51.454	14.980	1.00	49.16	L	O
ATOM	3164	N	ALA	L	25	56.376	49.572	14.892	1.00	49.30	L	N
ATOM	3165	CA	ALA	L	25	55.234	49.028	15.546	1.00	49.48	L	C
ATOM	3166	CB	ALA	L	25	54.953	47.724	14.762	1.00	47.96	L	C
ATOM	3167	C	ALA	L	25	55.445	48.694	17.022	1.00	50.20	L	C
ATOM	3168	O	ALA	L	25	56.480	48.267	17.399	1.00	49.44	L	O
ATOM	3169	N	SER	L	26	54.398	48.740	17.797	1.00	51.08	L	N

ATOM	3170	CA	SER	L	26	54.567	48.567	19.242	1.00	53.13	L	C
ATOM	3171	CB	SER	L	26	53.332	49.105	19.920	1.00	52.28	L	C
ATOM	3172	OG	SER	L	26	52.243	48.435	19.292	1.00	52.65	L	O
ATOM	3173	C	SER	L	26	54.774	47.175	19.632	1.00	55.40	L	C
ATOM	3174	O	SER	L	26	55.013	46.923	20.721	1.00	55.86	L	O
ATOM	3175	N	GLU	L	27	54.637	46.243	18.729	1.00	56.96	L	N
ATOM	3176	CA	GLU	L	27	54.838	44.861	18.928	1.00	57.52	L	C
ATOM	3177	CB	GLU	L	27	53.453	44.334	19.153	1.00	60.89	L	C
ATOM	3178	CG	GLU	L	27	53.153	43.582	20.429	1.00	66.03	L	C
ATOM	3179	CD	GLU	L	27	52.824	44.531	21.585	1.00	70.45	L	C
ATOM	3180	OE1	GLU	L	27	51.607	44.914	21.710	1.00	73.02	L	O
ATOM	3181	OE2	GLU	L	27	53.793	44.893	22.334	1.00	72.02	L	O
ATOM	3182	C	GLU	L	27	55.191	44.233	17.624	1.00	56.33	L	C
ATOM	3183	O	GLU	L	27	54.884	44.731	16.612	1.00	54.86	L	O
ATOM	3184	N	SER	L	28	55.715	43.027	17.631	1.00	56.67	L	N
ATOM	3185	CA	SER	L	28	56.161	42.382	16.351	1.00	55.27	L	C
ATOM	3186	CB	SER	L	28	56.723	41.077	16.656	1.00	53.96	L	C
ATOM	3187	OG	SER	L	28	57.529	40.535	15.622	1.00	56.49	L	O
ATOM	3188	C	SER	L	28	55.000	42.100	15.481	1.00	54.43	L	C
ATOM	3189	O	SER	L	28	54.124	41.630	15.977	1.00	54.12	L	O
ATOM	3190	N	VAL	L	29	55.162	42.207	14.141	1.00	53.99	L	N
ATOM	3191	CA	VAL	L	29	54.170	41.736	13.189	1.00	53.99	L	C
ATOM	3192	CB	VAL	L	29	53.760	42.905	12.246	1.00	52.07	L	C
ATOM	3193	CG1	VAL	L	29	53.450	44.030	13.131	1.00	50.61	L	C
ATOM	3194	CG2	VAL	L	29	54.794	43.332	11.216	1.00	50.81	L	C
ATOM	3195	C	VAL	L	29	54.684	40.567	12.449	1.00	55.43	L	C
ATOM	3196	O	VAL	L	29	54.029	40.128	11.565	1.00	55.80	L	O
ATOM	3197	N	ASP	L	30A	55.823	39.964	12.809	1.00	55.85	L	N
ATOM	3198	CA	ASP	L	30A	56.207	38.724	12.097	1.00	56.24	L	C
ATOM	3199	CB	ASP	L	30A	57.610	38.437	12.307	1.00	57.40	L	C
ATOM	3200	CG	ASP	L	30A	58.540	39.376	11.585	1.00	60.95	L	C
ATOM	3201	OD1	ASP	L	30A	59.709	39.192	11.915	1.00	63.22	L	O
ATOM	3202	OD2	ASP	L	30A	58.262	40.297	10.706	1.00	60.76	L	O
ATOM	3203	C	ASP	L	30A	55.441	37.453	12.548	1.00	55.44	L	C
ATOM	3204	O	ASP	L	30A	55.032	37.344	13.692	1.00	54.11	L	O
ATOM	3205	N	ASN	L	30B	55.172	36.561	11.637	1.00	56.01	L	N
ATOM	3206	CA	ASN	L	30B	54.376	35.290	11.874	1.00	56.75	L	C
ATOM	3207	CB	ASN	L	30B	53.122	35.263	11.102	1.00	57.19	L	C
ATOM	3208	CG	ASN	L	30B	52.338	33.978	11.310	1.00	57.97	L	C
ATOM	3209	OD1	ASN	L	30B	52.062	33.581	12.461	1.00	56.40	L	O
ATOM	3210	ND2	ASN	L	30B	52.051	33.231	10.119	1.00	56.26	L	N
ATOM	3211	C	ASN	L	30B	55.197	34.018	11.810	1.00	57.63	L	C
ATOM	3212	O	ASN	L	30B	55.549	33.299	12.907	1.00	59.38	L	O
ATOM	3213	N	TYR	L	30C	55.972	33.851	10.826	1.00	58.12	L	N
ATOM	3214	CA	TYR	L	30C	56.966	32.728	11.255	1.00	57.56	L	C
ATOM	3215	CB	TYR	L	30C	56.393	31.318	10.871	1.00	59.59	L	C
ATOM	3216	CG	TYR	L	30C	55.804	30.433	11.997	1.00	62.38	L	C
ATOM	3217	CD1	TYR	L	30C	56.575	29.521	12.651	1.00	63.98	L	C
ATOM	3218	CE1	TYR	L	30C	56.062	28.868	13.663	1.00	65.37	L	C
ATOM	3219	CD2	TYR	L	30C	54.516	30.530	12.335	1.00	62.73	L	C
ATOM	3220	CE2	TYR	L	30C	53.994	29.934	13.359	1.00	65.31	L	C
ATOM	3221	CZ	TYR	L	30C	54.751	29.057	14.043	1.00	66.28	L	C
ATOM	3222	OH	TYR	L	30C	54.177	28.331	15.161	1.00	67.53	L	O
ATOM	3223	C	TYR	L	30C	58.014	32.886	10.322	1.00	56.78	L	C
ATOM	3224	O	TYR	L	30C	57.979	32.197	9.221	1.00	56.52	L	O
ATOM	3225	N	GLY	L	30D	58.707	33.978	10.516	1.00	55.18	L	N
ATOM	3226	CA	GLY	L	30D	59.595	34.468	9.451	1.00	53.84	L	C
ATOM	3227	C	GLY	L	30D	58.974	35.386	8.429	1.00	53.10	L	C
ATOM	3228	O	GLY	L	30D	59.696	35.905	7.594	1.00	52.98	L	O
ATOM	3229	N	LYS	L	30E	57.655	35.574	8.425	1.00	52.44	L	N
ATOM	3230	CA	LYS	L	30E	57.221	36.521	7.395	1.00	51.96	L	C

	ATOM	3231	CB	LYS	L	30E	56.282	35.893	6.222	1.00	53.54	L	C
	ATOM	3232	CG	LYS	L	30E	56.499	34.508	5.741	1.00	52.86	L	C
	ATOM	3233	CD	LYS	L	30E	55.680	33.333	6.760	1.00	52.44	L	C
	ATOM	3234	CE	LYS	L	30E	56.238	32.000	6.799	1.00	53.21	L	C
5	ATOM	3235	NZ	LYS	L	30E	55.917	30.965	7.780	1.00	52.68	L	N
	ATOM	3236	C	LYS	L	30E	56.619	37.756	8.105	1.00	50.72	L	C
	ATOM	3237	O	LYS	L	30E	56.010	37.576	9.096	1.00	51.31	L	O
	ATOM	3238	N	SER	L	31	56.795	38.955	7.602	1.00	47.57	L	N
	ATOM	3239	CA	SER	L	31	56.368	40.158	8.308	1.00	46.85	L	C
10	ATOM	3240	CB	SER	L	31	57.408	41.265	8.194	1.00	47.13	L	C
	ATOM	3241	OG	SER	L	31	58.776	40.786	8.489	1.00	49.94	L	O
	ATOM	3242	C	SER	L	31	55.073	40.596	7.675	1.00	46.30	L	C
	ATOM	3243	O	SER	L	31	55.007	40.931	6.496	1.00	47.15	L	O
	ATOM	3244	N	LEU	L	32	54.082	40.732	8.542	1.00	45.54	L	N
15	ATOM	3245	CA	LEU	L	32	52.707	40.890	8.042	1.00	44.95	L	C
	ATOM	3246	CB	LEU	L	32	51.658	40.126	8.959	1.00	43.45	L	C
	ATOM	3247	CG	LEU	L	32	51.951	38.635	9.078	1.00	42.44	L	C
	ATOM	3248	CD1	LEU	L	32	50.943	37.801	9.742	1.00	40.43	L	C
	ATOM	3249	CD2	LEU	L	32	52.063	38.084	7.588	1.00	40.35	L	C
20	ATOM	3250	C	LEU	L	32	52.494	42.421	8.128	1.00	45.90	L	C
	ATOM	3251	O	LEU	L	32	51.620	42.800	8.861	1.00	45.96	L	O
	ATOM	3252	N	MET	L	33	53.135	43.182	7.215	1.00	44.68	L	N
	ATOM	3253	CA	MET	L	33	53.114	44.629	7.195	1.00	46.62	L	C
	ATOM	3254	CB	MET	L	33	54.453	45.212	7.636	1.00	48.40	L	C
25	ATOM	3255	CG	MET	L	33	54.706	46.723	7.347	1.00	51.53	L	C
	ATOM	3256	SD	MET	L	33	53.565	47.476	8.816	1.00	57.60	L	S
	ATOM	3257	CE	MET	L	33	54.234	47.188	10.430	1.00	55.27	L	C
	ATOM	3258	C	MET	L	33	52.978	44.924	5.655	1.00	45.90	L	C
	ATOM	3259	O	MET	L	33	53.599	44.269	4.780	1.00	45.80	L	O
30	ATOM	3260	N	HIS	L	34	52.113	45.875	5.332	1.00	43.80	L	N
	ATOM	3261	CA	HIS	L	34	51.930	46.321	3.910	1.00	43.27	L	C
	ATOM	3262	CB	HIS	L	34	50.514	45.888	3.633	1.00	42.70	L	C
	ATOM	3263	CG	HIS	L	34	50.190	44.505	4.049	1.00	41.65	L	C
	ATOM	3264	CD2	HIS	L	34	49.217	44.047	4.864	1.00	44.21	L	C
35	ATOM	3265	ND1	HIS	L	34	50.838	43.400	3.574	1.00	42.76	L	N
	ATOM	3266	CE1	HIS	L	34	50.297	42.330	4.140	1.00	43.50	L	C
	ATOM	3267	NE2	HIS	L	34	49.304	42.711	4.907	1.00	42.79	L	N
	ATOM	3268	C	HIS	L	34	51.890	47.798	3.859	1.00	42.81	L	C
	ATOM	3269	O	HIS	L	34	51.722	48.488	4.923	1.00	44.23	L	O
40	ATOM	3270	N	TRP	L	35	52.117	48.370	2.676	1.00	41.84	L	N
	ATOM	3271	CA	TRP	L	35	52.202	49.815	2.481	1.00	41.57	L	C
	ATOM	3272	CB	TRP	L	35	53.559	50.142	2.025	1.00	40.46	L	C
	ATOM	3273	CG	TRP	L	35	54.525	50.108	3.172	1.00	41.35	L	C
	ATOM	3274	CD2	TRP	L	35	54.944	51.224	3.971	1.00	41.73	L	C
45	ATOM	3275	CE2	TRP	L	35	56.052	50.760	4.800	1.00	41.68	L	C
	ATOM	3276	CE3	TRP	L	35	54.491	52.502	4.165	1.00	40.10	L	C
	ATOM	3277	CD1	TRP	L	35	55.573	49.170	3.306	1.00	41.34	L	C
	ATOM	3278	NE1	TRP	L	35	56.439	49.548	4.300	1.00	41.83	L	N
	ATOM	3279	CZ2	TRP	L	35	56.704	51.592	5.736	1.00	41.45	L	C
50	ATOM	3280	CZ3	TRP	L	35	55.082	53.332	5.309	1.00	41.11	L	C
	ATOM	3281	CH2	TRP	L	35	56.169	52.825	6.002	1.00	41.44	L	C
	ATOM	3282	C	TRP	L	35	51.210	50.279	1.457	1.00	42.23	L	C
	ATOM	3283	O	TRP	L	35	51.012	49.567	0.372	1.00	43.53	L	O
	ATOM	3284	N	TYR	L	36	50.489	51.384	1.725	1.00	40.06	L	N
55	ATOM	3285	CA	TYR	L	36	49.548	51.881	0.769	1.00	39.58	L	C
	ATOM	3286	CB	TYR	L	36	48.068	51.823	1.298	1.00	38.10	L	C
	ATOM	3287	CG	TYR	L	36	47.633	50.524	1.872	1.00	39.65	L	C
	ATOM	3288	CD1	TYR	L	36	48.018	50.099	3.040	1.00	37.47	L	C
	ATOM	3289	CE1	TYR	L	36	47.728	48.721	3.438	1.00	37.52	L	C
60	ATOM	3290	CD2	TYR	L	36	47.005	49.647	1.020	1.00	36.92	L	C
	ATOM	3291	CE2	TYR	L	36	46.662	48.284	1.426	1.00	36.87	L	C

	ATOM	3292	CZ	TYR	L	36	47.070	47.850	2.651	1.00	37.75	L	C
	ATOM	3293	OH	TYR	L	36	46.782	46.544	3.043	1.00	39.29	L	O
	ATOM	3294	C	TYR	L	36	49.883	53.400	0.509	1.00	40.31	L	C
	ATOM	3295	O	TYR	L	36	50.509	54.086	1.359	1.00	38.66	L	O
5	ATOM	3296	N	GLN	L	37	49.535	53.818	-0.725	1.00	39.96	L	N
	ATOM	3297	CA	GLN	L	37	49.704	55.158	-1.255	1.00	40.83	L	C
	ATOM	3298	CB	GLN	L	37	50.186	55.133	-2.658	1.00	39.79	L	C
	ATOM	3299	CG	GLN	L	37	50.494	56.431	-3.274	1.00	42.07	L	C
	ATOM	3300	CD	GLN	L	37	51.024	56.484	-4.754	1.00	44.50	L	C
10	ATOM	3301	OE1	GLN	L	37	50.377	56.066	-5.645	1.00	47.36	L	O
	ATOM	3302	NE2	GLN	L	37	52.180	57.013	-4.930	1.00	43.45	L	N
	ATOM	3303	C	GLN	L	37	48.324	55.765	-1.490	1.00	40.88	L	C
	ATOM	3304	O	GLN	L	37	47.497	55.064	-2.111	1.00	39.82	L	O
	ATOM	3305	N	GLN	L	38	48.031	56.962	-0.927	1.00	41.63	L	N
15	ATOM	3306	CA	GLN	L	38	46.767	57.644	-1.200	1.00	42.50	L	C
	ATOM	3307	CB	GLN	L	38	45.989	57.803	0.033	1.00	42.26	L	C
	ATOM	3308	CG	GLN	L	38	44.570	58.433	-0.190	1.00	41.96	L	C
	ATOM	3309	CD	GLN	L	38	43.661	58.451	1.068	1.00	42.42	L	C
	ATOM	3310	OE1	GLN	L	38	44.153	58.584	2.191	1.00	40.92	L	O
20	ATOM	3311	NE2	GLN	L	38	42.275	58.205	0.809	1.00	41.03	L	N
	ATOM	3312	C	GLN	L	38	47.132	59.057	-1.704	1.00	43.48	L	C
	ATOM	3313	O	GLN	L	38	47.433	59.962	-0.961	1.00	43.75	L	O
	ATOM	3314	N	LYS	L	39	47.003	59.229	-2.988	1.00	45.16	L	N
	ATOM	3315	CA	LYS	L	39	47.000	60.502	-3.632	1.00	46.88	L	C
25	ATOM	3316	CB	LYS	L	39	47.079	60.354	-5.121	1.00	48.09	L	C
	ATOM	3317	CG	LYS	L	39	48.104	59.370	-5.531	1.00	50.07	L	C
	ATOM	3318	CD	LYS	L	39	48.627	59.508	-6.952	1.00	53.52	L	C
	ATOM	3319	CE	LYS	L	39	48.304	58.426	-7.919	1.00	56.25	L	C
	ATOM	3320	NZ	LYS	L	39	49.534	58.012	-8.719	1.00	56.24	L	N
30	ATOM	3321	C	LYS	L	39	45.820	61.324	-3.269	1.00	47.86	L	C
	ATOM	3322	O	LYS	L	39	44.811	60.782	-2.807	1.00	47.17	L	O
	ATOM	3323	N	PRO	L	40	45.967	62.651	-3.375	1.00	48.23	L	N
	ATOM	3324	CD	PRO	L	40	47.119	63.387	-3.934	1.00	48.78	L	C
	ATOM	3325	CA	PRO	L	40	44.892	63.548	-3.036	1.00	48.38	L	C
35	ATOM	3326	CB	PRO	L	40	45.487	64.858	-3.472	1.00	49.68	L	C
	ATOM	3327	CG	PRO	L	40	46.955	64.694	-3.202	1.00	50.16	L	C
	ATOM	3328	C	PRO	L	40	43.592	63.400	-3.829	1.00	48.85	L	C
	ATOM	3329	O	PRO	L	40	43.605	63.329	-5.042	1.00	48.79	L	O
	ATOM	3330	N	GLY	L	41	42.472	63.239	-3.114	1.00	49.59	L	N
40	ATOM	3331	CA	GLY	L	41	41.156	62.982	-3.786	1.00	50.02	L	C
	ATOM	3332	C	GLY	L	41	40.830	61.537	-4.182	1.00	50.71	L	C
	ATOM	3333	O	GLY	L	41	39.765	61.195	-4.532	1.00	50.67	L	O
	ATOM	3334	N	GLN	L	42	41.824	60.716	-4.258	1.00	50.87	L	N
	ATOM	3335	CA	GLN	L	42	41.796	59.300	-4.507	1.00	51.75	L	C
45	ATOM	3336	CB	GLN	L	42	43.039	59.072	-5.281	1.00	52.91	L	C
	ATOM	3337	CG	GLN	L	42	42.948	59.658	-6.822	1.00	55.22	L	C
	ATOM	3338	CD	GLN	L	42	44.150	59.256	-7.607	1.00	56.68	L	C
	ATOM	3339	OE1	GLN	L	42	44.755	60.170	-8.261	1.00	58.21	L	O
	ATOM	3340	NE2	GLN	L	42	44.623	57.918	-7.519	1.00	57.44	L	N
50	ATOM	3341	C	GLN	L	42	41.764	58.317	-3.141	1.00	50.97	L	C
	ATOM	3342	O	GLN	L	42	41.808	58.707	-2.045	1.00	51.08	L	O
	ATOM	3343	N	SER	L	43	41.523	57.062	-3.326	1.00	49.35	L	N
	ATOM	3344	CA	SER	L	43	41.337	56.114	-2.324	1.00	48.11	L	C
	ATOM	3345	CB	SER	L	43	40.209	55.257	-2.712	1.00	50.00	L	C
55	ATOM	3346	OG	SER	L	43	40.679	54.393	-3.771	1.00	52.62	L	O
	ATOM	3347	C	SER	L	43	42.800	55.404	-2.199	1.00	46.70	L	C
	ATOM	3348	O	SER	L	43	43.674	55.641	-3.047	1.00	45.07	L	O
	ATOM	3349	N	PRO	L	44	43.118	54.829	-1.039	1.00	46.29	L	N
	ATOM	3350	CD	PRO	L	44	42.200	54.695	0.070	1.00	47.19	L	C
60	ATOM	3351	CA	PRO	L	44	44.345	54.129	-0.843	1.00	46.37	L	C
	ATOM	3352	CB	PRO	L	44	44.180	53.413	0.387	1.00	46.52	L	C

	ATOM	3353	CG	PRO	L	44	43.084	54.301	1.176	1.00	47.07	L	C
	ATOM	3354	C	PRO	L	44	44.586	53.048	-1.945	1.00	46.83	L	C
	ATOM	3355	O	PRO	L	44	43.649	52.520	-2.368	1.00	47.16	L	O
	ATOM	3356	N	LYS	L	45	45.807	52.795	-2.306	1.00	46.19	L	N
5	ATOM	3357	CA	LYS	L	45	46.236	51.816	-3.267	1.00	47.13	L	C
	ATOM	3358	CB	LYS	L	45	46.560	52.566	-4.574	1.00	46.21	L	C
	ATOM	3359	CG	LYS	L	45	47.534	51.931	-5.593	1.00	49.79	L	C
	ATOM	3360	CD	LYS	L	45	47.328	52.729	-7.044	1.00	53.61	L	C
	ATOM	3361	CE	LYS	L	45	48.384	52.372	-8.178	1.00	55.08	L	C
10	ATOM	3362	NZ	LYS	L	45	48.007	51.167	-9.072	1.00	59.14	L	N
	ATOM	3363	C	LYS	L	45	47.439	51.035	-2.780	1.00	46.15	L	C
	ATOM	3364	O	LYS	L	45	48.367	51.601	-2.208	1.00	47.27	L	O
	ATOM	3365	N	LEU	L	46	47.439	49.780	-3.087	1.00	45.46	L	N
	ATOM	3366	CA	LEU	L	46	48.420	48.871	-2.462	1.00	44.63	L	C
15	ATOM	3367	CB	LEU	L	46	47.967	47.354	-2.414	1.00	43.94	L	C
	ATOM	3368	CG	LEU	L	46	49.091	46.349	-1.995	1.00	44.18	L	C
	ATOM	3369	CD1	LEU	L	46	49.245	46.386	-0.548	1.00	41.71	L	C
	ATOM	3370	CD2	LEU	L	46	48.519	44.936	-2.299	1.00	43.61	L	C
	ATOM	3371	C	LEU	L	46	49.719	48.986	-3.187	1.00	44.28	L	C
20	ATOM	3372	O	LEU	L	46	49.784	48.755	-4.415	1.00	44.85	L	O
	ATOM	3373	N	LEU	L	47	50.822	49.188	-2.491	1.00	43.91	L	N
	ATOM	3374	CA	LEU	L	47	52.117	49.289	-3.171	1.00	44.11	L	C
	ATOM	3375	CB	LEU	L	47	52.822	50.500	-2.533	1.00	44.54	L	C
	ATOM	3376	CG	LEU	L	47	52.343	51.886	-2.865	1.00	45.79	L	C
25	ATOM	3377	CD1	LEU	L	47	53.215	52.805	-1.949	1.00	43.54	L	C
	ATOM	3378	CD2	LEU	L	47	52.645	52.217	-4.259	1.00	44.99	L	C
	ATOM	3379	C	LEU	L	47	52.920	48.061	-2.889	1.00	43.22	L	C
	ATOM	3380	O	LEU	L	47	53.660	47.582	-3.804	1.00	43.02	L	O
	ATOM	3381	N	ILE	L	48	53.024	47.708	-1.562	1.00	42.64	L	N
30	ATOM	3382	CA	ILE	L	48	53.893	46.659	-1.077	1.00	44.20	L	C
	ATOM	3383	CB	ILE	L	48	55.148	47.296	-0.472	1.00	44.06	L	C
	ATOM	3384	CG2	ILE	L	48	56.083	46.170	-0.035	1.00	42.39	L	C
	ATOM	3385	CG1	ILE	L	48	55.895	48.103	-1.540	1.00	43.43	L	C
	ATOM	3386	CD1	ILE	L	48	57.123	47.375	-2.060	1.00	45.86	L	C
35	ATOM	3387	C	ILE	L	48	53.169	45.824	-0.013	1.00	44.86	L	C
	ATOM	3388	O	ILE	L	48	52.713	46.305	0.993	1.00	44.44	L	O
	ATOM	3389	N	TYR	L	49	53.069	44.523	-0.336	1.00	43.51	L	N
	ATOM	3390	CA	TYR	L	49	52.544	43.575	0.646	1.00	44.25	L	C
	ATOM	3391	CB	TYR	L	49	51.447	42.725	-0.007	1.00	44.43	L	C
40	ATOM	3392	CG	TYR	L	49	51.998	41.866	-1.095	1.00	47.66	L	C
	ATOM	3393	CD1	TYR	L	49	52.302	40.531	-0.831	1.00	48.71	L	C
	ATOM	3394	CE1	TYR	L	49	52.574	39.656	-1.873	1.00	48.62	L	C
	ATOM	3395	CD2	TYR	L	49	51.996	42.319	-2.415	1.00	46.74	L	C
	ATOM	3396	CE2	TYR	L	49	52.278	41.447	-3.456	1.00	47.16	L	C
45	ATOM	3397	CZ	TYR	L	49	52.567	40.122	-3.189	1.00	47.68	L	C
	ATOM	3398	OH	TYR	L	49	52.841	39.246	-4.221	1.00	49.06	L	O
	ATOM	3399	C	TYR	L	49	53.626	42.684	1.269	1.00	44.97	L	C
	ATOM	3400	O	TYR	L	49	54.695	42.452	0.719	1.00	44.07	L	O
	ATOM	3401	N	ARG	L	50	53.318	42.219	2.485	1.00	44.80	L	N
50	ATOM	3402	CA	ARG	L	50	54.318	41.356	3.209	1.00	46.52	L	C
	ATOM	3403	CB	ARG	L	50	54.263	39.963	2.609	1.00	47.86	L	C
	ATOM	3404	CG	ARG	L	50	54.273	38.890	3.685	1.00	49.22	L	C
	ATOM	3405	CD	ARG	L	50	54.342	37.481	3.085	1.00	49.53	L	C
	ATOM	3406	NE	ARG	L	50	53.536	37.403	1.865	1.00	51.67	L	N
55	ATOM	3407	CZ	ARG	L	50	53.801	36.394	1.017	1.00	52.68	L	C
	ATOM	3408	NH1	ARG	L	50	54.765	35.533	1.290	1.00	53.20	L	N
	ATOM	3409	NH2	ARG	L	50	53.036	36.226	-0.066	1.00	52.22	L	N
	ATOM	3410	C	ARG	L	50	55.780	41.844	3.283	1.00	46.28	L	C
	ATOM	3411	O	ARG	L	50	56.760	41.090	3.136	1.00	48.61	L	O
60	ATOM	3412	N	ALA	L	51	55.831	43.166	3.535	1.00	45.86	L	N
	ATOM	3413	CA	ALA	L	51	56.996	44.060	3.797	1.00	44.82	L	C

	ATOM	3414	CB	ALA	L	51	57.806	43.478	4.954	1.00	45.10	L	C
	ATOM	3415	C	ALA	L	51	58.054	44.322	2.684	1.00	46.14	L	C
	ATOM	3416	O	ALA	L	51	58.836	45.259	2.765	1.00	47.35	L	O
	ATOM	3417	N	SER	L	52	58.146	43.438	1.650	1.00	44.64	L	N
5	ATOM	3418	CA	SER	L	52	59.178	43.624	0.583	1.00	45.96	L	C
	ATOM	3419	CB	SER	L	52	60.482	42.894	0.955	1.00	42.75	L	C
	ATOM	3420	OG	SER	L	52	60.249	41.539	1.329	1.00	43.62	L	O
	ATOM	3421	C	SER	L	52	58.718	43.186	-0.849	1.00	47.19	L	C
	ATOM	3422	O	SER	L	52	59.467	43.297	-1.810	1.00	48.38	L	O
10	ATOM	3423	N	ASN	L	53	57.403	42.790	-0.932	1.00	49.20	L	N
	ATOM	3424	CA	ASN	L	53	56.750	42.272	-2.150	1.00	51.26	L	C
	ATOM	3425	CB	ASN	L	53	55.792	41.115	-1.787	1.00	52.80	L	C
	ATOM	3426	CG	ASN	L	53	56.547	39.817	-1.926	1.00	55.58	L	C
	ATOM	3427	OD1	ASN	L	53	57.180	39.538	-2.944	1.00	59.69	L	O
15	ATOM	3428	ND2	ASN	L	53	56.499	39.018	-0.851	1.00	55.79	L	N
	ATOM	3429	C	ASN	L	53	55.998	43.325	-2.976	1.00	51.90	L	C
	ATOM	3430	O	ASN	L	53	54.932	43.818	-2.633	1.00	53.16	L	O
	ATOM	3431	N	LEU	L	54	56.626	43.651	-4.141	1.00	52.01	L	N
	ATOM	3432	CA	LEU	L	54	56.044	44.648	-5.060	1.00	53.38	L	C
20	ATOM	3433	CB	LEU	L	54	57.080	44.978	-6.148	1.00	54.15	L	C
	ATOM	3434	CG	LEU	L	54	56.676	46.173	-7.022	1.00	54.46	L	C
	ATOM	3435	CD1	LEU	L	54	56.434	47.437	-6.202	1.00	55.09	L	C
	ATOM	3436	CD2	LEU	L	54	57.738	46.540	-8.068	1.00	56.24	L	C
	ATOM	3437	C	LEU	L	54	54.749	44.151	-5.720	1.00	53.72	L	C
25	ATOM	3438	O	LEU	L	54	54.701	43.107	-6.358	1.00	54.45	L	O
	ATOM	3439	N	GLU	L	55	53.626	44.859	-5.601	1.00	53.51	L	N
	ATOM	3440	CA	GLU	L	55	52.368	44.478	-6.116	1.00	55.11	L	C
	ATOM	3441	CB	GLU	L	55	51.294	45.404	-5.592	1.00	55.21	L	C
	ATOM	3442	CG	GLU	L	55	49.971	45.205	-6.300	1.00	55.64	L	C
30	ATOM	3443	CD	GLU	L	55	49.169	43.969	-5.835	1.00	57.19	L	C
	ATOM	3444	OE1	GLU	L	55	49.769	43.078	-5.176	1.00	57.60	L	O
	ATOM	3445	OE2	GLU	L	55	47.885	43.884	-6.132	1.00	56.57	L	O
	ATOM	3446	C	GLU	L	55	52.360	44.662	-7.650	1.00	55.90	L	C
	ATOM	3447	O	GLU	L	55	52.870	45.532	-8.219	1.00	55.81	L	O
35	ATOM	3448	N	SER	L	56	51.750	43.781	-8.303	1.00	56.80	L	N
	ATOM	3449	CA	SER	L	56	51.755	43.837	-9.703	1.00	58.42	L	C
	ATOM	3450	CB	SER	L	56	50.933	42.610	-10.158	1.00	58.40	L	C
	ATOM	3451	OG	SER	L	56	50.926	42.846	-11.533	1.00	62.54	L	O
	ATOM	3452	C	SER	L	56	51.163	45.190	-10.225	1.00	57.30	L	C
40	ATOM	3453	O	SER	L	56	50.186	45.761	-9.731	1.00	57.56	L	O
	ATOM	3454	N	GLY	L	57	51.874	45.796	-11.127	1.00	57.37	L	N
	ATOM	3455	CA	GLY	L	57	51.424	47.049	-11.688	1.00	56.96	L	C
	ATOM	3456	C	GLY	L	57	52.204	48.193	-11.119	1.00	56.79	L	C
	ATOM	3457	O	GLY	L	57	52.157	49.231	-11.753	1.00	58.79	L	O
45	ATOM	3458	N	ILE	L	58	52.895	48.026	-9.960	1.00	55.41	L	N
	ATOM	3459	CA	ILE	L	58	53.508	49.177	-9.257	1.00	53.96	L	C
	ATOM	3460	CB	ILE	L	58	53.534	48.875	-7.833	1.00	51.43	L	C
	ATOM	3461	CG2	ILE	L	58	54.205	49.855	-7.156	1.00	50.04	L	C
	ATOM	3462	CG1	ILE	L	58	52.121	48.769	-7.308	1.00	51.25	L	C
50	ATOM	3463	CD1	ILE	L	58	51.212	50.082	-7.601	1.00	50.72	L	C
	ATOM	3464	C	ILE	L	58	54.878	49.294	-9.751	1.00	54.15	L	C
	ATOM	3465	O	ILE	L	58	55.493	48.283	-9.888	1.00	55.21	L	O
	ATOM	3466	N	PRO	L	59	55.399	50.473	-10.051	1.00	53.53	L	N
	ATOM	3467	CD	PRO	L	59	54.706	51.752	-10.212	1.00	52.32	L	C
55	ATOM	3468	CA	PRO	L	59	56.800	50.603	-10.428	1.00	53.60	L	C
	ATOM	3469	CB	PRO	L	59	56.943	52.058	-10.742	1.00	51.95	L	C
	ATOM	3470	CG	PRO	L	59	55.586	52.664	-10.254	1.00	51.28	L	C
	ATOM	3471	C	PRO	L	59	57.867	50.269	-9.460	1.00	54.47	L	C
	ATOM	3472	O	PRO	L	59	57.709	50.423	-8.128	1.00	55.96	L	O
60	ATOM	3473	N	ALA	L	60	58.970	49.767	-10.063	1.00	54.31	L	N
	ATOM	3474	CA	ALA	L	60	60.165	49.330	-9.309	1.00	54.02	L	C

ATOM	3475	CB	ALA	L	60	61.266	48.623	-10.235	1.00	53.41	L	C
ATOM	3476	C	ALA	L	60	60.854	50.494	-8.512	1.00	53.88	L	C
ATOM	3477	O	ALA	L	60	61.789	50.225	-7.714	1.00	53.56	L	O
ATOM	3478	N	ARG	L	61	60.503	51.752	-8.815	1.00	53.46	L	N
ATOM	3479	CA	ARG	L	61	60.979	52.803	-7.943	1.00	52.97	L	C
ATOM	3480	CB	ARG	L	61	60.491	54.163	-8.394	1.00	54.39	L	C
ATOM	3481	CG	ARG	L	61	60.284	54.239	-9.802	1.00	55.57	L	C
ATOM	3482	CD	ARG	L	61	59.850	55.654	-10.234	1.00	58.75	L	C
ATOM	3483	NE	ARG	L	61	58.422	55.955	-10.333	1.00	60.43	L	N
ATOM	3484	CZ	ARG	L	61	57.733	56.569	-9.387	1.00	61.42	L	C
ATOM	3485	NH1	ARG	L	61	58.344	56.916	-8.329	1.00	61.49	L	N
ATOM	3486	NH2	ARG	L	61	56.475	56.905	-9.543	1.00	60.78	L	N
ATOM	3487	C	ARG	L	61	60.565	52.561	-6.456	1.00	51.50	L	C
ATOM	3488	O	ARG	L	61	61.109	53.120	-5.595	1.00	51.57	L	O
ATOM	3489	N	PHE	L	62	59.529	51.811	-6.212	1.00	50.00	L	N
ATOM	3490	CA	PHE	L	62	59.032	51.632	-4.935	1.00	49.93	L	C
ATOM	3491	CB	PHE	L	62	57.467	51.469	-4.961	1.00	47.93	L	C
ATOM	3492	CG	PHE	L	62	56.737	52.754	-5.178	1.00	48.92	L	C
ATOM	3493	CD1	PHE	L	62	56.522	53.651	-4.150	1.00	48.20	L	C
ATOM	3494	CD2	PHE	L	62	56.365	53.122	-6.376	1.00	48.67	L	C
ATOM	3495	CE1	PHE	L	62	55.873	54.853	-4.358	1.00	48.82	L	C
ATOM	3496	CE2	PHE	L	62	55.859	54.350	-6.619	1.00	49.21	L	C
ATOM	3497	CZ	PHE	L	62	55.528	55.210	-5.657	1.00	47.07	L	C
ATOM	3498	C	PHE	L	62	59.627	50.305	-4.485	1.00	50.05	L	C
ATOM	3499	O	PHE	L	62	59.369	49.281	-5.181	1.00	51.12	L	O
ATOM	3500	N	SER	L	63	60.115	50.244	-3.287	1.00	48.79	L	N
ATOM	3501	CA	SER	L	63	60.627	49.031	-2.616	1.00	49.33	L	C
ATOM	3502	CB	SER	L	63	62.221	48.902	-2.650	1.00	48.44	L	C
ATOM	3503	OG	SER	L	63	62.867	50.204	-2.559	1.00	52.96	L	O
ATOM	3504	C	SER	L	63	60.387	49.146	-1.139	1.00	49.52	L	C
ATOM	3505	O	SER	L	63	60.260	50.204	-0.588	1.00	50.14	L	O
ATOM	3506	N	GLY	L	64	60.505	48.022	-0.459	1.00	49.55	L	N
ATOM	3507	CA	GLY	L	64	60.236	47.981	0.966	1.00	49.92	L	C
ATOM	3508	C	GLY	L	64	61.159	46.980	1.657	1.00	50.31	L	C
ATOM	3509	O	GLY	L	64	61.708	46.063	1.050	1.00	51.49	L	O
ATOM	3510	N	SER	L	65	61.365	47.192	2.967	1.00	50.12	L	N
ATOM	3511	CA	SER	L	65	62.186	46.237	3.707	1.00	51.65	L	C
ATOM	3512	CB	SER	L	65	63.669	46.486	3.393	1.00	51.79	L	C
ATOM	3513	OG	SER	L	65	63.903	47.880	3.197	1.00	54.65	L	O
ATOM	3514	C	SER	L	65	61.942	46.325	5.240	1.00	52.23	L	C
ATOM	3515	O	SER	L	65	61.163	47.105	5.722	1.00	51.50	L	O
ATOM	3516	N	GLY	L	66	62.640	45.355	5.896	1.00	53.83	L	N
ATOM	3517	CA	GLY	L	66	62.944	45.167	7.285	1.00	54.65	L	C
ATOM	3518	C	GLY	L	66	62.097	44.044	7.895	1.00	55.40	L	C
ATOM	3519	O	GLY	L	66	61.401	43.294	7.225	1.00	56.17	L	O
ATOM	3520	N	SER	L	67	62.236	43.937	9.219	1.00	56.74	L	N
ATOM	3521	CA	SER	L	67	61.469	42.901	9.898	1.00	57.00	L	C
ATOM	3522	CB	SER	L	67	62.289	41.610	9.899	1.00	56.12	L	C
ATOM	3523	OG	SER	L	67	63.440	41.777	10.728	1.00	52.42	L	O
ATOM	3524	C	SER	L	67	61.112	43.301	11.330	1.00	58.80	L	C
ATOM	3525	O	SER	L	67	61.566	44.299	11.869	1.00	58.14	L	O
ATOM	3526	N	ARG	L	68	60.226	42.492	11.938	1.00	60.14	L	N
ATOM	3527	CA	ARG	L	68	59.752	42.799	13.284	1.00	62.85	L	C
ATOM	3528	CB	ARG	L	68	60.943	42.830	14.243	1.00	66.36	L	C
ATOM	3529	CG	ARG	L	68	60.579	42.311	15.635	1.00	71.20	L	C
ATOM	3530	CD	ARG	L	68	61.290	40.988	15.902	1.00	75.53	L	C
ATOM	3531	NE	ARG	L	68	62.250	40.757	14.819	1.00	79.27	L	N
ATOM	3532	CZ	ARG	L	68	62.796	39.537	14.706	1.00	81.84	L	C
ATOM	3533	NH1	ARG	L	68	62.477	38.584	15.563	1.00	81.92	L	N
ATOM	3534	NH2	ARG	L	68	63.640	39.287	13.702	1.00	82.11	L	N
ATOM	3535	C	ARG	L	68	59.054	44.151	13.354	1.00	62.53	L	C

	ATOM	3536	O	ARG	L	68	58.092	44.438	12.659	1.00	63.47	L	O
	ATOM	3537	N	THR	L	69	59.568	44.980	14.275	1.00	61.15	L	N
	ATOM	3538	CA	THR	L	69	58.935	46.256	14.555	1.00	58.99	L	C
	ATOM	3539	CB	THR	L	69	59.128	46.541	16.044	1.00	60.19	L	C
5	ATOM	3540	OG1	THR	L	69	60.474	46.226	16.405	1.00	62.69	L	O
	ATOM	3541	CG2	THR	L	69	58.185	45.666	16.872	1.00	59.57	L	C
	ATOM	3542	C	THR	L	69	59.549	47.398	13.734	1.00	56.96	L	C
	ATOM	3543	O	THR	L	69	59.270	48.573	13.949	1.00	58.32	L	O
	ATOM	3544	N	ASP	L	70	60.444	47.031	12.793	1.00	54.09	L	N
10	ATOM	3545	CA	ASP	L	70	61.095	48.083	12.018	1.00	52.20	L	C
	ATOM	3546	CB	ASP	L	70	62.565	48.163	12.433	1.00	55.60	L	C
	ATOM	3547	CG	ASP	L	70	62.648	48.807	13.817	1.00	58.39	L	C
	ATOM	3548	OD1	ASP	L	70	62.032	49.860	13.992	1.00	59.55	L	O
	ATOM	3549	OD2	ASP	L	70	63.304	48.254	14.694	1.00	61.45	L	O
15	ATOM	3550	C	ASP	L	70	60.963	47.857	10.511	1.00	50.32	L	C
	ATOM	3551	O	ASP	L	70	61.438	46.878	9.956	1.00	50.21	L	O
	ATOM	3552	N	PHE	L	71	60.236	48.803	9.855	1.00	47.22	L	N
	ATOM	3553	CA	PHE	L	71	60.062	48.762	8.391	1.00	45.44	L	C
	ATOM	3554	CB	PHE	L	71	58.633	48.313	8.064	1.00	43.23	L	C
20	ATOM	3555	CG	PHE	L	71	58.375	46.958	8.652	1.00	43.34	L	C
	ATOM	3556	CD1	PHE	L	71	57.803	46.861	9.913	1.00	41.62	L	C
	ATOM	3557	CD2	PHE	L	71	58.728	45.818	7.952	1.00	42.49	L	C
	ATOM	3558	CE1	PHE	L	71	57.594	45.613	10.480	1.00	40.34	L	C
	ATOM	3559	CE2	PHE	L	71	58.515	44.567	8.526	1.00	41.49	L	C
25	ATOM	3560	CZ	PHE	L	71	57.955	44.461	9.794	1.00	41.13	L	C
	ATOM	3561	C	PHE	L	71	60.331	50.125	7.733	1.00	45.21	L	C
	ATOM	3562	O	PHE	L	71	60.172	51.183	8.328	1.00	46.58	L	O
	ATOM	3563	N	THR	L	72	60.799	50.060	6.469	1.00	44.20	L	N
	ATOM	3564	CA	THR	L	72	60.899	51.279	5.668	1.00	45.03	L	C
30	ATOM	3565	CB	THR	L	72	62.369	51.709	5.571	1.00	46.32	L	C
	ATOM	3566	OG1	THR	L	72	63.003	51.009	4.500	1.00	52.20	L	O
	ATOM	3567	CG2	THR	L	72	63.107	51.390	6.874	1.00	45.31	L	C
	ATOM	3568	C	THR	L	72	60.311	51.079	4.266	1.00	43.73	L	C
	ATOM	3569	O	THR	L	72	60.368	50.004	3.684	1.00	43.76	L	O
35	ATOM	3570	N	LEU	L	73	59.865	52.169	3.622	1.00	41.77	L	N
	ATOM	3571	CA	LEU	L	73	59.338	52.202	2.296	1.00	40.47	L	C
	ATOM	3572	CB	LEU	L	73	57.998	52.828	2.268	1.00	40.24	L	C
	ATOM	3573	CG	LEU	L	73	57.448	53.062	0.879	1.00	40.67	L	C
	ATOM	3574	CD1	LEU	L	73	57.165	51.769	0.237	1.00	40.50	L	C
40	ATOM	3575	CD2	LEU	L	73	56.164	53.766	0.848	1.00	39.57	L	C
	ATOM	3576	C	LEU	L	73	60.244	53.239	1.573	1.00	41.39	L	C
	ATOM	3577	O	LEU	L	73	60.489	54.296	2.145	1.00	40.33	L	O
	ATOM	3578	N	THR	L	74	60.745	52.910	0.402	1.00	41.41	L	N
	ATOM	3579	CA	THR	L	74	61.678	53.807	-0.355	1.00	44.65	L	C
45	ATOM	3580	CB	THR	L	74	63.014	53.054	-0.458	1.00	45.29	L	C
	ATOM	3581	OG1	THR	L	74	63.448	52.846	0.943	1.00	47.02	L	O
	ATOM	3582	CG2	THR	L	74	64.004	53.738	-1.237	1.00	41.87	L	C
	ATOM	3583	C	THR	L	74	61.192	54.069	-1.791	1.00	46.11	L	C
	ATOM	3584	O	THR	L	74	60.575	53.156	-2.361	1.00	48.07	L	O
50	ATOM	3585	N	ILE	L	75	61.239	55.345	-2.184	1.00	46.93	L	N
	ATOM	3586	CA	ILE	L	75	60.824	55.801	-3.394	1.00	49.37	L	C
	ATOM	3587	CB	ILE	L	75	59.716	56.813	-3.255	1.00	49.66	L	C
	ATOM	3588	CG2	ILE	L	75	59.075	57.029	-4.756	1.00	48.29	L	C
	ATOM	3589	CG1	ILE	L	75	58.597	56.280	-2.371	1.00	49.08	L	C
55	ATOM	3590	CD1	ILE	L	75	57.615	57.253	-2.112	1.00	49.44	L	C
	ATOM	3591	C	ILE	L	75	62.057	56.414	-4.104	1.00	51.18	L	C
	ATOM	3592	O	ILE	L	75	62.647	57.343	-3.656	1.00	49.95	L	O
	ATOM	3593	N	ASN	L	76	62.551	55.697	-5.093	1.00	54.36	L	N
	ATOM	3594	CA	ASN	L	76	63.754	56.088	-5.754	1.00	56.06	L	C
60	ATOM	3595	CB	ASN	L	76	64.910	55.467	-5.119	1.00	56.78	L	C
	ATOM	3596	CG	ASN	L	76	66.156	56.228	-5.432	1.00	58.44	L	C

	ATOM	3597	OD1	ASN	L	76	66.083	57.367	-5.916	1.00	61.35	L	O
	ATOM	3598	ND2	ASN	L	76	67.262	55.617	-5.265	1.00	57.10	L	N
	ATOM	3599	C	ASN	L	76	63.854	55.739	-7.120	1.00	56.03	L	C
	ATOM	3600	O	ASN	L	76	63.964	54.552	-7.421	1.00	57.71	L	O
5	ATOM	3601	N	PRO	L	77	63.827	56.689	-7.994	1.00	55.48	L	N
	ATOM	3602	CD	PRO	L	77	64.022	56.425	-9.423	1.00	54.95	L	C
	ATOM	3603	CA	PRO	L	77	63.654	58.118	-7.725	1.00	55.35	L	C
	ATOM	3604	CB	PRO	L	77	64.191	58.743	-9.015	1.00	54.21	L	C
	ATOM	3605	CG	PRO	L	77	63.679	57.741	-10.056	1.00	54.17	L	C
10	ATOM	3606	C	PRO	L	77	62.202	58.627	-7.678	1.00	55.61	L	C
	ATOM	3607	O	PRO	L	77	61.249	58.102	-8.307	1.00	55.40	L	O
	ATOM	3608	N	VAL	L	78	62.090	59.733	-6.904	1.00	55.66	L	N
	ATOM	3609	CA	VAL	L	78	60.826	60.404	-6.770	1.00	55.06	L	C
	ATOM	3610	CB	VAL	L	78	60.878	61.341	-5.622	1.00	55.08	L	C
15	ATOM	3611	CG1	VAL	L	78	59.649	62.191	-5.632	1.00	54.52	L	C
	ATOM	3612	CG2	VAL	L	78	60.814	60.506	-4.300	1.00	53.19	L	C
	ATOM	3613	C	VAL	L	78	60.384	61.046	-8.097	1.00	54.90	L	C
	ATOM	3614	O	VAL	L	78	61.125	61.666	-8.805	1.00	55.13	L	O
	ATOM	3615	N	GLU	L	79	59.115	61.027	-8.313	1.00	53.45	L	N
20	ATOM	3616	CA	GLU	L	79	58.568	61.857	-9.363	1.00	53.76	L	C
	ATOM	3617	CB	GLU	L	79	58.064	60.856	-10.490	1.00	55.61	L	C
	ATOM	3618	CG	GLU	L	79	59.101	59.872	-10.986	1.00	59.25	L	C
	ATOM	3619	CD	GLU	L	79	58.606	58.946	-12.112	1.00	61.38	L	C
	ATOM	3620	OE1	GLU	L	79	59.547	58.243	-12.667	1.00	62.40	L	O
25	ATOM	3621	OE2	GLU	L	79	57.390	59.009	-12.468	1.00	61.93	L	O
	ATOM	3622	C	GLU	L	79	57.313	62.583	-8.913	1.00	52.66	L	C
	ATOM	3623	O	GLU	L	79	56.708	62.213	-7.941	1.00	52.31	L	O
	ATOM	3624	N	ALA	L	80	56.865	63.435	-9.740	1.00	52.07	L	N
	ATOM	3625	CA	ALA	L	80	55.877	64.405	-9.435	1.00	52.18	L	C
30	ATOM	3626	CB	ALA	L	80	55.736	65.167	-10.630	1.00	52.09	L	C
	ATOM	3627	C	ALA	L	80	54.499	63.900	-9.041	1.00	51.76	L	C
	ATOM	3628	O	ALA	L	80	53.863	64.489	-8.186	1.00	49.52	L	O
	ATOM	3629	N	ASP	L	81	54.106	62.824	-9.738	1.00	51.07	L	N
	ATOM	3630	CA	ASP	L	81	52.991	62.079	-9.383	1.00	52.00	L	C
35	ATOM	3631	CB	ASP	L	81	52.635	61.150	-10.581	1.00	54.54	L	C
	ATOM	3632	CG	ASP	L	81	51.245	60.565	-10.455	1.00	57.32	L	C
	ATOM	3633	OD1	ASP	L	81	50.181	61.322	-10.285	1.00	58.70	L	O
	ATOM	3634	OD2	ASP	L	81	51.146	59.343	-10.407	1.00	59.75	L	O
	ATOM	3635	C	ASP	L	81	53.025	61.238	-8.054	1.00	50.63	L	C
40	ATOM	3636	O	ASP	L	81	52.030	60.675	-7.720	1.00	49.73	L	O
	ATOM	3637	N	ASP	L	82	54.075	61.308	-7.279	1.00	48.83	L	N
	ATOM	3638	CA	ASP	L	82	54.144	60.597	-6.012	1.00	48.89	L	C
	ATOM	3639	CB	ASP	L	82	55.588	60.276	-5.666	1.00	49.88	L	C
	ATOM	3640	CG	ASP	L	82	56.240	59.342	-6.753	1.00	52.14	L	C
45	ATOM	3641	OD1	ASP	L	82	55.485	58.500	-7.287	1.00	52.41	L	O
	ATOM	3642	OD2	ASP	L	82	57.442	59.343	-6.965	1.00	54.56	L	O
	ATOM	3643	C	ASP	L	82	53.673	61.396	-4.814	1.00	48.65	L	C
	ATOM	3644	O	ASP	L	82	53.819	60.947	-3.655	1.00	48.04	L	O
	ATOM	3645	N	VAL	L	83	53.079	62.560	-5.096	1.00	47.12	L	N
50	ATOM	3646	CA	VAL	L	83	52.638	63.357	-4.005	1.00	46.76	L	C
	ATOM	3647	CB	VAL	L	83	52.165	64.848	-4.323	1.00	47.54	L	C
	ATOM	3648	CG1	VAL	L	83	53.180	65.486	-5.076	1.00	48.00	L	C
	ATOM	3649	CG2	VAL	L	83	51.050	64.877	-5.086	1.00	48.87	L	C
	ATOM	3650	C	VAL	L	83	51.408	62.654	-3.519	1.00	45.32	L	C
55	ATOM	3651	O	VAL	L	83	50.459	62.419	-4.303	1.00	45.55	L	O
	ATOM	3652	N	ALA	L	84	51.466	62.377	-2.239	1.00	43.63	L	N
	ATOM	3653	CA	ALA	L	84	50.503	61.592	-1.600	1.00	42.80	L	C
	ATOM	3654	CB	ALA	L	84	50.563	60.211	-2.223	1.00	43.11	L	C
	ATOM	3655	C	ALA	L	84	50.774	61.441	-0.101	1.00	41.61	L	C
60	ATOM	3656	O	ALA	L	84	51.894	61.700	0.329	1.00	42.11	L	O
	ATOM	3657	N	THR	L	85	49.863	60.727	0.565	1.00	39.60	L	N

ATOM	3658	CA	THR	L	85	50.123	60.302	1.982	1.00	41.07	L	C
ATOM	3659	CB	THR	L	85	48.924	60.597	2.859	1.00	41.88	L	C
ATOM	3660	OG1	THR	L	85	48.909	61.984	2.953	1.00	43.50	L	O
ATOM	3661	CG2	THR	L	85	49.099	60.169	4.220	1.00	42.73	L	C
ATOM	3662	C	THR	L	85	50.389	58.812	1.925	1.00	41.86	L	C
ATOM	3663	O	THR	L	85	49.688	58.201	1.232	1.00	42.14	L	O
ATOM	3664	N	TYR	L	86	51.335	58.228	2.692	1.00	41.17	L	N
ATOM	3665	CA	TYR	L	86	51.669	56.827	2.666	1.00	42.15	L	C
ATOM	3666	CB	TYR	L	86	53.123	56.644	2.243	1.00	40.67	L	C
ATOM	3667	CG	TYR	L	86	53.481	57.131	0.849	1.00	40.33	L	C
ATOM	3668	CD1	TYR	L	86	53.696	58.456	0.561	1.00	37.56	L	C
ATOM	3669	CE1	TYR	L	86	53.913	58.828	-0.781	1.00	38.35	L	C
ATOM	3670	CD2	TYR	L	86	53.330	56.289	-0.211	1.00	38.76	L	C
ATOM	3671	CE2	TYR	L	86	53.525	56.769	-1.598	1.00	37.31	L	C
ATOM	3672	CZ	TYR	L	86	53.794	58.033	-1.809	1.00	40.02	L	C
ATOM	3673	OH	TYR	L	86	53.888	58.480	-3.251	1.00	37.67	L	O
ATOM	3674	C	TYR	L	86	51.398	56.221	3.934	1.00	44.14	L	C
ATOM	3675	O	TYR	L	86	51.819	56.826	5.017	1.00	46.29	L	O
ATOM	3676	N	TYR	L	87	50.679	55.064	3.945	1.00	42.51	L	N
ATOM	3677	CA	TYR	L	87	50.454	54.392	5.249	1.00	42.40	L	C
ATOM	3678	CB	TYR	L	87	48.946	54.323	5.530	1.00	41.06	L	C
ATOM	3679	CG	TYR	L	87	48.195	55.573	5.499	1.00	39.25	L	C
ATOM	3680	CD1	TYR	L	87	47.706	56.110	4.322	1.00	37.90	L	C
ATOM	3681	CE1	TYR	L	87	46.929	57.277	4.400	1.00	37.86	L	C
ATOM	3682	CD2	TYR	L	87	47.710	56.086	6.696	1.00	39.45	L	C
ATOM	3683	CE2	TYR	L	87	47.057	57.273	6.743	1.00	37.41	L	C
ATOM	3684	CZ	TYR	L	87	46.626	57.829	5.430	1.00	37.62	L	C
ATOM	3685	OH	TYR	L	87	45.851	58.916	5.440	1.00	40.72	L	O
ATOM	3686	C	TYR	L	87	50.917	52.985	5.331	1.00	43.25	L	C
ATOM	3687	O	TYR	L	87	50.962	52.298	4.273	1.00	42.87	L	O
ATOM	3688	N	CYS	L	88	51.324	52.585	6.557	1.00	44.13	L	N
ATOM	3689	CA	CYS	L	88	51.632	51.249	6.833	1.00	44.88	L	C
ATOM	3690	C	CYS	L	88	50.505	50.617	7.597	1.00	44.55	L	C
ATOM	3691	O	CYS	L	88	49.622	51.295	8.129	1.00	43.38	L	O
ATOM	3692	CB	CYS	L	88	52.986	51.039	7.654	1.00	44.75	L	C
ATOM	3693	SG	CYS	L	88	52.928	52.042	9.185	1.00	45.57	L	S
ATOM	3694	N	GLN	L	89	50.460	49.282	7.528	1.00	44.18	L	N
ATOM	3695	CA	GLN	L	89	49.292	48.540	8.105	1.00	44.10	L	C
ATOM	3696	CB	GLN	L	89	48.125	48.523	7.140	1.00	42.71	L	C
ATOM	3697	CG	GLN	L	89	46.971	47.793	7.704	1.00	42.27	L	C
ATOM	3698	CD	GLN	L	89	46.825	46.370	6.956	1.00	42.95	L	C
ATOM	3699	OE1	GLN	L	89	46.839	46.258	5.730	1.00	41.37	L	O
ATOM	3700	NE2	GLN	L	89	46.888	45.307	7.793	1.00	38.44	L	N
ATOM	3701	C	GLN	L	89	49.756	47.136	8.424	1.00	45.06	L	C
ATOM	3702	O	GLN	L	89	50.446	46.580	7.598	1.00	44.95	L	O
ATOM	3703	N	GLN	L	90	49.475	46.672	9.633	1.00	44.17	L	N
ATOM	3704	CA	GLN	L	90	49.737	45.307	10.051	1.00	44.79	L	C
ATOM	3705	CB	GLN	L	90	50.491	45.296	11.398	1.00	42.34	L	C
ATOM	3706	CG	GLN	L	90	49.625	45.801	12.585	1.00	44.52	L	C
ATOM	3707	CD	GLN	L	90	48.654	44.710	13.155	1.00	46.51	L	C
ATOM	3708	OE1	GLN	L	90	48.921	43.583	13.018	1.00	46.93	L	O
ATOM	3709	NE2	GLN	L	90	47.546	45.105	13.756	1.00	46.47	L	N
ATOM	3710	C	GLN	L	90	48.505	44.352	10.090	1.00	45.80	L	C
ATOM	3711	O	GLN	L	90	47.331	44.706	10.396	1.00	44.66	L	O
ATOM	3712	N	SER	L	91	48.793	43.072	9.763	1.00	47.04	L	N
ATOM	3713	CA	SER	L	91	47.841	42.007	9.605	1.00	50.24	L	C
ATOM	3714	CB	SER	L	91	47.991	41.516	8.052	1.00	50.88	L	C
ATOM	3715	OG	SER	L	91	47.148	42.515	7.448	1.00	51.62	L	O
ATOM	3716	C	SER	L	91	48.260	40.852	10.535	1.00	51.03	L	C
ATOM	3717	O	SER	L	91	47.818	39.741	10.359	1.00	51.43	L	O
ATOM	3718	N	ASN	L	92	49.096	41.136	11.526	1.00	51.69	L	N

ATOM	3719	CA	ASN	L	92	49.553	40.106	12.404	1.00	52.68	L	C
ATOM	3720	CB	ASN	L	92	50.955	40.293	12.867	1.00	53.64	L	C
ATOM	3721	CG	ASN	L	92	51.439	39.102	13.659	1.00	54.66	L	C
ATOM	3722	OD1	ASN	L	92	51.345	38.022	13.199	1.00	55.46	L	O
ATOM	3723	ND2	ASN	L	92	52.089	39.337	14.773	1.00	53.66	L	N
ATOM	3724	C	ASN	L	92	48.650	39.774	13.452	1.00	52.84	L	C
ATOM	3725	O	ASN	L	92	48.547	38.677	13.787	1.00	51.48	L	O
ATOM	3726	N	GLU	L	93	47.867	40.694	13.784	1.00	54.21	L	N
ATOM	3727	CA	GLU	L	93	46.917	40.511	14.847	1.00	56.33	L	C
ATOM	3728	CB	GLU	L	93	47.664	40.794	16.127	1.00	58.27	L	C
ATOM	3729	CG	GLU	L	93	46.781	41.352	17.225	1.00	64.91	L	C
ATOM	3730	CD	GLU	L	93	47.570	41.631	18.613	1.00	69.27	L	C
ATOM	3731	OE1	GLU	L	93	47.033	42.328	19.596	1.00	69.83	L	O
ATOM	3732	OE2	GLU	L	93	48.753	41.164	18.679	1.00	71.16	L	O
ATOM	3733	C	GLU	L	93	45.693	41.403	14.792	1.00	55.46	L	C
ATOM	3734	O	GLU	L	93	45.830	42.487	14.512	1.00	55.13	L	O
ATOM	3735	N	ASP	L	94	44.532	40.975	15.329	1.00	54.53	L	N
ATOM	3736	CA	ASP	L	94	43.346	41.750	15.364	1.00	53.23	L	C
ATOM	3737	CB	ASP	L	94	42.142	40.809	15.294	1.00	54.70	L	C
ATOM	3738	CG	ASP	L	94	42.076	39.997	13.826	1.00	57.43	L	C
ATOM	3739	OD1	ASP	L	94	42.696	40.310	12.814	1.00	57.14	L	O
ATOM	3740	OD2	ASP	L	94	41.463	39.008	13.648	1.00	61.04	L	O
ATOM	3741	C	ASP	L	94	43.190	42.589	16.555	1.00	51.99	L	C
ATOM	3742	O	ASP	L	94	43.648	42.180	17.663	1.00	54.05	L	O
ATOM	3743	N	PRO	L	95	42.672	43.777	16.387	1.00	48.83	L	N
ATOM	3744	CD	PRO	L	95	42.461	44.714	17.489	1.00	47.99	L	C
ATOM	3745	CA	PRO	L	95	42.312	44.348	15.087	1.00	48.09	L	C
ATOM	3746	CB	PRO	L	95	41.376	45.510	15.436	1.00	49.09	L	C
ATOM	3747	CG	PRO	L	95	42.063	46.117	16.791	1.00	47.71	L	C
ATOM	3748	C	PRO	L	95	43.396	44.759	14.188	1.00	46.87	L	C
ATOM	3749	O	PRO	L	95	44.300	45.389	14.643	1.00	47.73	L	O
ATOM	3750	N	TRP	L	96	43.354	44.392	12.867	1.00	45.97	L	N
ATOM	3751	CA	TRP	L	96	44.289	45.074	11.947	1.00	45.52	L	C
ATOM	3752	CB	TRP	L	96	44.003	44.780	10.478	1.00	45.68	L	C
ATOM	3753	CG	TRP	L	96	44.181	43.372	10.097	1.00	45.86	L	C
ATOM	3754	CD2	TRP	L	96	44.084	42.815	8.827	1.00	46.64	L	C
ATOM	3755	CE2	TRP	L	96	44.231	41.361	8.976	1.00	46.98	L	C
ATOM	3756	CE3	TRP	L	96	43.831	43.331	7.577	1.00	47.58	L	C
ATOM	3757	CD1	TRP	L	96	44.369	42.327	10.941	1.00	44.89	L	C
ATOM	3758	NE1	TRP	L	96	44.446	41.119	10.306	1.00	45.59	L	N
ATOM	3759	CZ2	TRP	L	96	44.327	40.521	7.939	1.00	46.28	L	C
ATOM	3760	CZ3	TRP	L	96	43.875	42.467	6.467	1.00	48.84	L	C
ATOM	3761	CH2	TRP	L	96	44.030	41.022	6.640	1.00	47.17	L	C
ATOM	3762	C	TRP	L	96	44.304	46.639	12.165	1.00	43.70	L	C
ATOM	3763	O	TRP	L	96	43.282	47.212	12.334	1.00	42.66	L	O
ATOM	3764	N	THR	L	97	45.480	47.279	12.172	1.00	42.35	L	N
ATOM	3765	CA	THR	L	97	45.610	48.692	12.325	1.00	42.63	L	C
ATOM	3766	CB	THR	L	97	46.179	49.032	13.645	1.00	41.06	L	C
ATOM	3767	OG1	THR	L	97	47.337	48.270	13.806	1.00	42.43	L	O
ATOM	3768	CG2	THR	L	97	45.190	48.602	14.784	1.00	42.15	L	C
ATOM	3769	C	THR	L	97	46.561	49.331	11.315	1.00	42.11	L	C
ATOM	3770	O	THR	L	97	47.465	48.653	10.852	1.00	40.72	L	O
ATOM	3771	N	PHE	L	98	46.371	50.620	11.204	1.00	42.79	L	N
ATOM	3772	CA	PHE	L	98	47.158	51.355	10.243	1.00	44.72	L	C
ATOM	3773	CB	PHE	L	98	46.257	52.157	9.301	1.00	44.19	L	C
ATOM	3774	CG	PHE	L	98	45.492	51.275	8.233	1.00	45.94	L	C
ATOM	3775	CD1	PHE	L	98	44.260	50.690	8.549	1.00	44.38	L	C
ATOM	3776	CD2	PHE	L	98	45.845	51.317	6.909	1.00	43.71	L	C
ATOM	3777	CE1	PHE	L	98	43.579	49.891	7.630	1.00	44.14	L	C
ATOM	3778	CE2	PHE	L	98	45.142	50.544	5.952	1.00	44.40	L	C
ATOM	3779	CZ	PHE	L	98	43.990	49.844	6.323	1.00	43.77	L	C

ATOM	3780	C	PHE	L	98	48.021	52.424	11.032	1.00	45.39	L	C
ATOM	3781	O	PHE	L	98	47.539	53.020	11.932	1.00	46.17	L	O
ATOM	3782	N	GLY	L	99	49.155	52.858	10.467	1.00	45.81	L	N
ATOM	3783	CA	GLY	L	99	49.809	54.075	10.921	1.00	45.06	L	C
ATOM	3784	C	GLY	L	99	49.051	55.337	10.565	1.00	46.31	L	C
ATOM	3785	O	GLY	L	99	48.143	55.392	9.509	1.00	45.42	L	O
ATOM	3786	N	GLY	L	100	49.531	56.441	11.247	1.00	45.88	L	N
ATOM	3787	CA	GLY	L	100	49.024	57.752	11.058	1.00	45.30	L	C
ATOM	3788	C	GLY	L	100	49.199	58.373	9.657	1.00	45.43	L	C
ATOM	3789	O	GLY	L	100	48.790	59.443	9.313	1.00	45.57	L	O
ATOM	3790	N	GLY	L	101	50.013	57.757	8.844	1.00	45.62	L	N
ATOM	3791	CA	GLY	L	101	50.426	58.406	7.650	1.00	45.85	L	C
ATOM	3792	C	GLY	L	101	51.663	59.279	7.620	1.00	46.19	L	C
ATOM	3793	O	GLY	L	101	51.934	59.904	8.587	1.00	44.61	L	O
ATOM	3794	N	THR	L	102	52.291	59.442	6.433	1.00	45.36	L	N
ATOM	3795	CA	THR	L	102	53.411	60.313	6.255	1.00	45.28	L	C
ATOM	3796	CB	THR	L	102	54.626	59.534	5.965	1.00	44.83	L	C
ATOM	3797	OG1	THR	L	102	55.236	59.086	7.115	1.00	44.03	L	O
ATOM	3798	CG2	THR	L	102	55.665	60.329	5.172	1.00	44.01	L	C
ATOM	3799	C	THR	L	102	53.154	60.976	4.830	1.00	46.66	L	C
ATOM	3800	O	THR	L	102	52.867	60.240	3.841	1.00	45.35	L	O
ATOM	3801	N	LYS	L	103	53.058	62.320	4.809	1.00	47.18	L	N
ATOM	3802	CA	LYS	L	103	52.816	63.201	3.673	1.00	48.50	L	C
ATOM	3803	CB	LYS	L	103	52.191	64.445	4.212	1.00	50.90	L	C
ATOM	3804	CG	LYS	L	103	51.609	65.477	3.221	1.00	56.57	L	C
ATOM	3805	CD	LYS	L	103	50.967	64.749	1.911	1.00	60.51	L	C
ATOM	3806	CE	LYS	L	103	50.587	65.501	0.527	1.00	60.75	L	C
ATOM	3807	NZ	LYS	L	103	49.218	64.661	0.158	1.00	64.51	L	N
ATOM	3808	C	LYS	L	103	54.089	63.528	2.937	1.00	49.12	L	C
ATOM	3809	O	LYS	L	103	55.070	63.987	3.529	1.00	46.89	L	O
ATOM	3810	N	LEU	L	104	54.136	63.203	1.640	1.00	49.88	L	N
ATOM	3811	CA	LEU	L	104	55.237	63.493	0.821	1.00	50.17	L	C
ATOM	3812	CB	LEU	L	104	55.450	62.279	-0.094	1.00	50.10	L	C
ATOM	3813	CG	LEU	L	104	56.504	62.487	-1.172	1.00	51.61	L	C
ATOM	3814	CD1	LEU	L	104	57.736	62.665	-0.408	1.00	50.91	L	C
ATOM	3815	CD2	LEU	L	104	56.680	61.293	-2.010	1.00	51.28	L	C
ATOM	3816	C	LEU	L	104	54.886	64.669	-0.160	1.00	50.51	L	C
ATOM	3817	O	LEU	L	104	54.013	64.595	-0.991	1.00	50.36	L	O
ATOM	3818	N	GLU	L	105	55.750	65.621	-0.180	1.00	52.49	L	N
ATOM	3819	CA	GLU	L	105	55.759	66.681	-1.104	1.00	54.11	L	C
ATOM	3820	CB	GLU	L	105	55.539	67.921	-0.352	1.00	55.10	L	C
ATOM	3821	CG	GLU	L	105	54.018	67.996	-0.086	1.00	61.17	L	C
ATOM	3822	CD	GLU	L	105	53.637	68.790	1.207	1.00	64.63	L	C
ATOM	3823	OE1	GLU	L	105	54.425	68.420	2.179	1.00	67.64	L	O
ATOM	3824	OE2	GLU	L	105	52.652	69.661	1.163	1.00	65.16	L	O
ATOM	3825	C	GLU	L	105	56.954	66.708	-2.082	1.00	54.00	L	C
ATOM	3826	O	GLU	L	105	58.116	66.333	-1.762	1.00	53.00	L	O
ATOM	3827	N	ILE	L	106	56.644	67.285	-3.223	1.00	54.75	L	N
ATOM	3828	CA	ILE	L	106	57.745	67.670	-4.139	1.00	56.70	L	C
ATOM	3829	CB	ILE	L	106	57.349	67.406	-5.589	1.00	56.28	L	C
ATOM	3830	CG2	ILE	L	106	58.592	67.703	-6.534	1.00	56.73	L	C
ATOM	3831	CG1	ILE	L	106	56.777	65.999	-5.661	1.00	57.37	L	C
ATOM	3832	CD1	ILE	L	106	57.702	65.016	-5.232	1.00	56.71	L	C
ATOM	3833	C	ILE	L	106	58.348	69.019	-3.972	1.00	57.21	L	C
ATOM	3834	O	ILE	L	106	57.604	69.928	-3.826	1.00	57.93	L	O
ATOM	3835	N	LYS	L	107	59.714	69.124	-3.982	1.00	57.73	L	N
ATOM	3836	CA	LYS	L	107	60.478	70.430	-4.003	1.00	58.73	L	C
ATOM	3837	CB	LYS	L	107	61.787	70.552	-3.283	1.00	58.92	L	C
ATOM	3838	CG	LYS	L	107	61.726	70.325	-1.955	1.00	61.50	L	C
ATOM	3839	CD	LYS	L	107	63.145	70.594	-1.364	1.00	63.56	L	C
ATOM	3840	CE	LYS	L	107	63.002	71.212	0.071	1.00	65.27	L	C

ATOM	3841	NZ	LYS	L	107	64.255	71.130	0.893	1.00	67.17	L	N
ATOM	3842	C	LYS	L	107	60.785	70.780	-5.419	1.00	58.54	L	C
ATOM	3843	O	LYS	L	107	61.079	69.888	-6.256	1.00	59.83	L	O
ATOM	3844	N	ARG	L	108	60.489	72.052	-5.691	1.00	57.71	L	N
ATOM	3845	CA	ARG	L	108	60.602	72.586	-6.940	1.00	56.79	L	C
ATOM	3846	CB	ARG	L	108	59.370	72.336	-7.752	1.00	56.25	L	C
ATOM	3847	CG	ARG	L	108	58.122	72.926	-7.302	1.00	57.11	L	C
ATOM	3848	CD	ARG	L	108	57.194	73.347	-8.373	1.00	58.22	L	C
ATOM	3849	NE	ARG	L	108	57.728	74.544	-9.051	1.00	59.58	L	N
ATOM	3850	CZ	ARG	L	108	57.277	75.002	-10.208	1.00	60.73	L	C
ATOM	3851	NH1	ARG	L	108	56.286	74.384	-10.896	1.00	60.18	L	N
ATOM	3852	NH2	ARG	L	108	57.817	76.093	-10.739	1.00	60.38	L	N
ATOM	3853	C	ARG	L	108	61.109	73.981	-6.858	1.00	57.20	L	C
ATOM	3854	O	ARG	L	108	61.247	74.526	-5.783	1.00	57.37	L	O
ATOM	3855	N	ALA	L	109	61.418	74.553	-8.058	1.00	56.62	L	N
ATOM	3856	CA	ALA	L	109	61.799	76.015	-8.199	1.00	56.09	L	C
ATOM	3857	CB	ALA	L	109	62.040	76.296	-9.655	1.00	53.79	L	C
ATOM	3858	C	ALA	L	109	60.615	76.950	-7.667	1.00	56.43	L	C
ATOM	3859	O	ALA	L	109	59.410	76.628	-7.921	1.00	56.16	L	O
ATOM	3860	N	ASP	L	110	60.920	78.053	-6.998	1.00	56.18	L	N
ATOM	3861	CA	ASP	L	110	59.892	78.966	-6.545	1.00	56.86	L	C
ATOM	3862	CB	ASP	L	110	60.511	80.157	-5.837	1.00	56.81	L	C
ATOM	3863	CG	ASP	L	110	61.128	79.797	-4.443	1.00	58.54	L	C
ATOM	3864	OD1	ASP	L	110	60.928	78.730	-3.852	1.00	59.52	L	O
ATOM	3865	OD2	ASP	L	110	61.870	80.621	-3.807	1.00	59.92	L	O
ATOM	3866	C	ASP	L	110	59.125	79.430	-7.775	1.00	57.69	L	C
ATOM	3867	O	ASP	L	110	59.672	79.417	-8.905	1.00	59.35	L	O
ATOM	3868	N	ALA	L	111	57.838	79.723	-7.595	1.00	56.11	L	N
ATOM	3869	CA	ALA	L	111	56.869	80.171	-8.619	1.00	55.19	L	C
ATOM	3870	CB	ALA	L	111	56.070	79.034	-9.159	1.00	52.10	L	C
ATOM	3871	C	ALA	L	111	55.941	81.179	-7.991	1.00	55.80	L	C
ATOM	3872	O	ALA	L	111	55.376	80.892	-6.956	1.00	55.37	L	O
ATOM	3873	N	ALA	L	112	55.807	82.368	-8.618	1.00	56.05	L	N
ATOM	3874	CA	ALA	L	112	54.850	83.310	-8.173	1.00	56.07	L	C
ATOM	3875	CB	ALA	L	112	55.222	84.806	-8.826	1.00	55.31	L	C
ATOM	3876	C	ALA	L	112	53.370	82.893	-8.402	1.00	56.07	L	C
ATOM	3877	O	ALA	L	112	52.988	82.406	-9.455	1.00	56.89	L	O
ATOM	3878	N	PRO	L	113	52.474	83.234	-7.505	1.00	55.80	L	N
ATOM	3879	CD	PRO	L	113	52.643	84.043	-6.244	1.00	54.68	L	C
ATOM	3880	CA	PRO	L	113	51.074	83.015	-7.777	1.00	54.69	L	C
ATOM	3881	CB	PRO	L	113	50.384	83.513	-6.451	1.00	54.68	L	C
ATOM	3882	CG	PRO	L	113	51.271	84.529	-5.848	1.00	53.65	L	C
ATOM	3883	C	PRO	L	113	50.516	83.920	-8.805	1.00	54.74	L	C
ATOM	3884	O	PRO	L	113	50.922	85.031	-8.877	1.00	55.39	L	O
ATOM	3885	N	THR	L	114	49.392	83.530	-9.334	1.00	54.38	L	N
ATOM	3886	CA	THR	L	114	48.631	84.218	-10.276	1.00	54.72	L	C
ATOM	3887	CB	THR	L	114	48.300	83.289	-11.360	1.00	55.08	L	C
ATOM	3888	OG1	THR	L	114	49.517	82.942	-11.940	1.00	56.71	L	O
ATOM	3889	CG2	THR	L	114	47.352	84.010	-12.458	1.00	54.02	L	C
ATOM	3890	C	THR	L	114	47.315	84.529	-9.570	1.00	55.93	L	C
ATOM	3891	O	THR	L	114	46.529	83.548	-9.242	1.00	55.95	L	O
ATOM	3892	N	VAL	L	115	47.093	85.831	-9.299	1.00	55.11	L	N
ATOM	3893	CA	VAL	L	115	46.026	86.296	-8.435	1.00	55.65	L	C
ATOM	3894	CB	VAL	L	115	46.526	87.339	-7.568	1.00	55.29	L	C
ATOM	3895	CG1	VAL	L	115	45.498	87.847	-6.585	1.00	54.37	L	C
ATOM	3896	CG2	VAL	L	115	47.733	86.748	-6.861	1.00	55.51	L	C
ATOM	3897	C	VAL	L	115	44.896	86.832	-9.187	1.00	56.77	L	C
ATOM	3898	O	VAL	L	115	45.067	87.612	-10.165	1.00	57.49	L	O
ATOM	3899	N	SER	L	116	43.697	86.493	-8.747	1.00	57.44	L	N
ATOM	3900	CA	SER	L	116	42.536	87.040	-9.514	1.00	59.96	L	C
ATOM	3901	CB	SER	L	116	41.993	86.004	-10.433	1.00	59.44	L	C

ATOM	3902	OG	SER	L	116	43.127	85.809	-11.254	1.00	63.37	L	O
ATOM	3903	C	SER	L	116	41.517	87.421	-8.528	1.00	61.30	L	C
ATOM	3904	O	SER	L	116	41.396	86.709	-7.486	1.00	62.38	L	O
ATOM	3905	N	ILE	L	117	40.807	88.529	-8.785	1.00	62.29	L	N
ATOM	3906	CA	ILE	L	117	39.705	88.949	-7.955	1.00	63.59	L	C
ATOM	3907	CB	ILE	L	117	40.034	90.318	-7.214	1.00	64.24	L	C
ATOM	3908	CG2	ILE	L	117	39.911	91.545	-8.193	1.00	63.93	L	C
ATOM	3909	CG1	ILE	L	117	39.176	90.561	-5.851	1.00	63.82	L	C
ATOM	3910	CD1	ILE	L	117	39.509	91.728	-5.135	1.00	63.17	L	C
ATOM	3911	C	ILE	L	117	38.324	88.847	-8.605	1.00	64.65	L	C
ATOM	3912	O	ILE	L	117	38.135	88.842	-9.868	1.00	66.10	L	O
ATOM	3913	N	PHE	L	118	37.301	88.667	-7.783	1.00	65.70	L	N
ATOM	3914	CA	PHE	L	118	36.011	88.514	-8.316	1.00	67.48	L	C
ATOM	3915	CB	PHE	L	118	35.650	87.070	-8.575	1.00	68.00	L	C
ATOM	3916	CG	PHE	L	118	36.650	86.307	-9.398	1.00	68.57	L	C
ATOM	3917	CD1	PHE	L	118	37.740	85.735	-8.812	1.00	69.91	L	C
ATOM	3918	CD2	PHE	L	118	36.448	86.087	-10.734	1.00	67.93	L	C
ATOM	3919	CE1	PHE	L	118	38.640	85.062	-9.583	1.00	69.94	L	C
ATOM	3920	CE2	PHE	L	118	37.333	85.356	-11.483	1.00	68.43	L	C
ATOM	3921	CZ	PHE	L	118	38.378	84.846	-10.967	1.00	68.56	L	C
ATOM	3922	C	PHE	L	118	34.952	89.192	-7.470	1.00	68.64	L	C
ATOM	3923	O	PHE	L	118	34.821	88.899	-6.264	1.00	69.49	L	O
ATOM	3924	N	PRO	L	119	34.151	90.103	-8.061	1.00	69.22	L	N
ATOM	3925	CD	PRO	L	119	34.183	90.603	-9.460	1.00	68.87	L	C
ATOM	3926	CA	PRO	L	119	33.094	90.771	-7.290	1.00	69.16	L	C
ATOM	3927	CB	PRO	L	119	32.689	91.929	-8.220	1.00	68.71	L	C
ATOM	3928	CG	PRO	L	119	33.934	92.087	-9.087	1.00	69.40	L	C
ATOM	3929	C	PRO	L	119	31.941	89.878	-7.085	1.00	69.48	L	C
ATOM	3930	O	PRO	L	119	31.819	88.991	-7.820	1.00	69.66	L	O
ATOM	3931	N	PRO	L	120	31.018	90.158	-6.195	1.00	70.27	L	N
ATOM	3932	CD	PRO	L	120	30.919	91.398	-5.392	1.00	70.15	L	C
ATOM	3933	CA	PRO	L	120	29.871	89.237	-5.969	1.00	71.14	L	C
ATOM	3934	CB	PRO	L	120	29.149	89.866	-4.837	1.00	70.76	L	C
ATOM	3935	CG	PRO	L	120	30.185	90.868	-4.253	1.00	70.81	L	C
ATOM	3936	C	PRO	L	120	28.917	89.154	-7.152	1.00	71.90	L	C
ATOM	3937	O	PRO	L	120	28.743	90.113	-7.840	1.00	72.28	L	O
ATOM	3938	N	SER	L	121	28.311	88.008	-7.406	1.00	73.49	L	N
ATOM	3939	CA	SER	L	121	27.432	87.865	-8.562	1.00	75.09	L	C
ATOM	3940	CB	SER	L	121	27.094	86.412	-8.743	1.00	75.12	L	C
ATOM	3941	OG	SER	L	121	26.586	85.860	-7.505	1.00	75.74	L	O
ATOM	3942	C	SER	L	121	26.132	88.602	-8.241	1.00	76.41	L	C
ATOM	3943	O	SER	L	121	25.753	88.759	-7.076	1.00	76.22	L	O
ATOM	3944	N	SER	L	122	25.406	89.005	-9.291	1.00	77.92	L	N
ATOM	3945	CA	SER	L	122	24.027	89.566	-9.093	1.00	79.32	L	C
ATOM	3946	CB	SER	L	122	23.326	89.892	-10.400	1.00	79.46	L	C
ATOM	3947	OG	SER	L	122	24.061	89.395	-11.455	1.00	81.39	L	O
ATOM	3948	C	SER	L	122	23.128	88.620	-8.362	1.00	79.71	L	C
ATOM	3949	O	SER	L	122	22.367	89.032	-7.482	1.00	79.61	L	O
ATOM	3950	N	GLU	L	123	23.245	87.351	-8.720	1.00	79.84	L	N
ATOM	3951	CA	GLU	L	123	22.352	86.391	-8.170	1.00	80.62	L	C
ATOM	3952	CB	GLU	L	123	22.642	85.086	-8.917	1.00	82.32	L	C
ATOM	3953	CG	GLU	L	123	21.476	84.057	-9.091	1.00	84.76	L	C
ATOM	3954	CD	GLU	L	123	21.980	82.620	-9.416	1.00	86.63	L	C
ATOM	3955	OE1	GLU	L	123	21.543	81.649	-8.701	1.00	88.17	L	O
ATOM	3956	OE2	GLU	L	123	22.830	82.491	-10.349	1.00	87.03	L	O
ATOM	3957	C	GLU	L	123	22.341	86.308	-6.609	1.00	79.85	L	C
ATOM	3958	O	GLU	L	123	21.293	86.136	-5.979	1.00	79.94	L	O
ATOM	3959	N	GLN	L	124	23.486	86.506	-5.988	1.00	79.17	L	N
ATOM	3960	CA	GLN	L	124	23.628	86.412	-4.536	1.00	78.84	L	C
ATOM	3961	CB	GLN	L	124	25.119	86.103	-4.212	1.00	77.47	L	C
ATOM	3962	CG	GLN	L	124	25.590	86.085	-2.803	1.00	75.52	L	C

ATOM	3963	CD	GLN	L	124	27.166	86.208	-2.726	1.00	75.37	L	C
ATOM	3964	OE1	GLN	L	124	27.734	86.138	-1.666	1.00	75.06	L	O
ATOM	3965	NE2	GLN	L	124	27.811	86.385	-3.834	1.00	74.95	L	N
ATOM	3966	C	GLN	L	124	23.222	87.747	-3.926	1.00	79.38	L	C
ATOM	3967	O	GLN	L	124	22.714	87.841	-2.784	1.00	78.57	L	O
ATOM	3968	N	LEU	L	125	23.531	88.797	-4.708	1.00	80.14	L	N
ATOM	3969	CA	LEU	L	125	23.192	90.185	-4.268	1.00	80.82	L	C
ATOM	3970	CB	LEU	L	125	23.623	91.162	-5.306	1.00	79.74	L	C
ATOM	3971	CG	LEU	L	125	24.770	92.122	-5.094	1.00	78.76	L	C
ATOM	3972	CD1	LEU	L	125	25.497	91.659	-3.878	1.00	78.25	L	C
ATOM	3973	CD2	LEU	L	125	25.712	92.319	-6.364	1.00	78.11	L	C
ATOM	3974	C	LEU	L	125	21.678	90.292	-4.087	1.00	81.71	L	C
ATOM	3975	O	LEU	L	125	21.222	90.372	-2.956	1.00	82.15	L	O
ATOM	3976	N	THR	L	126	20.893	90.207	-5.150	1.00	81.94	L	N
ATOM	3977	CA	THR	L	126	19.476	90.116	-4.932	1.00	82.43	L	C
ATOM	3978	CB	THR	L	126	18.740	89.577	-6.127	1.00	82.87	L	C
ATOM	3979	OG1	THR	L	126	19.106	88.209	-6.272	1.00	84.01	L	O
ATOM	3980	CG2	THR	L	126	19.112	90.313	-7.442	1.00	83.71	L	C
ATOM	3981	C	THR	L	126	19.188	89.148	-3.809	1.00	82.03	L	C
ATOM	3982	O	THR	L	126	18.218	89.262	-3.161	1.00	83.16	L	O
ATOM	3983	N	SER	L	127	19.972	88.128	-3.608	1.00	81.29	L	N
ATOM	3984	CA	SER	L	127	19.769	87.307	-2.421	1.00	80.30	L	C
ATOM	3985	CB	SER	L	127	20.700	86.060	-2.431	1.00	81.26	L	C
ATOM	3986	OG	SER	L	127	20.075	84.893	-1.916	1.00	82.17	L	O
ATOM	3987	C	SER	L	127	19.959	87.974	-1.042	1.00	78.92	L	C
ATOM	3988	O	SER	L	127	19.477	87.367	-0.088	1.00	79.15	L	O
ATOM	3989	N	GLY	L	128	20.661	89.130	-0.915	1.00	77.27	L	N
ATOM	3990	CA	GLY	L	128	21.107	89.689	0.384	1.00	76.66	L	C
ATOM	3991	C	GLY	L	128	22.578	89.517	0.913	1.00	76.00	L	C
ATOM	3992	O	GLY	L	128	22.943	89.960	2.002	1.00	75.56	L	O
ATOM	3993	N	GLY	L	129	23.398	88.774	0.171	1.00	75.16	L	N
ATOM	3994	CA	GLY	L	129	24.795	88.519	0.509	1.00	73.79	L	C
ATOM	3995	C	GLY	L	129	25.750	89.161	-0.515	1.00	72.59	L	C
ATOM	3996	O	GLY	L	129	25.391	89.350	-1.659	1.00	71.66	L	O
ATOM	3997	N	ALA	L	130	26.977	89.495	-0.095	1.00	71.12	L	N
ATOM	3998	CA	ALA	L	130	27.996	89.860	-1.089	1.00	69.78	L	C
ATOM	3999	CB	ALA	L	130	28.269	91.282	-0.981	1.00	69.16	L	C
ATOM	4000	C	ALA	L	130	29.248	88.975	-0.726	1.00	69.14	L	C
ATOM	4001	O	ALA	L	130	29.693	89.059	0.402	1.00	69.40	L	O
ATOM	4002	N	SER	L	131	29.685	88.053	-1.568	1.00	67.83	L	N
ATOM	4003	CA	SER	L	131	30.954	87.324	-1.317	1.00	66.38	L	C
ATOM	4004	CB	SER	L	131	30.761	85.779	-1.366	1.00	66.45	L	C
ATOM	4005	OG	SER	L	131	29.911	85.269	-0.267	1.00	65.95	L	O
ATOM	4006	C	SER	L	131	31.977	87.774	-2.347	1.00	65.46	L	C
ATOM	4007	O	SER	L	131	31.640	87.847	-3.602	1.00	65.33	L	O
ATOM	4008	N	VAL	L	132	33.141	88.177	-1.850	1.00	64.00	L	N
ATOM	4009	CA	VAL	L	132	34.236	88.632	-2.718	1.00	63.13	L	C
ATOM	4010	CB	VAL	L	132	34.819	89.972	-2.286	1.00	63.18	L	C
ATOM	4011	CG1	VAL	L	132	35.786	90.546	-3.235	1.00	62.10	L	C
ATOM	4012	CG2	VAL	L	132	33.797	90.979	-2.012	1.00	63.46	L	C
ATOM	4013	C	VAL	L	132	35.287	87.545	-2.681	1.00	62.52	L	C
ATOM	4014	O	VAL	L	132	35.689	87.053	-1.599	1.00	61.71	L	O
ATOM	4015	N	VAL	L	133	35.674	87.092	-3.864	1.00	62.28	L	N
ATOM	4016	CA	VAL	L	133	36.508	85.922	-4.004	1.00	61.13	L	C
ATOM	4017	CB	VAL	L	133	35.845	84.812	-4.879	1.00	60.79	L	C
ATOM	4018	CG1	VAL	L	133	36.666	83.560	-4.734	1.00	61.21	L	C
ATOM	4019	CG2	VAL	L	133	34.490	84.536	-4.496	1.00	60.87	L	C
ATOM	4020	C	VAL	L	133	37.779	86.296	-4.687	1.00	60.84	L	C
ATOM	4021	O	VAL	L	133	37.838	87.026	-5.766	1.00	59.39	L	O
ATOM	4022	N	CYS	L	134	38.808	85.738	-4.151	1.00	60.55	L	N
ATOM	4023	CA	CYS	L	134	40.170	85.866	-4.711	1.00	60.80	L	C

ATOM	4024	C	CYS	L	134	40.910	84.507	-4.875	1.00	58.83	L	C
ATOM	4025	O	CYS	L	134	41.022	83.716	-3.947	1.00	58.54	L	O
ATOM	4026	CB	CYS	L	134	40.963	86.783	-3.760	1.00	62.49	L	C
ATOM	4027	SG	CYS	L	134	42.525	87.373	-4.465	1.00	66.69	L	S
ATOM	4028	N	PHE	L	135	41.465	84.202	-6.034	1.00	58.10	L	N
ATOM	4029	CA	PHE	L	135	42.320	83.024	-6.337	1.00	58.00	L	C
ATOM	4030	CB	PHE	L	135	41.916	82.231	-7.608	1.00	57.99	L	C
ATOM	4031	CG	PHE	L	135	40.563	81.667	-7.504	1.00	59.98	L	C
ATOM	4032	CD1	PHE	L	135	40.199	80.894	-6.353	1.00	60.26	L	C
ATOM	4033	CD2	PHE	L	135	39.570	81.927	-8.426	1.00	60.52	L	C
ATOM	4034	CE1	PHE	L	135	38.918	80.414	-6.220	1.00	60.79	L	C
ATOM	4035	CE2	PHE	L	135	38.274	81.405	-8.208	1.00	60.24	L	C
ATOM	4036	CZ	PHE	L	135	37.979	80.723	-7.131	1.00	60.17	L	C
ATOM	4037	C	PHE	L	135	43.695	83.390	-6.360	1.00	57.37	L	C
ATOM	4038	O	PHE	L	135	44.065	84.430	-6.793	1.00	59.08	L	O
ATOM	4039	N	LEU	L	136	44.475	82.615	-5.732	1.00	56.20	L	N
ATOM	4040	CA	LEU	L	136	45.902	82.636	-5.797	1.00	56.01	L	C
ATOM	4041	CB	LEU	L	136	46.466	82.926	-4.349	1.00	55.00	L	C
ATOM	4042	CG	LEU	L	136	46.197	84.380	-3.849	1.00	53.48	L	C
ATOM	4043	CD1	LEU	L	136	44.809	84.348	-3.487	1.00	52.57	L	C
ATOM	4044	CD2	LEU	L	136	47.206	84.588	-2.663	1.00	53.68	L	C
ATOM	4045	C	LEU	L	136	46.461	81.270	-6.220	1.00	55.46	L	C
ATOM	4046	O	LEU	L	136	46.648	80.361	-5.363	1.00	55.72	L	O
ATOM	4047	N	ASN	L	137	46.696	81.125	-7.504	1.00	54.71	L	N
ATOM	4048	CA	ASN	L	137	46.908	79.853	-8.217	1.00	54.02	L	C
ATOM	4049	CB	ASN	L	137	45.912	79.848	-9.315	1.00	53.13	L	C
ATOM	4050	CG	ASN	L	137	44.576	79.532	-8.824	1.00	54.07	L	C
ATOM	4051	OD1	ASN	L	137	43.611	79.418	-9.556	1.00	54.87	L	O
ATOM	4052	ND2	ASN	L	137	44.486	79.396	-7.490	1.00	53.36	L	N
ATOM	4053	C	ASN	L	137	48.280	79.488	-8.641	1.00	53.42	L	C
ATOM	4054	O	ASN	L	137	49.023	80.363	-9.044	1.00	52.73	L	O
ATOM	4055	N	ASN	L	138	48.717	78.234	-8.388	1.00	53.56	L	N
ATOM	4056	CA	ASN	L	138	50.019	77.761	-8.934	1.00	52.82	L	C
ATOM	4057	CB	ASN	L	138	49.948	77.670	-10.515	1.00	53.07	L	C
ATOM	4058	CG	ASN	L	138	48.845	76.761	-10.939	1.00	53.90	L	C
ATOM	4059	OD1	ASN	L	138	47.738	77.168	-11.022	1.00	54.05	L	O
ATOM	4060	ND2	ASN	L	138	49.164	75.451	-11.148	1.00	56.15	L	N
ATOM	4061	C	ASN	L	138	51.282	78.409	-8.462	1.00	52.73	L	C
ATOM	4062	O	ASN	L	138	52.085	78.958	-9.222	1.00	52.99	L	O
ATOM	4063	N	PHE	L	139	51.493	78.369	-7.146	1.00	51.91	L	N
ATOM	4064	CA	PHE	L	139	52.686	78.991	-6.586	1.00	50.60	L	C
ATOM	4065	CB	PHE	L	139	52.243	80.105	-5.715	1.00	50.74	L	C
ATOM	4066	CG	PHE	L	139	51.351	79.679	-4.491	1.00	48.25	L	C
ATOM	4067	CD1	PHE	L	139	51.889	79.231	-3.410	1.00	46.22	L	C
ATOM	4068	CD2	PHE	L	139	50.020	79.854	-4.515	1.00	47.57	L	C
ATOM	4069	CE1	PHE	L	139	51.033	78.832	-2.264	1.00	44.38	L	C
ATOM	4070	CE2	PHE	L	139	49.153	79.655	-3.432	1.00	46.99	L	C
ATOM	4071	CZ	PHE	L	139	49.685	79.145	-2.293	1.00	46.10	L	C
ATOM	4072	C	PHE	L	139	53.479	78.035	-5.987	1.00	50.74	L	C
ATOM	4073	O	PHE	L	139	52.967	76.992	-5.659	1.00	51.42	L	O
ATOM	4074	N	TYR	L	140	54.743	78.307	-5.712	1.00	50.69	L	N
ATOM	4075	CA	TYR	L	140	55.491	77.532	-4.737	1.00	51.02	L	C
ATOM	4076	CB	TYR	L	140	56.222	76.384	-5.565	1.00	50.21	L	C
ATOM	4077	CG	TYR	L	140	57.032	75.429	-4.718	1.00	50.51	L	C
ATOM	4078	CD1	TYR	L	140	58.310	75.776	-4.260	1.00	50.90	L	C
ATOM	4079	CE1	TYR	L	140	59.070	74.860	-3.430	1.00	51.73	L	C
ATOM	4080	CD2	TYR	L	140	56.489	74.231	-4.313	1.00	50.29	L	C
ATOM	4081	CE2	TYR	L	140	57.189	73.398	-3.442	1.00	49.97	L	C
ATOM	4082	CZ	TYR	L	140	58.482	73.731	-3.033	1.00	50.71	L	C
ATOM	4083	OH	TYR	L	140	59.122	72.903	-2.208	1.00	51.28	L	O
ATOM	4084	C	TYR	L	140	56.515	78.436	-4.108	1.00	52.40	L	C

	ATOM	4085	O	TYR	L	140	57.132	79.318	-4.849	1.00	53.02	L O
	ATOM	4086	N	PRO	L	141	56.914	78.189	-2.837	1.00	53.24	L N
	ATOM	4087	CD	PRO	L	141	58.097	78.906	-2.277	1.00	53.94	L C
	ATOM	4088	CA	PRO	L	141	56.381	77.114	-1.909	1.00	53.82	L C
5	ATOM	4089	CB	PRO	L	141	57.436	77.042	-0.809	1.00	54.17	L C
	ATOM	4090	CG	PRO	L	141	58.112	78.417	-0.784	1.00	54.65	L C
	ATOM	4091	C	PRO	L	141	55.060	77.398	-1.338	1.00	55.01	L C
	ATOM	4092	O	PRO	L	141	54.450	78.370	-1.550	1.00	54.05	L O
	ATOM	4093	N	LYS	L	142	54.522	76.460	-0.588	1.00	56.78	L N
10	ATOM	4094	CA	LYS	L	142	53.103	76.616	-0.029	1.00	58.31	L C
	ATOM	4095	CB	LYS	L	142	52.811	75.335	0.800	1.00	59.20	L C
	ATOM	4096	CG	LYS	L	142	53.687	75.266	2.059	1.00	62.44	L C
	ATOM	4097	CD	LYS	L	142	53.100	74.381	3.213	1.00	66.39	L C
	ATOM	4098	CE	LYS	L	142	53.392	72.900	2.888	1.00	68.80	L C
15	ATOM	4099	NZ	LYS	L	142	52.247	72.069	3.031	1.00	71.04	L N
	ATOM	4100	C	LYS	L	142	52.742	77.846	0.910	1.00	57.77	L C
	ATOM	4101	O	LYS	L	142	51.589	78.219	1.053	1.00	56.47	L O
	ATOM	4102	N	ASP	L	143	53.695	78.301	1.647	1.00	58.64	L N
	ATOM	4103	CA	ASP	L	143	53.509	79.452	2.544	1.00	60.59	L C
20	ATOM	4104	CB	ASP	L	143	54.787	79.662	3.435	1.00	63.72	L C
	ATOM	4105	CG	ASP	L	143	55.369	78.208	3.881	1.00	68.11	L C
	ATOM	4106	OD1	ASP	L	143	54.603	77.551	4.678	1.00	71.23	L O
	ATOM	4107	OD2	ASP	L	143	56.381	77.589	3.350	1.00	68.52	L O
	ATOM	4108	C	ASP	L	143	53.144	80.707	1.777	1.00	59.86	L C
25	ATOM	4109	O	ASP	L	143	53.781	81.100	0.832	1.00	59.91	L O
	ATOM	4110	N	ILE	L	144	51.992	81.227	2.139	1.00	59.20	L N
	ATOM	4111	CA	ILE	L	144	51.460	82.460	1.579	1.00	57.84	L C
	ATOM	4112	CB	ILE	L	144	50.848	82.198	0.240	1.00	57.69	L C
	ATOM	4113	CG2	ILE	L	144	49.495	81.527	0.333	1.00	57.29	L C
30	ATOM	4114	CG1	ILE	L	144	50.459	83.396	-0.447	1.00	56.97	L C
	ATOM	4115	CD1	ILE	L	144	50.218	82.952	-1.999	1.00	58.74	L C
	ATOM	4116	C	ILE	L	144	50.517	83.183	2.516	1.00	57.84	L C
	ATOM	4117	O	ILE	L	144	50.025	82.633	3.447	1.00	57.82	L O
	ATOM	4118	N	ASN	L	145	50.398	84.459	2.352	1.00	58.32	L N
35	ATOM	4119	CA	ASN	L	145	49.474	85.216	3.173	1.00	58.90	L C
	ATOM	4120	CB	ASN	L	145	50.180	85.973	4.384	1.00	61.33	L C
	ATOM	4121	CG	ASN	L	145	50.711	84.960	5.438	1.00	65.53	L C
	ATOM	4122	OD1	ASN	L	145	50.064	84.629	6.562	1.00	67.50	L O
	ATOM	4123	ND2	ASN	L	145	51.803	84.324	5.035	1.00	67.78	L N
40	ATOM	4124	C	ASN	L	145	48.750	86.163	2.315	1.00	58.33	L C
	ATOM	4125	O	ASN	L	145	49.351	86.782	1.573	1.00	57.41	L O
	ATOM	4126	N	VAL	L	146	47.438	86.226	2.478	1.00	57.86	L N
	ATOM	4127	CA	VAL	L	146	46.555	87.234	1.924	1.00	58.06	L C
	ATOM	4128	CB	VAL	L	146	45.303	86.517	1.079	1.00	57.95	L C
45	ATOM	4129	CG1	VAL	L	146	44.307	86.211	1.872	1.00	57.78	L C
	ATOM	4130	CG2	VAL	L	146	44.674	87.508	0.160	1.00	58.46	L C
	ATOM	4131	C	VAL	L	146	45.900	88.252	2.910	1.00	57.64	L C
	ATOM	4132	O	VAL	L	146	45.598	87.920	4.076	1.00	58.21	L O
	ATOM	4133	N	ALA	L	147	45.671	89.436	2.420	1.00	57.33	L N
50	ATOM	4134	CA	ALA	L	147	45.064	90.601	3.176	1.00	57.71	L C
	ATOM	4135	CB	ALA	L	147	46.137	91.686	3.585	1.00	55.87	L C
	ATOM	4136	C	ALA	L	147	44.014	91.255	2.324	1.00	57.31	L C
	ATOM	4137	O	ALA	L	147	44.223	91.499	1.101	1.00	58.04	L O
	ATOM	4138	N	TRP	L	148	42.851	91.453	2.894	1.00	57.87	L N
55	ATOM	4139	CA	TRP	L	148	41.821	92.218	2.236	1.00	58.89	L C
	ATOM	4140	CB	TRP	L	148	40.462	91.584	2.565	1.00	57.33	L C
	ATOM	4141	CG	TRP	L	148	40.288	90.291	1.853	1.00	57.66	L C
	ATOM	4142	CD2	TRP	L	148	39.694	90.085	0.541	1.00	57.55	L C
	ATOM	4143	CE2	TRP	L	148	39.622	88.685	0.329	1.00	57.15	L C
60	ATOM	4144	CE3	TRP	L	148	39.241	90.945	-0.454	1.00	56.56	L C
	ATOM	4145	CD1	TRP	L	148	40.542	89.005	2.371	1.00	58.03	L C

	ATOM	4146	NE1	TRP	L	148	40.157	88.010	1.528	1.00	57.48	L N
	ATOM	4147	CZ2	TRP	L	148	39.105	88.187	-0.854	1.00	56.94	L C
	ATOM	4148	CZ3	TRP	L	148	38.719	90.449	-1.634	1.00	57.22	L C
	ATOM	4149	CH2	TRP	L	148	38.652	89.052	-1.835	1.00	57.66	L C
5	ATOM	4150	C	TRP	L	148	41.859	93.669	2.705	1.00	59.68	L C
	ATOM	4151	O	TRP	L	148	42.073	93.972	3.876	1.00	58.38	L O
	ATOM	4152	N	LYS	L	149	41.705	94.576	1.727	1.00	60.92	L N
	ATOM	4153	CA	LYS	L	149	41.490	95.970	2.071	1.00	62.70	L C
	ATOM	4154	CB	LYS	L	149	42.705	96.770	1.601	1.00	62.73	L C
10	ATOM	4155	CG	LYS	L	149	44.017	96.275	2.216	1.00	65.79	L C
	ATOM	4156	CD	LYS	L	149	45.191	97.199	1.883	1.00	67.30	L C
	ATOM	4157	CE	LYS	L	149	46.310	97.132	2.928	1.00	68.06	L C
	ATOM	4158	NZ	LYS	L	149	47.554	97.631	2.346	1.00	69.75	L N
	ATOM	4159	C	LYS	L	149	40.236	96.513	1.393	1.00	64.55	L C
15	ATOM	4160	O	LYS	L	149	40.083	96.480	0.179	1.00	65.43	L O
	ATOM	4161	N	ILE	L	150	39.297	96.975	2.238	1.00	66.29	L N
	ATOM	4162	CA	ILE	L	150	38.118	97.649	1.709	1.00	68.24	L C
	ATOM	4163	CB	ILE	L	150	36.893	97.082	2.420	1.00	67.61	L C
	ATOM	4164	CG2	ILE	L	150	35.672	97.148	1.483	1.00	66.74	L C
20	ATOM	4165	CG1	ILE	L	150	37.115	95.617	2.807	1.00	68.87	L C
	ATOM	4166	CD1	ILE	L	150	35.801	94.846	2.900	1.00	68.94	L C
	ATOM	4167	C	ILE	L	150	38.190	99.155	1.961	1.00	69.93	L C
	ATOM	4168	O	ILE	L	150	37.920	99.651	3.048	1.00	70.68	L O
	ATOM	4169	N	ASP	L	151	38.614	99.893	0.919	1.00	72.15	L N
25	ATOM	4170	CA	ASP	L	151	38.698	101.335	1.080	1.00	75.11	L C
	ATOM	4171	CB	ASP	L	151	37.330	101.823	1.563	1.00	76.60	L C
	ATOM	4172	CG	ASP	L	151	36.515	102.376	0.400	1.00	78.00	L C
	ATOM	4173	OD1	ASP	L	151	36.903	102.148	-0.744	1.00	80.12	L O
	ATOM	4174	OD2	ASP	L	151	35.490	103.004	0.660	1.00	78.82	L O
30	ATOM	4175	C	ASP	L	151	39.771	101.714	2.116	1.00	76.27	L C
	ATOM	4176	O	ASP	L	151	39.501	102.350	3.129	1.00	77.76	L O
	ATOM	4177	N	GLY	L	152	41.005	101.233	1.858	1.00	76.18	L N
	ATOM	4178	CA	GLY	L	152	42.135	101.650	2.684	1.00	77.99	L C
	ATOM	4179	C	GLY	L	152	42.400	100.699	3.858	1.00	79.58	L C
35	ATOM	4180	O	GLY	L	152	43.497	100.184	4.043	1.00	80.56	L O
	ATOM	4181	N	SER	L	153	41.354	100.501	4.688	1.00	79.95	L N
	ATOM	4182	CA	SER	L	153	41.528	99.673	5.878	1.00	80.24	L C
	ATOM	4183	CB	SER	L	153	40.488	100.083	6.931	1.00	79.86	L C
	ATOM	4184	OG	SER	L	153	39.493	100.915	6.336	1.00	80.56	L O
40	ATOM	4185	C	SER	L	153	41.397	98.186	5.554	1.00	80.28	L C
	ATOM	4186	O	SER	L	153	40.625	97.774	4.697	1.00	79.92	L O
	ATOM	4187	N	GLU	L	154	42.238	97.415	6.271	1.00	80.81	L N
	ATOM	4188	CA	GLU	L	154	42.199	95.956	6.217	1.00	82.01	L C
	ATOM	4189	CB	GLU	L	154	43.431	95.490	7.000	1.00	82.58	L C
45	ATOM	4190	CG	GLU	L	154	43.693	93.986	6.909	1.00	83.88	L C
	ATOM	4191	CD	GLU	L	154	44.934	93.662	7.710	1.00	85.00	L C
	ATOM	4192	OE1	GLU	L	154	45.688	94.573	8.011	1.00	86.24	L O
	ATOM	4193	OE2	GLU	L	154	45.155	92.486	7.989	1.00	85.17	L O
	ATOM	4194	C	GLU	L	154	40.924	95.410	6.889	1.00	82.30	L C
50	ATOM	4195	O	GLU	L	154	40.455	95.942	7.884	1.00	81.97	L O
	ATOM	4196	N	ARG	L	155	40.480	94.338	6.220	1.00	82.65	L N
	ATOM	4197	CA	ARG	L	155	39.515	93.441	6.761	1.00	83.03	L C
	ATOM	4198	CB	ARG	L	155	38.397	93.264	5.785	1.00	83.37	L C
	ATOM	4199	CG	ARG	L	155	37.151	93.965	6.190	1.00	84.92	L C
55	ATOM	4200	CD	ARG	L	155	36.200	93.337	7.238	1.00	86.77	L C
	ATOM	4201	NE	ARG	L	155	34.877	94.025	7.153	1.00	88.25	L N
	ATOM	4202	CZ	ARG	L	155	33.646	93.437	7.146	1.00	88.42	L C
	ATOM	4203	NH1	ARG	L	155	33.464	92.126	7.274	1.00	87.36	L N
	ATOM	4204	NH2	ARG	L	155	32.564	94.209	6.998	1.00	89.76	L N
60	ATOM	4205	C	ARG	L	155	40.140	92.075	7.077	1.00	82.99	L C
	ATOM	4206	O	ARG	L	155	41.035	91.596	6.322	1.00	83.97	L O

	ATOM	4207	N	GLN	L	156	39.666	91.490	8.196	1.00	81.99	L N
	ATOM	4208	CA	GLN	L	156	39.811	90.083	8.655	1.00	80.76	L C
	ATOM	4209	CB	GLN	L	156	40.770	90.099	9.830	1.00	80.72	L C
	ATOM	4210	CG	GLN	L	156	42.232	90.228	9.421	1.00	80.80	L C
5	ATOM	4211	CD	GLN	L	156	43.078	90.931	10.427	1.00	82.05	L C
	ATOM	4212	OE1	GLN	L	156	42.765	92.026	10.846	1.00	82.80	L O
	ATOM	4213	NE2	GLN	L	156	44.169	90.282	10.857	1.00	82.66	L N
	ATOM	4214	C	GLN	L	156	38.459	89.288	8.952	1.00	80.18	L C
	ATOM	4215	O	GLN	L	156	38.334	88.061	8.733	1.00	80.18	L O
10	ATOM	4216	N	ASN	L	157	37.435	90.015	9.341	1.00	78.71	L N
	ATOM	4217	CA	ASN	L	157	36.109	89.487	9.547	1.00	77.03	L C
	ATOM	4218	CB	ASN	L	157	35.300	90.700	10.075	1.00	78.97	L C
	ATOM	4219	CG	ASN	L	157	33.882	90.323	10.592	1.00	80.56	L C
	ATOM	4220	OD1	ASN	L	157	33.573	89.132	10.652	1.00	82.32	L O
15	ATOM	4221	ND2	ASN	L	157	33.032	91.339	10.954	1.00	81.05	L N
	ATOM	4222	C	ASN	L	157	35.380	88.982	8.298	1.00	74.78	L C
	ATOM	4223	O	ASN	L	157	34.967	89.810	7.408	1.00	75.06	L O
	ATOM	4224	N	GLY	L	158	35.103	87.642	8.222	1.00	71.80	L N
	ATOM	4225	CA	GLY	L	158	34.183	87.163	7.173	1.00	67.26	L C
20	ATOM	4226	C	GLY	L	158	35.024	86.671	6.129	1.00	65.35	L C
	ATOM	4227	O	GLY	L	158	34.664	86.616	4.978	1.00	65.64	L O
	ATOM	4228	N	VAL	L	159	36.203	86.316	6.524	1.00	62.86	L N
	ATOM	4229	CA	VAL	L	159	37.256	85.881	5.623	1.00	60.58	L C
	ATOM	4230	CB	VAL	L	159	38.648	86.582	5.757	1.00	60.31	L C
25	ATOM	4231	CG1	VAL	L	159	39.725	85.978	4.872	1.00	57.65	L C
	ATOM	4232	CG2	VAL	L	159	38.678	88.045	5.438	1.00	59.05	L C
	ATOM	4233	C	VAL	L	159	37.506	84.421	5.903	1.00	59.71	L C
	ATOM	4234	O	VAL	L	159	37.844	83.995	7.023	1.00	60.16	L O
	ATOM	4235	N	LEU	L	160	37.374	83.625	4.863	1.00	57.40	L N
30	ATOM	4236	CA	LEU	L	160	37.557	82.157	4.890	1.00	55.89	L C
	ATOM	4237	CB	LEU	L	160	36.153	81.523	4.887	1.00	55.19	L C
	ATOM	4238	CG	LEU	L	160	35.473	81.481	6.386	1.00	55.02	L C
	ATOM	4239	CD1	LEU	L	160	34.081	80.756	6.541	1.00	52.85	L C
	ATOM	4240	CD2	LEU	L	160	36.367	80.947	7.670	1.00	51.54	L C
35	ATOM	4241	C	LEU	L	160	38.467	81.698	3.747	1.00	54.28	L C
	ATOM	4242	O	LEU	L	160	38.156	81.965	2.593	1.00	54.43	L O
	ATOM	4243	N	ASN	L	161	39.609	81.137	4.096	1.00	53.43	L N
	ATOM	4244	CA	ASN	L	161	40.587	80.590	3.258	1.00	53.45	L C
	ATOM	4245	CB	ASN	L	161	41.879	81.051	3.771	1.00	54.82	L C
40	ATOM	4246	CG	ASN	L	161	42.029	82.496	3.642	1.00	56.80	L C
	ATOM	4247	OD1	ASN	L	161	41.519	83.084	2.665	1.00	56.52	L O
	ATOM	4248	ND2	ASN	L	161	42.657	83.091	4.610	1.00	55.21	L N
	ATOM	4249	C	ASN	L	161	40.734	79.081	3.176	1.00	53.57	L C
	ATOM	4250	O	ASN	L	161	40.319	78.384	4.043	1.00	53.48	L O
45	ATOM	4251	N	SER	L	162	41.253	78.571	2.016	1.00	53.97	L N
	ATOM	4252	CA	SER	L	162	41.350	77.148	1.750	1.00	53.68	L C
	ATOM	4253	CB	SER	L	162	39.961	76.646	1.339	1.00	52.18	L C
	ATOM	4254	OG	SER	L	162	40.034	75.376	0.681	1.00	55.01	L O
	ATOM	4255	C	SER	L	162	42.407	76.915	0.696	1.00	54.09	L C
50	ATOM	4256	O	SER	L	162	42.432	77.585	-0.222	1.00	55.23	L O
	ATOM	4257	N	TRP	L	163	43.198	75.906	0.853	1.00	53.72	L N
	ATOM	4258	CA	TRP	L	163	44.378	75.589	0.150	1.00	54.51	L C
	ATOM	4259	CB	TRP	L	163	45.659	75.480	1.064	1.00	57.00	L C
	ATOM	4260	CG	TRP	L	163	46.120	76.734	1.597	1.00	59.37	L C
55	ATOM	4261	CD2	TRP	L	163	45.511	77.432	2.684	1.00	59.95	L C
	ATOM	4262	CE2	TRP	L	163	46.278	78.524	2.950	1.00	61.25	L C
	ATOM	4263	CE3	TRP	L	163	44.475	77.121	3.538	1.00	60.81	L C
	ATOM	4264	CD1	TRP	L	163	47.228	77.427	1.237	1.00	60.45	L C
	ATOM	4265	NE1	TRP	L	163	47.313	78.570	2.022	1.00	62.43	L N
60	ATOM	4266	CZ2	TRP	L	163	46.021	79.336	3.953	1.00	61.48	L C
	ATOM	4267	CZ3	TRP	L	163	44.208	77.956	4.536	1.00	60.93	L C

ATOM	4268	CH2	TRP	L	163	44.941	79.117	4.659	1.00	60.59	L	C
ATOM	4269	C	TRP	L	163	44.152	74.125	-0.338	1.00	53.80	L	C
ATOM	4270	O	TRP	L	163	43.755	73.221	0.367	1.00	53.91	L	O
ATOM	4271	N	THR	L	164	44.639	73.884	-1.511	1.00	52.58	L	N
ATOM	4272	CA	THR	L	164	44.610	72.603	-2.117	1.00	51.82	L	C
ATOM	4273	CB	THR	L	164	44.605	72.750	-3.624	1.00	51.25	L	C
ATOM	4274	OG1	THR	L	164	45.805	73.483	-4.091	1.00	51.26	L	O
ATOM	4275	CG2	THR	L	164	43.400	73.462	-4.131	1.00	50.51	L	C
ATOM	4276	C	THR	L	164	45.845	71.880	-1.815	1.00	51.96	L	C
ATOM	4277	O	THR	L	164	46.712	72.419	-1.359	1.00	52.00	L	O
ATOM	4278	N	ASP	L	165	45.971	70.649	-2.208	1.00	53.05	L	N
ATOM	4279	CA	ASP	L	165	47.165	69.837	-1.993	1.00	53.45	L	C
ATOM	4280	CB	ASP	L	165	46.799	68.360	-1.999	1.00	55.52	L	C
ATOM	4281	CG	ASP	L	165	46.252	67.855	-0.542	1.00	60.07	L	C
ATOM	4282	OD1	ASP	L	165	45.044	67.725	-0.411	1.00	61.03	L	O
ATOM	4283	OD2	ASP	L	165	46.984	67.497	0.454	1.00	63.38	L	O
ATOM	4284	C	ASP	L	165	48.009	70.135	-3.161	1.00	52.57	L	C
ATOM	4285	O	ASP	L	165	47.508	70.595	-4.165	1.00	52.07	L	O
ATOM	4286	N	GLN	L	166	49.223	69.688	-3.087	1.00	50.87	L	N
ATOM	4287	CA	GLN	L	166	50.207	69.825	-4.145	1.00	50.45	L	C
ATOM	4288	CB	GLN	L	166	51.473	69.184	-3.640	1.00	49.06	L	C
ATOM	4289	CG	GLN	L	166	52.576	69.588	-4.484	1.00	50.09	L	C
ATOM	4290	CD	GLN	L	166	53.909	69.326	-4.010	1.00	50.81	L	C
ATOM	4291	OE1	GLN	L	166	54.122	68.377	-3.327	1.00	50.74	L	O
ATOM	4292	NE2	GLN	L	166	54.822	70.264	-4.311	1.00	50.10	L	N
ATOM	4293	C	GLN	L	166	49.653	69.162	-5.444	1.00	51.47	L	C
ATOM	4294	O	GLN	L	166	49.199	68.063	-5.439	1.00	50.46	L	O
ATOM	4295	N	ASP	L	167	49.577	69.901	-6.493	1.00	52.11	L	N
ATOM	4296	CA	ASP	L	167	49.257	69.421	-7.799	1.00	54.31	L	C
ATOM	4297	CB	ASP	L	167	49.503	70.542	-8.785	1.00	56.80	L	C
ATOM	4298	CG	ASP	L	167	48.910	70.248	-10.071	1.00	59.47	L	C
ATOM	4299	OD1	ASP	L	167	47.643	70.442	-10.035	1.00	60.73	L	O
ATOM	4300	OD2	ASP	L	167	49.615	69.742	-11.037	1.00	60.31	L	O
ATOM	4301	C	ASP	L	167	50.249	68.275	-8.167	1.00	55.01	L	C
ATOM	4302	O	ASP	L	167	51.401	68.414	-8.028	1.00	55.28	L	O
ATOM	4303	N	SER	L	168	49.733	67.109	-8.488	1.00	55.89	L	N
ATOM	4304	CA	SER	L	168	50.473	65.926	-9.062	1.00	56.86	L	C
ATOM	4305	CB	SER	L	168	49.570	64.627	-9.158	1.00	56.64	L	C
ATOM	4306	OG	SER	L	168	48.456	65.012	-9.870	1.00	60.89	L	O
ATOM	4307	C	SER	L	168	51.220	66.080	-10.403	1.00	56.36	L	C
ATOM	4308	O	SER	L	168	52.027	65.231	-10.659	1.00	57.56	L	O
ATOM	4309	N	LYS	L	169	51.052	67.158	-11.101	1.00	56.30	L	N
ATOM	4310	CA	LYS	L	169	51.800	67.448	-12.364	1.00	57.59	L	C
ATOM	4311	CB	LYS	L	169	50.798	67.867	-13.469	1.00	59.32	L	C
ATOM	4312	CG	LYS	L	169	49.678	66.849	-13.648	1.00	62.12	L	C
ATOM	4313	CD	LYS	L	169	48.998	66.638	-15.020	1.00	62.52	L	C
ATOM	4314	CE	LYS	L	169	48.225	65.181	-14.949	1.00	64.22	L	C
ATOM	4315	NZ	LYS	L	169	47.154	65.015	-16.011	1.00	63.95	L	N
ATOM	4316	C	LYS	L	169	52.812	68.527	-12.332	1.00	57.97	L	C
ATOM	4317	O	LYS	L	169	53.946	68.201	-12.490	1.00	57.97	L	O
ATOM	4318	N	ASP	L	170	52.446	69.786	-11.987	1.00	57.59	L	N
ATOM	4319	CA	ASP	L	170	53.438	70.868	-11.910	1.00	57.49	L	C
ATOM	4320	CB	ASP	L	170	52.788	72.129	-12.489	1.00	60.30	L	C
ATOM	4321	CG	ASP	L	170	51.710	72.750	-11.564	1.00	62.68	L	C
ATOM	4322	OD1	ASP	L	170	51.622	72.398	-10.321	1.00	65.22	L	O
ATOM	4323	OD2	ASP	L	170	50.896	73.581	-12.024	1.00	62.99	L	O
ATOM	4324	C	ASP	L	170	53.901	71.148	-10.435	1.00	55.90	L	C
ATOM	4325	O	ASP	L	170	54.694	72.062	-10.191	1.00	54.92	L	O
ATOM	4326	N	SER	L	171	53.446	70.339	-9.478	1.00	54.19	L	N
ATOM	4327	CA	SER	L	171	54.038	70.455	-8.108	1.00	53.65	L	C
ATOM	4328	CB	SER	L	171	55.440	70.037	-8.123	1.00	53.17	L	C

	ATOM	4329	OG	SER	L	171	55.708	68.799	-8.882	1.00	54.70	L O
	ATOM	4330	C	SER	L	171	53.876	71.866	-7.423	1.00	52.81	L C
	ATOM	4331	O	SER	L	171	54.596	72.185	-6.436	1.00	51.59	L O
	ATOM	4332	N	THR	L	172	52.826	72.583	-7.840	1.00	51.64	L N
5	ATOM	4333	CA	THR	L	172	52.507	73.877	-7.362	1.00	51.66	L C
	ATOM	4334	CB	THR	L	172	52.052	74.809	-8.372	1.00	51.61	L C
	ATOM	4335	OG1	THR	L	172	50.823	74.383	-8.882	1.00	50.22	L O
	ATOM	4336	CG2	THR	L	172	52.978	75.076	-9.669	1.00	50.29	L C
	ATOM	4337	C	THR	L	172	51.329	73.740	-6.295	1.00	51.43	L C
10	ATOM	4338	O	THR	L	172	50.672	72.688	-6.205	1.00	51.34	L O
	ATOM	4339	N	TYR	L	173	51.051	74.805	-5.587	1.00	51.80	L N
	ATOM	4340	CA	TYR	L	173	49.878	74.930	-4.669	1.00	52.73	L C
	ATOM	4341	CB	TYR	L	173	50.334	75.305	-3.199	1.00	52.74	L C
	ATOM	4342	CG	TYR	L	173	51.209	74.185	-2.606	1.00	52.92	L C
15	ATOM	4343	CD1	TYR	L	173	52.517	74.155	-2.818	1.00	53.07	L C
	ATOM	4344	CE1	TYR	L	173	53.329	73.243	-2.256	1.00	54.80	L C
	ATOM	4345	CD2	TYR	L	173	50.703	73.175	-1.858	1.00	53.06	L C
	ATOM	4346	CE2	TYR	L	173	51.564	72.130	-1.375	1.00	54.56	L C
	ATOM	4347	CZ	TYR	L	173	52.827	72.163	-1.586	1.00	55.24	L C
20	ATOM	4348	OH	TYR	L	173	53.703	71.126	-1.149	1.00	56.41	L O
	ATOM	4349	C	TYR	L	173	48.987	75.983	-5.133	1.00	52.98	L C
	ATOM	4350	O	TYR	L	173	49.387	76.949	-5.773	1.00	52.51	L O
	ATOM	4351	N	SER	L	174	47.778	75.895	-4.636	1.00	54.50	L N
	ATOM	4352	CA	SER	L	174	46.789	76.955	-4.809	1.00	56.59	L C
25	ATOM	4353	CB	SER	L	174	45.898	76.574	-6.002	1.00	56.89	L C
	ATOM	4354	OG	SER	L	174	46.709	76.567	-7.154	1.00	58.41	L O
	ATOM	4355	C	SER	L	174	45.984	77.303	-3.506	1.00	57.56	L C
	ATOM	4356	O	SER	L	174	45.807	76.544	-2.616	1.00	56.52	L O
	ATOM	4357	N	MET	L	175	45.349	78.466	-3.501	1.00	59.39	L N
30	ATOM	4358	CA	MET	L	175	44.637	78.939	-2.408	1.00	60.02	L C
	ATOM	4359	CB	MET	L	175	45.564	79.641	-1.563	1.00	61.65	L C
	ATOM	4360	CG	MET	L	175	45.288	81.039	-1.286	1.00	66.41	L C
	ATOM	4361	SD	MET	L	175	45.001	81.374	0.591	1.00	70.49	L S
	ATOM	4362	CE	MET	L	175	46.271	81.681	0.823	1.00	66.50	L C
35	ATOM	4363	C	MET	L	175	43.567	79.795	-2.863	1.00	59.29	L C
	ATOM	4364	O	MET	L	175	43.680	80.541	-3.860	1.00	59.37	L O
	ATOM	4365	N	SER	L	176	42.433	79.630	-2.237	1.00	58.81	L N
	ATOM	4366	CA	SER	L	176	41.309	80.502	-2.491	1.00	59.10	L C
	ATOM	4367	CB	SER	L	176	40.178	79.712	-2.851	1.00	57.88	L C
40	ATOM	4368	OG	SER	L	176	39.208	80.594	-2.947	1.00	60.69	L O
	ATOM	4369	C	SER	L	176	40.964	81.310	-1.208	1.00	58.48	L C
	ATOM	4370	O	SER	L	176	41.063	80.739	-0.089	1.00	57.99	L O
	ATOM	4371	N	SER	L	177	40.659	82.616	-1.358	1.00	57.20	L N
	ATOM	4372	CA	SER	L	177	40.193	83.440	-0.268	1.00	57.96	L C
45	ATOM	4373	CB	SER	L	177	41.143	84.497	-0.005	1.00	56.59	L C
	ATOM	4374	OG	SER	L	177	40.940	85.208	1.304	1.00	55.06	L O
	ATOM	4375	C	SER	L	177	38.889	84.056	-0.493	1.00	59.67	L C
	ATOM	4376	O	SER	L	177	38.619	84.635	-1.584	1.00	60.67	L O
	ATOM	4377	N	THR	L	178	37.970	83.906	0.453	1.00	60.93	L N
50	ATOM	4378	CA	THR	L	178	36.562	84.391	0.311	1.00	61.57	L C
	ATOM	4379	CB	THR	L	178	35.594	83.260	0.267	1.00	60.58	L C
	ATOM	4380	OG1	THR	L	178	35.763	82.541	-0.937	1.00	62.49	L O
	ATOM	4381	CG2	THR	L	178	34.146	83.762	-0.046	1.00	61.14	L C
	ATOM	4382	C	THR	L	178	36.127	85.364	1.530	1.00	62.36	L C
55	ATOM	4383	O	THR	L	178	36.172	85.057	2.681	1.00	61.84	L O
	ATOM	4384	N	LEU	L	179	35.820	86.606	1.189	1.00	64.02	L N
	ATOM	4385	CA	LEU	L	179	35.321	87.641	2.073	1.00	65.76	L C
	ATOM	4386	CB	LEU	L	179	36.067	88.942	1.769	1.00	66.01	L C
	ATOM	4387	CG	LEU	L	179	35.527	90.141	2.547	1.00	66.63	L C
60	ATOM	4388	CD1	LEU	L	179	35.694	89.990	4.059	1.00	65.10	L C
	ATOM	4389	CD2	LEU	L	179	36.187	91.462	2.151	1.00	66.81	L C

ATOM	4390	C	LEU	L	179	33.808	87.792	1.872	1.00	66.30	L	C
ATOM	4391	O	LEU	L	179	33.328	88.194	0.820	1.00	66.88	L	O
ATOM	4392	N	THR	L	180	33.078	87.369	2.912	1.00	67.93	L	N
ATOM	4393	CA	THR	L	180	31.622	87.393	2.887	1.00	70.66	L	C
ATOM	4394	CB	THR	L	180	31.126	86.066	3.460	1.00	70.36	L	C
ATOM	4395	OG1	THR	L	180	31.691	84.981	2.712	1.00	71.93	L	O
ATOM	4396	CG2	THR	L	180	29.605	85.996	3.378	1.00	71.29	L	C
ATOM	4397	C	THR	L	180	31.088	88.536	3.748	1.00	71.78	L	C
ATOM	4398	O	THR	L	180	31.298	88.594	4.951	1.00	71.49	L	O
ATOM	4399	N	LEU	L	181	30.412	89.505	3.103	1.00	74.20	L	N
ATOM	4400	CA	LEU	L	181	29.918	90.676	3.846	1.00	76.89	L	C
ATOM	4401	CB	LEU	L	181	30.347	91.926	3.052	1.00	75.96	L	C
ATOM	4402	CG	LEU	L	181	31.845	91.902	2.685	1.00	76.56	L	C
ATOM	4403	CD1	LEU	L	181	32.154	92.713	1.419	1.00	76.50	L	C
ATOM	4404	CD2	LEU	L	181	32.736	92.478	3.791	1.00	75.74	L	C
ATOM	4405	C	LEU	L	181	28.381	90.605	4.016	1.00	78.78	L	C
ATOM	4406	O	LEU	L	181	27.828	89.535	4.105	1.00	80.37	L	O
ATOM	4407	N	THR	L	182	27.735	91.706	4.145	1.00	80.95	L	N
ATOM	4408	CA	THR	L	182	26.289	91.915	3.858	1.00	82.33	L	C
ATOM	4409	CB	THR	L	182	25.662	92.615	5.077	1.00	82.13	L	C
ATOM	4410	OG1	THR	L	182	26.674	93.433	5.728	1.00	81.85	L	O
ATOM	4411	CG2	THR	L	182	25.240	91.514	6.082	1.00	82.04	L	C
ATOM	4412	C	THR	L	182	26.237	92.856	2.668	1.00	83.70	L	C
ATOM	4413	O	THR	L	182	27.002	93.774	2.622	1.00	84.91	L	O
ATOM	4414	N	LYS	L	183	25.406	92.658	1.644	1.00	84.68	L	N
ATOM	4415	CA	LYS	L	183	25.737	93.594	0.562	1.00	86.00	L	C
ATOM	4416	CB	LYS	L	183	25.019	93.197	-0.749	1.00	86.72	L	C
ATOM	4417	CG	LYS	L	183	23.499	93.322	-0.752	1.00	86.54	L	C
ATOM	4418	CD	LYS	L	183	23.065	93.995	-2.073	1.00	87.47	L	C
ATOM	4419	CE	LYS	L	183	21.657	93.785	-2.691	1.00	88.10	L	C
ATOM	4420	NZ	LYS	L	183	21.485	94.811	-3.743	1.00	89.02	L	N
ATOM	4421	C	LYS	L	183	25.602	95.056	1.041	1.00	86.08	L	C
ATOM	4422	O	LYS	L	183	26.173	96.024	0.508	1.00	86.38	L	O
ATOM	4423	N	ASP	L	184	24.871	95.158	2.167	1.00	85.81	L	N
ATOM	4424	CA	ASP	L	184	24.500	96.437	2.721	1.00	85.79	L	C
ATOM	4425	CB	ASP	L	184	23.536	96.160	3.897	1.00	87.59	L	C
ATOM	4426	CG	ASP	L	184	23.420	97.349	4.851	1.00	89.93	L	C
ATOM	4427	OD1	ASP	L	184	23.081	98.440	4.386	1.00	90.99	L	O
ATOM	4428	OD2	ASP	L	184	23.484	97.125	6.059	1.00	91.11	L	O
ATOM	4429	C	ASP	L	184	25.756	97.177	3.133	1.00	84.86	L	C
ATOM	4430	O	ASP	L	184	25.888	98.391	2.998	1.00	85.11	L	O
ATOM	4431	N	GLU	L	185	26.696	96.403	3.685	1.00	83.36	L	N
ATOM	4432	CA	GLU	L	185	28.035	96.852	4.008	1.00	82.20	L	C
ATOM	4433	CB	GLU	L	185	28.562	95.839	5.023	1.00	82.08	L	C
ATOM	4434	CG	GLU	L	185	29.993	95.387	4.788	1.00	82.98	L	C
ATOM	4435	CD	GLU	L	185	30.855	96.050	5.830	1.00	83.92	L	C
ATOM	4436	OE1	GLU	L	185	31.322	95.363	6.730	1.00	85.45	L	O
ATOM	4437	OE2	GLU	L	185	30.886	97.277	5.847	1.00	83.51	L	O
ATOM	4438	C	GLU	L	185	28.942	96.888	2.760	1.00	80.93	L	C
ATOM	4439	O	GLU	L	185	29.750	97.781	2.573	1.00	79.31	L	O
ATOM	4440	N	TYR	L	186	28.794	95.847	1.906	1.00	80.68	L	N
ATOM	4441	CA	TYR	L	186	29.502	95.888	0.600	1.00	81.19	L	C
ATOM	4442	CB	TYR	L	186	28.925	94.799	-0.320	1.00	79.74	L	C
ATOM	4443	CG	TYR	L	186	29.431	94.924	-1.735	1.00	79.67	L	C
ATOM	4444	CD1	TYR	L	186	30.784	95.127	-1.986	1.00	79.51	L	C
ATOM	4445	CE1	TYR	L	186	31.300	94.990	-3.274	1.00	78.75	L	C
ATOM	4446	CD2	TYR	L	186	28.587	94.606	-2.809	1.00	79.13	L	C
ATOM	4447	CE2	TYR	L	186	29.094	94.472	-4.091	1.00	78.31	L	C
ATOM	4448	CZ	TYR	L	186	30.439	94.669	-4.334	1.00	77.87	L	C
ATOM	4449	OH	TYR	L	186	30.923	94.670	-5.639	1.00	77.89	L	O
ATOM	4450	C	TYR	L	186	29.290	97.258	-0.011	1.00	81.44	L	C

	ATOM	4451	O	TYR	L	186	30.217	98.023	-0.236	1.00	82.62	L	O
	ATOM	4452	N	GLU	L	187	28.004	97.580	-0.242	1.00	81.21	L	N
	ATOM	4453	CA	GLU	L	187	27.596	98.768	-0.987	1.00	81.63	L	C
	ATOM	4454	CB	GLU	L	187	26.082	98.747	-1.066	1.00	82.22	L	C
5	ATOM	4455	CG	GLU	L	187	25.567	97.889	-2.208	1.00	83.98	L	C
	ATOM	4456	CD	GLU	L	187	24.105	98.198	-2.392	1.00	85.00	L	C
	ATOM	4457	OE1	GLU	L	187	23.363	97.305	-2.767	1.00	84.70	L	O
	ATOM	4458	OE2	GLU	L	187	23.706	99.319	-2.073	1.00	86.06	L	O
	ATOM	4459	C	GLU	L	187	27.993	100.113	-0.356	1.00	80.66	L	C
10	ATOM	4460	O	GLU	L	187	27.543	101.169	-0.784	1.00	80.69	L	O
	ATOM	4461	N	ARG	L	188	28.800	100.085	0.715	1.00	79.90	L	N
	ATOM	4462	CA	ARG	L	188	29.105	101.364	1.347	1.00	79.44	L	C
	ATOM	4463	CB	ARG	L	188	28.945	101.227	2.864	1.00	80.37	L	C
	ATOM	4464	CG	ARG	L	188	27.471	101.291	3.281	1.00	82.71	L	C
15	ATOM	4465	CD	ARG	L	188	27.286	101.669	4.756	1.00	85.06	L	C
	ATOM	4466	NE	ARG	L	188	27.408	100.484	5.612	1.00	85.93	L	N
	ATOM	4467	CZ	ARG	L	188	26.281	99.818	5.932	1.00	86.70	L	C
	ATOM	4468	NH1	ARG	L	188	25.109	100.226	5.477	1.00	86.66	L	N
	ATOM	4469	NH2	ARG	L	188	26.357	98.738	6.716	1.00	86.37	L	N
20	ATOM	4470	C	ARG	L	188	30.493	101.898	0.973	1.00	78.28	L	C
	ATOM	4471	O	ARG	L	188	30.834	103.050	1.208	1.00	79.42	L	O
	ATOM	4472	N	HIS	L	189	31.159	100.835	0.491	1.00	76.81	L	N
	ATOM	4473	CA	HIS	L	189	32.505	101.005	-0.024	1.00	75.77	L	C
	ATOM	4474	CB	HIS	L	189	33.450	100.127	0.793	1.00	76.18	L	C
25	ATOM	4475	CG	HIS	L	189	33.202	100.344	2.259	1.00	75.83	L	C
	ATOM	4476	CD2	HIS	L	189	32.184	99.803	3.049	1.00	75.79	L	C
	ATOM	4477	ND1	HIS	L	189	34.056	101.028	3.062	1.00	76.33	L	N
	ATOM	4478	CE1	HIS	L	189	33.568	100.890	4.306	1.00	76.23	L	C
	ATOM	4479	NE2	HIS	L	189	32.447	100.160	4.329	1.00	76.30	L	N
30	ATOM	4480	C	HIS	L	189	32.567	100.595	-1.488	1.00	74.26	L	C
	ATOM	4481	O	HIS	L	189	31.866	99.713	-1.942	1.00	73.32	L	O
	ATOM	4482	N	ASN	L	190	33.495	101.241	-2.203	1.00	73.22	L	N
	ATOM	4483	CA	ASN	L	190	33.511	101.062	-3.644	1.00	72.28	L	C
	ATOM	4484	CB	ASN	L	190	33.497	102.448	-4.284	1.00	72.27	L	C
35	ATOM	4485	CG	ASN	L	190	33.359	102.314	-5.777	1.00	72.22	L	C
	ATOM	4486	OD1	ASN	L	190	32.582	101.514	-6.291	1.00	72.45	L	O
	ATOM	4487	ND2	ASN	L	190	34.149	103.133	-6.492	1.00	72.27	L	N
	ATOM	4488	C	ASN	L	190	34.749	100.292	-4.083	1.00	71.86	L	C
	ATOM	4489	O	ASN	L	190	34.733	99.519	-5.032	1.00	71.82	L	O
40	ATOM	4490	N	SER	L	191	35.886	100.556	-3.430	1.00	70.48	L	N
	ATOM	4491	CA	SER	L	191	37.231	99.902	-3.668	1.00	69.30	L	C
	ATOM	4492	CB	SER	L	191	38.292	100.968	-3.415	1.00	68.08	L	C
	ATOM	4493	OG	SER	L	191	39.567	100.442	-3.635	1.00	70.37	L	O
	ATOM	4494	C	SER	L	191	37.561	98.593	-2.756	1.00	68.67	L	C
45	ATOM	4495	O	SER	L	191	37.611	98.630	-1.534	1.00	68.74	L	O
	ATOM	4496	N	TYR	L	192	37.721	97.469	-3.426	1.00	67.14	L	N
	ATOM	4497	CA	TYR	L	192	37.945	96.133	-2.841	1.00	66.18	L	C
	ATOM	4498	CB	TYR	L	192	36.809	95.191	-3.337	1.00	64.98	L	C
	ATOM	4499	CG	TYR	L	192	35.577	95.517	-2.560	1.00	65.06	L	C
50	ATOM	4500	CD1	TYR	L	192	34.690	96.498	-3.018	1.00	65.76	L	C
	ATOM	4501	CE1	TYR	L	192	33.532	96.850	-2.250	1.00	65.52	L	C
	ATOM	4502	CD2	TYR	L	192	35.350	95.015	-1.281	1.00	64.44	L	C
	ATOM	4503	CE2	TYR	L	192	34.192	95.424	-0.452	1.00	64.83	L	C
	ATOM	4504	CZ	TYR	L	192	33.299	96.346	-0.960	1.00	65.25	L	C
55	ATOM	4505	OH	TYR	L	192	32.176	96.797	-0.300	1.00	65.93	L	O
	ATOM	4506	C	TYR	L	192	39.239	95.609	-3.407	1.00	65.75	L	C
	ATOM	4507	O	TYR	L	192	39.405	95.510	-4.664	1.00	65.70	L	O
	ATOM	4508	N	THR	L	193	40.182	95.367	-2.565	1.00	64.25	L	N
	ATOM	4509	CA	THR	L	193	41.444	94.833	-2.979	1.00	63.31	L	C
60	ATOM	4510	CB	THR	L	193	42.465	95.898	-2.780	1.00	63.11	L	C
	ATOM	4511	OG1	THR	L	193	42.317	96.829	-3.840	1.00	63.06	L	O

	ATOM	4512	CG2	THR	L	193	43.903	95.300	-2.971	1.00	62.69	L C
	ATOM	4513	C	THR	L	193	41.943	93.531	-2.280	1.00	63.36	L C
	ATOM	4514	O	THR	L	193	41.741	93.343	-1.075	1.00	61.67	L O
	ATOM	4515	N	CYS	L	194	42.588	92.686	-3.059	1.00	63.76	L N
5	ATOM	4516	CA	CYS	L	194	43.220	91.404	-2.686	1.00	64.62	L C
	ATOM	4517	C	CYS	L	194	44.750	91.501	-2.683	1.00	64.56	L C
	ATOM	4518	O	CYS	L	194	45.367	91.725	-3.717	1.00	64.27	L O
	ATOM	4519	CB	CYS	L	194	42.754	90.303	-3.656	1.00	65.84	L C
	ATOM	4520	SG	CYS	L	194	43.253	88.662	-3.082	1.00	69.27	L S
10	ATOM	4521	N	GLU	L	195	45.475	91.101	-1.654	1.00	65.49	L N
	ATOM	4522	CA	GLU	L	195	46.940	91.294	-1.514	1.00	66.37	L C
	ATOM	4523	CB	GLU	L	195	47.313	92.457	-0.485	1.00	67.92	L C
	ATOM	4524	CG	GLU	L	195	47.266	93.904	-1.015	1.00	70.14	L C
	ATOM	4525	CD	GLU	L	195	48.021	94.916	-0.147	1.00	72.46	L C
15	ATOM	4526	OE1	GLU	L	195	48.876	94.560	0.691	1.00	74.03	L O
	ATOM	4527	OE2	GLU	L	195	47.713	96.098	-0.294	1.00	74.44	L O
	ATOM	4528	C	GLU	L	195	47.676	90.065	-1.028	1.00	66.00	L C
	ATOM	4529	O	GLU	L	195	47.530	89.604	0.172	1.00	66.57	L O
	ATOM	4530	N	ALA	L	196	48.631	89.611	-1.891	1.00	65.28	L N
20	ATOM	4531	CA	ALA	L	196	49.251	88.309	-1.699	1.00	64.12	L C
	ATOM	4532	CB	ALA	L	196	49.146	87.584	-2.984	1.00	63.44	L C
	ATOM	4533	C	ALA	L	196	50.644	88.502	-1.252	1.00	64.13	L C
	ATOM	4534	O	ALA	L	196	51.394	89.096	-1.899	1.00	63.42	L O
	ATOM	4535	N	THR	L	197	51.008	88.031	-0.064	1.00	64.82	L N
25	ATOM	4536	CA	THR	L	197	52.389	88.024	0.252	1.00	64.09	L C
	ATOM	4537	CB	THR	L	197	52.652	88.665	1.576	1.00	63.72	L C
	ATOM	4538	OG1	THR	L	197	52.336	90.047	1.434	1.00	64.06	L O
	ATOM	4539	CG2	THR	L	197	54.091	88.660	1.879	1.00	63.15	L C
	ATOM	4540	C	THR	L	197	53.024	86.702	0.070	1.00	64.02	L C
30	ATOM	4541	O	THR	L	197	52.745	85.779	0.788	1.00	64.77	L O
	ATOM	4542	N	HIS	L	198	53.912	86.657	-0.910	1.00	62.84	L N
	ATOM	4543	CA	HIS	L	198	54.764	85.477	-1.189	1.00	61.69	L C
	ATOM	4544	CB	HIS	L	198	54.209	84.821	-2.512	1.00	59.77	L C
	ATOM	4545	CG	HIS	L	198	54.600	83.394	-2.645	1.00	59.10	L C
35	ATOM	4546	CD2	HIS	L	198	54.012	82.226	-2.233	1.00	58.46	L C
	ATOM	4547	ND1	HIS	L	198	55.734	83.035	-3.297	1.00	59.08	L N
	ATOM	4548	CE1	HIS	L	198	55.823	81.697	-3.331	1.00	57.61	L C
	ATOM	4549	NE2	HIS	L	198	54.821	81.190	-2.634	1.00	57.62	L N
	ATOM	4550	C	HIS	L	198	56.291	85.717	-1.302	1.00	61.03	L C
40	ATOM	4551	O	HIS	L	198	56.747	86.720	-1.785	1.00	60.88	L O
	ATOM	4552	N	LYS	L	199	57.048	84.693	-1.083	1.00	60.86	L N
	ATOM	4553	CA	LYS	L	199	58.586	84.708	-1.161	1.00	61.48	L C
	ATOM	4554	CB	LYS	L	199	59.152	83.326	-0.608	1.00	62.55	L C
	ATOM	4555	CG	LYS	L	199	60.165	82.579	-1.411	1.00	65.31	L C
45	ATOM	4556	CD	LYS	L	199	60.614	81.343	-0.633	1.00	67.98	L C
	ATOM	4557	CE	LYS	L	199	62.157	81.071	-0.720	1.00	68.98	L C
	ATOM	4558	NZ	LYS	L	199	62.459	79.587	-1.216	1.00	72.58	L N
	ATOM	4559	C	LYS	L	199	59.215	85.037	-2.499	1.00	60.71	L C
	ATOM	4560	O	LYS	L	199	60.316	85.439	-2.483	1.00	59.15	L O
50	ATOM	4561	N	THR	L	200	58.534	84.770	-3.606	1.00	61.34	L N
	ATOM	4562	CA	THR	L	200	58.889	85.151	-4.867	1.00	62.41	L C
	ATOM	4563	CB	THR	L	200	57.823	84.599	-5.955	1.00	61.98	L C
	ATOM	4564	OG1	THR	L	200	56.492	84.775	-5.459	1.00	61.48	L O
	ATOM	4565	CG2	THR	L	200	57.965	83.103	-6.030	1.00	61.96	L C
55	ATOM	4566	C	THR	L	200	58.937	86.656	-5.003	1.00	63.55	L C
	ATOM	4567	O	THR	L	200	59.287	87.166	-6.033	1.00	63.63	L O
	ATOM	4568	N	SER	L	201	58.552	87.427	-4.027	1.00	65.08	L N
	ATOM	4569	CA	SER	L	201	58.503	88.878	-4.257	1.00	66.77	L C
	ATOM	4570	CB	SER	L	201	57.270	89.284	-5.062	1.00	66.67	L C
60	ATOM	4571	OG	SER	L	201	57.317	90.617	-5.277	1.00	69.81	L O
	ATOM	4572	C	SER	L	201	58.532	89.678	-2.932	1.00	67.89	L C

	ATOM	4573	O	SER	L	201	57.824	89.379	-2.026	1.00	67.63	L O
	ATOM	4574	N	THR	L	202	59.389	90.679	-2.903	1.00	68.99	L N
	ATOM	4575	CA	THR	L	202	59.579	91.609	-1.731	1.00	70.40	L C
	ATOM	4576	CB	THR	L	202	60.789	92.514	-1.942	1.00	70.21	L C
5	ATOM	4577	OG1	THR	L	202	61.001	92.700	-3.363	1.00	71.61	L O
	ATOM	4578	CG2	THR	L	202	62.051	91.770	-1.502	1.00	69.32	L C
	ATOM	4579	C	THR	L	202	58.384	92.492	-1.483	1.00	71.81	L C
	ATOM	4580	O	THR	L	202	58.249	93.078	-0.433	1.00	73.06	L O
	ATOM	4581	N	SER	L	203	57.509	92.620	-2.445	1.00	72.08	L N
10	ATOM	4582	CA	SER	L	203	56.351	93.397	-2.139	1.00	72.51	L C
	ATOM	4583	CB	SER	L	203	56.536	94.788	-2.770	1.00	72.61	L C
	ATOM	4584	OG	SER	L	203	56.840	94.698	-4.173	1.00	73.89	L O
	ATOM	4585	C	SER	L	203	55.109	92.574	-2.642	1.00	73.15	L C
	ATOM	4586	O	SER	L	203	55.060	91.850	-3.730	1.00	73.17	L O
15	ATOM	4587	N	PRO	L	204	54.020	92.809	-1.971	1.00	73.52	L N
	ATOM	4588	CD	PRO	L	204	53.822	93.786	-0.890	1.00	73.68	L C
	ATOM	4589	CA	PRO	L	204	52.764	92.157	-2.391	1.00	73.37	L C
	ATOM	4590	CB	PRO	L	204	51.760	92.891	-1.538	1.00	72.83	L C
	ATOM	4591	CG	PRO	L	204	52.466	94.171	-1.377	1.00	73.10	L C
20	ATOM	4592	C	PRO	L	204	52.319	92.276	-3.827	1.00	73.82	L C
	ATOM	4593	O	PRO	L	204	52.550	93.254	-4.516	1.00	73.65	L O
	ATOM	4594	N	ILE	L	205	51.530	91.345	-4.270	1.00	74.15	L N
	ATOM	4595	CA	ILE	L	205	50.947	91.530	-5.602	1.00	75.21	L C
	ATOM	4596	CB	ILE	L	205	51.131	90.297	-6.391	1.00	75.73	L C
25	ATOM	4597	CG2	ILE	L	205	50.847	89.201	-5.470	1.00	77.35	L C
	ATOM	4598	CG1	ILE	L	205	50.088	90.139	-7.496	1.00	75.81	L C
	ATOM	4599	CD1	ILE	L	205	50.328	88.977	-8.411	1.00	76.36	L C
	ATOM	4600	C	ILE	L	205	49.492	91.850	-5.266	1.00	75.53	L C
	ATOM	4601	O	ILE	L	205	49.112	91.672	-4.177	1.00	76.26	L O
30	ATOM	4602	N	VAL	L	206	48.715	92.491	-6.123	1.00	75.08	L N
	ATOM	4603	CA	VAL	L	206	47.513	93.122	-5.663	1.00	74.71	L C
	ATOM	4604	CB	VAL	L	206	47.697	94.634	-5.144	1.00	74.40	L C
	ATOM	4605	CG1	VAL	L	206	48.952	94.812	-4.282	1.00	73.30	L C
	ATOM	4606	CG2	VAL	L	206	47.699	95.650	-6.301	1.00	74.38	L C
35	ATOM	4607	C	VAL	L	206	46.644	93.211	-6.846	1.00	74.88	L C
	ATOM	4608	O	VAL	L	206	47.071	93.738	-7.786	1.00	75.87	L O
	ATOM	4609	N	LYS	L	207	45.442	92.674	-6.741	1.00	74.58	L N
	ATOM	4610	CA	LYS	L	207	44.292	92.812	-7.622	1.00	74.35	L C
	ATOM	4611	CB	LYS	L	207	43.878	91.401	-8.024	1.00	74.50	L C
40	ATOM	4612	CG	LYS	L	207	44.996	90.736	-8.978	1.00	75.19	L C
	ATOM	4613	CD	LYS	L	207	45.030	91.289	-10.379	1.00	76.53	L C
	ATOM	4614	CE	LYS	L	207	46.336	90.847	-11.268	1.00	77.77	L C
	ATOM	4615	NZ	LYS	L	207	45.764	90.117	-12.435	1.00	79.30	L N
	ATOM	4616	C	LYS	L	207	43.096	93.543	-6.906	1.00	74.45	L C
45	ATOM	4617	O	LYS	L	207	42.827	93.341	-5.709	1.00	73.76	L O
	ATOM	4618	N	SER	L	208	42.406	94.355	-7.676	1.00	74.34	L N
	ATOM	4619	CA	SER	L	208	41.413	95.213	-7.140	1.00	74.67	L C
	ATOM	4620	CB	SER	L	208	41.922	96.636	-6.816	1.00	74.26	L C
	ATOM	4621	OG	SER	L	208	43.125	96.638	-6.088	1.00	75.04	L O
50	ATOM	4622	C	SER	L	208	40.278	95.350	-8.117	1.00	75.12	L C
	ATOM	4623	O	SER	L	208	40.328	94.990	-9.309	1.00	75.07	L O
	ATOM	4624	N	PHE	L	209	39.225	95.930	-7.600	1.00	75.89	L N
	ATOM	4625	CA	PHE	L	209	38.202	96.369	-8.515	1.00	76.68	L C
	ATOM	4626	CB	PHE	L	209	37.392	95.232	-8.946	1.00	75.71	L C
55	ATOM	4627	CG	PHE	L	209	36.442	94.760	-7.934	1.00	76.21	L C
	ATOM	4628	CD1	PHE	L	209	35.288	95.396	-7.710	1.00	76.27	L C
	ATOM	4629	CD2	PHE	L	209	36.650	93.568	-7.240	1.00	76.95	L C
	ATOM	4630	CE1	PHE	L	209	34.321	94.896	-6.848	1.00	76.62	L C
	ATOM	4631	CE2	PHE	L	209	35.650	93.051	-6.385	1.00	76.70	L C
60	ATOM	4632	CZ	PHE	L	209	34.499	93.760	-6.215	1.00	77.30	L C
	ATOM	4633	C	PHE	L	209	37.343	97.346	-7.803	1.00	77.21	L C

	ATOM	4634	O	PHE	L	209	37.380	97.403	-6.577	1.00	76.60	L	O
	ATOM	4635	N	ASN	L	210	36.554	98.038	-8.608	1.00	78.77	L	N
	ATOM	4636	CA	ASN	L	210	35.666	99.132	-8.158	1.00	81.02	L	C
	ATOM	4637	CB	ASN	L	210	36.053	100.417	-8.857	1.00	80.71	L	C
5	ATOM	4638	CG	ASN	L	210	37.168	101.090	-8.158	1.00	81.36	L	C
	ATOM	4639	OD1	ASN	L	210	37.285	100.936	-6.984	1.00	81.95	L	O
	ATOM	4640	ND2	ASN	L	210	38.007	101.840	-8.855	1.00	82.01	L	N
	ATOM	4641	C	ASN	L	210	34.272	98.732	-8.427	1.00	82.34	L	C
	ATOM	4642	O	ASN	L	210	33.977	98.373	-9.515	1.00	82.13	L	O
10	ATOM	4643	N	ARG	L	211	33.422	98.708	-7.429	1.00	84.67	L	N
	ATOM	4644	CA	ARG	L	211	32.091	98.267	-7.731	1.00	87.93	L	C
	ATOM	4645	CB	ARG	L	211	31.303	97.737	-6.518	1.00	88.21	L	C
	ATOM	4646	CG	ARG	L	211	31.279	98.473	-5.284	1.00	88.74	L	C
	ATOM	4647	CD	ARG	L	211	29.975	98.235	-4.336	1.00	89.20	L	C
15	ATOM	4648	NE	ARG	L	211	29.663	99.546	-3.767	1.00	89.87	L	N
	ATOM	4649	CZ	ARG	L	211	28.653	100.289	-4.194	1.00	89.88	L	C
	ATOM	4650	NH1	ARG	L	211	27.680	99.841	-4.984	1.00	90.54	L	N
	ATOM	4651	NH2	ARG	L	211	28.576	101.484	-3.765	1.00	90.60	L	N
	ATOM	4652	C	ARG	L	211	31.240	99.210	-8.590	1.00	90.23	L	C
20	ATOM	4653	O	ARG	L	211	30.298	98.696	-9.159	1.00	90.59	L	O
	ATOM	4654	N	ASN	L	212	31.609	100.529	-8.707	1.00	92.92	L	N
	ATOM	4655	CA	ASN	L	212	31.022	101.615	-9.578	1.00	95.30	L	C
	ATOM	4656	CB	ASN	L	212	31.287	103.060	-8.990	1.00	95.62	L	C
	ATOM	4657	CG	ASN	L	212	32.727	103.685	-9.302	1.00	95.98	L	C
25	ATOM	4658	OD1	ASN	L	212	33.706	102.985	-9.365	1.00	96.57	L	O
	ATOM	4659	ND2	ASN	L	212	32.810	105.038	-9.430	1.00	95.86	L	N
	ATOM	4660	C	ASN	L	212	31.451	101.449	-11.064	1.00	97.04	L	C
	ATOM	4661	O	ASN	L	212	30.838	102.032	-11.978	1.00	97.84	L	O
	ATOM	4662	N	GLU	L	213	32.523	100.647	-11.235	1.00	98.65	L	N
30	ATOM	4663	CA	GLU	L	213	32.879	99.815	-12.407	1.00	100.44	L	C
	ATOM	4664	CB	GLU	L	213	31.669	99.384	-13.335	1.00	101.37	L	C
	ATOM	4665	CG	GLU	L	213	30.708	98.317	-12.739	1.00	103.86	L	C
	ATOM	4666	CD	GLU	L	213	29.293	98.287	-13.389	1.00	105.73	L	C
	ATOM	4667	OE1	GLU	L	213	29.148	98.663	-14.613	1.00	106.92	L	O
35	ATOM	4668	OE2	GLU	L	213	28.311	97.881	-12.696	1.00	106.19	L	O
	ATOM	4669	C	GLU	L	213	34.052	100.491	-13.158	1.00	101.34	L	C
	ATOM	4670	O	GLU	L	213	35.005	101.056	-12.555	1.00	101.24	L	O
	ATOM	4671	OXT	GLU	L	213	34.010	100.451	-14.407	1.00	102.50	L	O
	ATOM	4672	CB	ALA	H	1	39.945	47.058	-15.210	1.00	57.59	H	C
40	ATOM	4673	C	ALA	H	1	39.240	45.311	-13.489	1.00	56.41	H	C
	ATOM	4674	O	ALA	H	1	38.014	45.283	-13.595	1.00	56.03	H	O
	ATOM	4675	N	ALA	H	1	39.647	44.577	-15.546	1.00	58.24	H	N
	ATOM	4676	CA	ALA	H	1	40.167	45.578	-14.643	1.00	57.67	H	C
	ATOM	4677	N	VAL	H	2	39.812	45.198	-12.287	1.00	55.97	H	N
45	ATOM	4678	CA	VAL	H	2	38.982	45.072	-11.168	1.00	55.80	H	C
	ATOM	4679	CB	VAL	H	2	39.847	44.750	-9.932	1.00	55.16	H	C
	ATOM	4680	CG1	VAL	H	2	38.900	44.730	-8.646	1.00	53.68	H	C
	ATOM	4681	CG2	VAL	H	2	40.562	43.232	-10.087	1.00	54.67	H	C
	ATOM	4682	C	VAL	H	2	38.208	46.290	-10.890	1.00	55.96	H	C
50	ATOM	4683	O	VAL	H	2	38.753	47.332	-10.978	1.00	56.13	H	O
	ATOM	4684	N	LYS	H	3	36.979	46.190	-10.426	1.00	55.21	H	N
	ATOM	4685	CA	LYS	H	3	36.214	47.342	-10.003	1.00	54.60	H	C
	ATOM	4686	CB	LYS	H	3	35.313	47.862	-11.046	1.00	56.93	H	C
	ATOM	4687	CG	LYS	H	3	35.974	48.256	-12.313	1.00	61.09	H	C
55	ATOM	4688	CD	LYS	H	3	34.988	48.698	-13.499	1.00	64.16	H	C
	ATOM	4689	CE	LYS	H	3	35.878	48.939	-14.898	1.00	66.47	H	C
	ATOM	4690	NZ	LYS	H	3	35.296	48.156	-16.087	1.00	69.30	H	N
	ATOM	4691	C	LYS	H	3	35.355	47.206	-8.701	1.00	52.89	H	C
	ATOM	4692	O	LYS	H	3	34.716	46.223	-8.522	1.00	53.61	H	O
60	ATOM	4693	N	LEU	H	4	35.271	48.273	-7.924	1.00	50.65	H	N
	ATOM	4694	CA	LEU	H	4	34.437	48.255	-6.746	1.00	49.52	H	C

ATOM	4695	CB	LEU	H	4	35.301	48.009	-5.477	1.00	46.67	H	C
ATOM	4696	CG	LEU	H	4	36.237	46.878	-5.386	1.00	47.93	H	C
ATOM	4697	CD1	LEU	H	4	37.068	46.748	-3.950	1.00	44.50	H	C
ATOM	4698	CD2	LEU	H	4	35.265	45.686	-5.471	1.00	45.14	H	C
ATOM	4699	C	LEU	H	4	33.768	49.504	-6.651	1.00	49.57	H	C
ATOM	4700	O	LEU	H	4	34.443	50.510	-6.706	1.00	49.93	H	O
ATOM	4701	N	VAL	H	5	32.466	49.494	-6.457	1.00	48.58	H	N
ATOM	4702	CA	VAL	H	5	31.680	50.754	-6.411	1.00	48.51	H	C
ATOM	4703	CB	VAL	H	5	30.892	50.955	-7.693	1.00	48.35	H	C
ATOM	4704	CG1	VAL	H	5	30.080	52.257	-7.619	1.00	47.31	H	C
ATOM	4705	CG2	VAL	H	5	31.859	50.919	-8.930	1.00	46.39	H	C
ATOM	4706	C	VAL	H	5	30.742	50.824	-5.191	1.00	48.91	H	C
ATOM	4707	O	VAL	H	5	29.722	50.175	-5.154	1.00	49.48	H	O
ATOM	4708	N	GLU	H	6	31.058	51.695	-4.269	1.00	49.77	H	N
ATOM	4709	CA	GLU	H	6	30.241	51.844	-3.056	1.00	50.87	H	C
ATOM	4710	CB	GLU	H	6	31.120	52.542	-2.043	1.00	50.52	H	C
ATOM	4711	CG	GLU	H	6	32.410	51.720	-1.614	1.00	52.97	H	C
ATOM	4712	CD	GLU	H	6	33.634	52.070	-2.427	1.00	54.93	H	C
ATOM	4713	OE1	GLU	H	6	33.454	52.594	-3.591	1.00	56.24	H	O
ATOM	4714	OE2	GLU	H	6	34.778	51.772	-1.950	1.00	53.24	H	O
ATOM	4715	C	GLU	H	6	29.005	52.674	-3.334	1.00	51.92	H	C
ATOM	4716	O	GLU	H	6	29.006	53.587	-4.190	1.00	53.20	H	O
ATOM	4717	N	SER	H	7	27.949	52.409	-2.617	1.00	52.28	H	N
ATOM	4718	CA	SER	H	7	26.784	53.228	-2.628	1.00	52.15	H	C
ATOM	4719	CB	SER	H	7	25.870	52.850	-3.832	1.00	51.14	H	C
ATOM	4720	OG	SER	H	7	25.351	51.648	-3.702	1.00	52.31	H	O
ATOM	4721	C	SER	H	7	26.041	53.138	-1.335	1.00	52.74	H	C
ATOM	4722	O	SER	H	7	26.407	52.356	-0.512	1.00	52.35	H	O
ATOM	4723	N	GLY	H	8	24.926	53.908	-1.176	1.00	53.91	H	N
ATOM	4724	CA	GLY	H	8	24.156	53.922	0.064	1.00	53.35	H	C
ATOM	4725	C	GLY	H	8	24.571	54.962	1.106	1.00	54.52	H	C
ATOM	4726	O	GLY	H	8	23.988	55.136	2.312	1.00	54.64	H	O
ATOM	4727	N	GLY	H	9	25.549	55.685	0.755	1.00	54.06	H	N
ATOM	4728	CA	GLY	H	9	26.023	56.605	1.797	1.00	55.85	H	C
ATOM	4729	C	GLY	H	9	25.094	57.863	1.926	1.00	56.97	H	C
ATOM	4730	O	GLY	H	9	24.395	58.190	0.985	1.00	58.21	H	O
ATOM	4731	N	GLY	H	10	25.096	58.589	3.054	1.00	56.93	H	N
ATOM	4732	CA	GLY	H	10	24.492	59.891	3.099	1.00	56.30	H	C
ATOM	4733	C	GLY	H	10	24.458	60.322	4.539	1.00	57.22	H	C
ATOM	4734	O	GLY	H	10	25.269	59.948	5.401	1.00	56.37	H	O
ATOM	4735	N	LEU	H	11	23.491	61.158	4.829	1.00	57.88	H	N
ATOM	4736	CA	LEU	H	11	23.324	61.737	6.172	1.00	58.33	H	C
ATOM	4737	CB	LEU	H	11	22.670	63.095	5.971	1.00	57.28	H	C
ATOM	4738	CG	LEU	H	11	22.217	63.874	7.215	1.00	57.41	H	C
ATOM	4739	CD1	LEU	H	11	23.399	64.040	8.105	1.00	56.59	H	C
ATOM	4740	CD2	LEU	H	11	21.634	65.218	6.674	1.00	55.33	H	C
ATOM	4741	C	LEU	H	11	22.422	60.912	7.021	1.00	58.53	H	C
ATOM	4742	O	LEU	H	11	21.366	60.532	6.603	1.00	59.22	H	O
ATOM	4743	N	VAL	H	12	22.718	60.668	8.244	1.00	58.84	H	N
ATOM	4744	CA	VAL	H	12	21.708	59.921	8.963	1.00	59.95	H	C
ATOM	4745	CB	VAL	H	12	22.077	58.487	8.929	1.00	60.75	H	C
ATOM	4746	CG1	VAL	H	12	23.568	58.246	9.447	1.00	60.56	H	C
ATOM	4747	CG2	VAL	H	12	21.161	57.695	9.903	1.00	60.62	H	C
ATOM	4748	C	VAL	H	12	21.774	60.473	10.353	1.00	60.49	H	C
ATOM	4749	O	VAL	H	12	22.697	61.158	10.649	1.00	60.65	H	O
ATOM	4750	N	LYS	H	13	20.834	60.195	11.250	1.00	60.42	H	N
ATOM	4751	CA	LYS	H	13	20.867	60.756	12.646	1.00	59.46	H	C
ATOM	4752	CB	LYS	H	13	19.419	61.034	13.130	1.00	60.98	H	C
ATOM	4753	CG	LYS	H	13	18.779	62.229	12.311	1.00	63.17	H	C
ATOM	4754	CD	LYS	H	13	17.763	63.064	13.154	1.00	65.62	H	C
ATOM	4755	CE	LYS	H	13	17.036	64.154	12.229	1.00	68.26	H	C

	ATOM	4756	NZ	LYS	H	13	16.291	63.244	11.290	1.00	71.07	H	N
	ATOM	4757	C	LYS	H	13	21.481	59.888	13.673	1.00	58.33	H	C
	ATOM	4758	O	LYS	H	13	21.441	58.724	13.546	1.00	58.31	H	O
	ATOM	4759	N	PRO	H	14	22.042	60.411	14.752	1.00	57.07	H	N
5	ATOM	4760	CD	PRO	H	14	22.318	61.869	14.891	1.00	55.75	H	C
	ATOM	4761	CA	PRO	H	14	22.626	59.548	15.802	1.00	56.28	H	C
	ATOM	4762	CB	PRO	H	14	22.995	60.555	16.947	1.00	56.53	H	C
	ATOM	4763	CG	PRO	H	14	23.122	61.877	16.191	1.00	56.41	H	C
	ATOM	4764	C	PRO	H	14	21.666	58.517	16.305	1.00	55.92	H	C
10	ATOM	4765	O	PRO	H	14	20.570	58.933	16.728	1.00	56.88	H	O
	ATOM	4766	N	GLY	H	15	21.993	57.257	16.354	1.00	55.44	H	N
	ATOM	4767	CA	GLY	H	15	20.994	56.241	16.724	1.00	54.88	H	C
	ATOM	4768	C	GLY	H	15	20.484	55.495	15.465	1.00	54.20	H	C
	ATOM	4769	O	GLY	H	15	19.892	54.476	15.544	1.00	54.74	H	O
15	ATOM	4770	N	GLY	H	16	20.699	56.038	14.263	1.00	53.14	H	N
	ATOM	4771	CA	GLY	H	16	19.951	55.543	13.101	1.00	51.86	H	C
	ATOM	4772	C	GLY	H	16	20.773	54.494	12.482	1.00	52.00	H	C
	ATOM	4773	O	GLY	H	16	21.729	53.970	13.145	1.00	51.59	H	O
	ATOM	4774	N	SER	H	17	20.297	54.042	11.307	1.00	53.11	H	N
20	ATOM	4775	CA	SER	H	17	20.774	52.845	10.687	1.00	54.45	H	C
	ATOM	4776	CB	SER	H	17	19.762	51.729	10.752	1.00	54.70	H	C
	ATOM	4777	OG	SER	H	17	20.092	51.111	12.020	1.00	59.63	H	O
	ATOM	4778	C	SER	H	17	20.920	53.091	9.213	1.00	54.40	H	C
	ATOM	4779	O	SER	H	17	20.163	53.853	8.685	1.00	53.44	H	O
25	ATOM	4780	N	LEU	H	18	21.938	52.505	8.621	1.00	54.00	H	N
	ATOM	4781	CA	LEU	H	18	22.072	52.699	7.169	1.00	54.73	H	C
	ATOM	4782	CB	LEU	H	18	22.948	53.926	6.955	1.00	54.70	H	C
	ATOM	4783	CG	LEU	H	18	23.142	54.458	5.572	1.00	56.43	H	C
	ATOM	4784	CD1	LEU	H	18	21.896	55.216	5.078	1.00	56.27	H	C
30	ATOM	4785	CD2	LEU	H	18	24.212	55.423	5.601	1.00	56.44	H	C
	ATOM	4786	C	LEU	H	18	22.774	51.412	6.623	1.00	55.38	H	C
	ATOM	4787	O	LEU	H	18	23.624	50.717	7.374	1.00	56.00	H	O
	ATOM	4788	N	LYS	H	19	22.509	51.140	5.353	1.00	53.52	H	N
	ATOM	4789	CA	LYS	H	19	23.140	50.022	4.821	1.00	53.55	H	C
35	ATOM	4790	CB	LYS	H	19	22.060	48.990	4.581	1.00	56.27	H	C
	ATOM	4791	CG	LYS	H	19	22.453	47.670	3.743	1.00	58.99	H	C
	ATOM	4792	CD	LYS	H	19	21.232	46.615	3.828	1.00	61.93	H	C
	ATOM	4793	CE	LYS	H	19	21.663	45.114	4.237	1.00	63.64	H	C
	ATOM	4794	NZ	LYS	H	19	20.771	44.171	5.226	1.00	65.48	H	N
40	ATOM	4795	C	LYS	H	19	23.871	50.392	3.511	1.00	52.35	H	C
	ATOM	4796	O	LYS	H	19	23.232	50.883	2.474	1.00	50.72	H	O
	ATOM	4797	N	LEU	H	20	25.196	50.059	3.504	1.00	50.39	H	N
	ATOM	4798	CA	LEU	H	20	25.957	50.334	2.258	1.00	49.11	H	C
	ATOM	4799	CB	LEU	H	20	27.361	50.733	2.749	1.00	47.89	H	C
45	ATOM	4800	CG	LEU	H	20	27.439	51.809	3.840	1.00	47.60	H	C
	ATOM	4801	CD1	LEU	H	20	28.979	52.103	4.114	1.00	43.14	H	C
	ATOM	4802	CD2	LEU	H	20	26.682	53.096	3.407	1.00	43.08	H	C
	ATOM	4803	C	LEU	H	20	26.058	49.092	1.342	1.00	48.76	H	C
	ATOM	4804	O	LEU	H	20	25.999	47.926	1.817	1.00	48.50	H	O
50	ATOM	4805	N	SER	H	21	26.446	49.281	0.097	1.00	47.53	H	N
	ATOM	4806	CA	SER	H	21	26.578	48.199	-0.700	1.00	49.80	H	C
	ATOM	4807	CB	SER	H	21	25.230	47.952	-1.286	1.00	49.00	H	C
	ATOM	4808	OG	SER	H	21	24.931	48.983	-2.110	1.00	53.28	H	O
	ATOM	4809	C	SER	H	21	27.727	48.498	-1.651	1.00	50.26	H	C
55	ATOM	4810	O	SER	H	21	28.307	49.642	-1.707	1.00	51.26	H	O
	ATOM	4811	N	CYS	H	22	28.244	47.418	-2.228	1.00	50.61	H	N
	ATOM	4812	CA	CYS	H	22	29.412	47.531	-3.065	1.00	50.77	H	C
	ATOM	4813	C	CYS	H	22	29.346	46.503	-4.180	1.00	50.55	H	C
	ATOM	4814	O	CYS	H	22	29.357	45.322	-3.900	1.00	50.98	H	O
60	ATOM	4815	CB	CYS	H	22	30.761	47.352	-2.238	1.00	51.71	H	C
	ATOM	4816	SG	CYS	H	22	32.242	47.175	-3.280	1.00	54.13	H	S

	ATOM	4817	N	ALA	H	23	29.415	46.993	-5.373	1.00	49.89	H N
	ATOM	4818	CA	ALA	H	23	29.302	46.234	-6.577	1.00	49.03	H C
	ATOM	4819	CB	ALA	H	23	28.614	47.108	-7.567	1.00	47.99	H C
	ATOM	4820	C	ALA	H	23	30.604	45.935	-7.103	1.00	49.69	H C
5	ATOM	4821	O	ALA	H	23	31.277	46.787	-7.604	1.00	51.43	H O
	ATOM	4822	N	ALA	H	24	30.911	44.676	-7.200	1.00	49.14	H N
	ATOM	4823	CA	ALA	H	24	32.207	44.285	-7.697	1.00	48.47	H C
	ATOM	4824	CB	ALA	H	24	32.731	43.140	-6.924	1.00	47.00	H C
	ATOM	4825	C	ALA	H	24	32.143	43.718	-9.135	1.00	48.34	H C
10	ATOM	4826	O	ALA	H	24	31.351	42.919	-9.301	1.00	49.22	H O
	ATOM	4827	N	SER	H	25	33.302	43.766	-9.816	1.00	46.94	H N
	ATOM	4828	CA	SER	H	25	33.438	43.147	-11.075	1.00	45.88	H C
	ATOM	4829	CB	SER	H	25	32.645	44.055	-12.109	1.00	45.88	H C
	ATOM	4830	OG	SER	H	25	33.287	45.345	-12.458	1.00	45.34	H O
15	ATOM	4831	C	SER	H	25	34.889	43.038	-11.463	1.00	45.41	H C
	ATOM	4832	O	SER	H	25	35.874	43.637	-10.835	1.00	43.95	H O
	ATOM	4833	N	GLY	H	26	35.133	42.204	-12.453	1.00	45.42	H N
	ATOM	4834	CA	GLY	H	26	36.533	42.085	-12.885	1.00	44.78	H C
	ATOM	4835	C	GLY	H	26	37.332	41.020	-12.147	1.00	45.64	H C
20	ATOM	4836	O	GLY	H	26	38.405	40.867	-12.358	1.00	47.57	H O
	ATOM	4837	N	PHE	H	27	36.715	40.205	-11.356	1.00	45.58	H N
	ATOM	4838	CA	PHE	H	27	37.357	39.136	-10.671	1.00	46.08	H C
	ATOM	4839	CB	PHE	H	27	38.317	39.699	-9.644	1.00	43.87	H C
	ATOM	4840	CG	PHE	H	27	37.579	40.292	-8.414	1.00	43.88	H C
25	ATOM	4841	CD1	PHE	H	27	37.326	39.512	-7.245	1.00	40.50	H C
	ATOM	4842	CD2	PHE	H	27	37.119	41.532	-8.474	1.00	42.67	H C
	ATOM	4843	CE1	PHE	H	27	36.667	40.059	-6.196	1.00	42.28	H C
	ATOM	4844	CE2	PHE	H	27	36.366	42.142	-7.299	1.00	44.46	H C
	ATOM	4845	CZ	PHE	H	27	36.134	41.425	-6.272	1.00	42.65	H C
30	ATOM	4846	C	PHE	H	27	36.336	38.072	-10.076	1.00	47.08	H C
	ATOM	4847	O	PHE	H	27	35.185	38.307	-9.844	1.00	49.16	H O
	ATOM	4848	N	THR	H	28	36.748	36.820	-9.877	1.00	48.35	H N
	ATOM	4849	CA	THR	H	28	35.813	35.893	-9.410	1.00	50.12	H C
	ATOM	4850	CB	THR	H	28	36.202	34.434	-9.933	1.00	52.14	H C
35	ATOM	4851	OG1	THR	H	28	35.403	33.362	-9.243	1.00	56.55	H O
	ATOM	4852	CG2	THR	H	28	37.402	34.188	-9.641	1.00	53.83	H C
	ATOM	4853	C	THR	H	28	35.514	36.102	-7.818	1.00	49.21	H C
	ATOM	4854	O	THR	H	28	36.115	35.568	-6.977	1.00	49.79	H O
	ATOM	4855	N	PHE	H	29	34.524	36.874	-7.593	1.00	47.72	H N
40	ATOM	4856	CA	PHE	H	29	34.149	37.342	-6.286	1.00	47.97	H C
	ATOM	4857	CB	PHE	H	29	32.787	38.132	-6.445	1.00	47.14	H C
	ATOM	4858	CG	PHE	H	29	32.172	38.691	-5.220	1.00	49.20	H C
	ATOM	4859	CD1	PHE	H	29	32.709	39.718	-4.625	1.00	48.92	H C
	ATOM	4860	CD2	PHE	H	29	31.027	38.144	-4.646	1.00	50.32	H C
45	ATOM	4861	CE1	PHE	H	29	32.193	40.292	-3.574	1.00	49.53	H C
	ATOM	4862	CE2	PHE	H	29	30.519	38.683	-3.472	1.00	51.60	H C
	ATOM	4863	CZ	PHE	H	29	31.069	39.875	-3.036	1.00	50.36	H C
	ATOM	4864	C	PHE	H	29	34.066	36.255	-5.324	1.00	48.25	H C
	ATOM	4865	O	PHE	H	29	34.650	36.405	-4.308	1.00	47.87	H O
50	ATOM	4866	N	ILE	H	30	33.416	35.161	-5.640	1.00	48.05	H N
	ATOM	4867	CA	ILE	H	30	33.240	34.134	-4.657	1.00	48.95	H C
	ATOM	4868	CB	ILE	H	30	32.439	32.942	-5.181	1.00	51.25	H C
	ATOM	4869	CG2	ILE	H	30	31.085	33.450	-5.918	1.00	51.50	H C
	ATOM	4870	CG1	ILE	H	30	33.251	32.358	-6.337	1.00	53.67	H C
55	ATOM	4871	CD1	ILE	H	30	32.533	31.000	-6.629	1.00	56.77	H C
	ATOM	4872	C	ILE	H	30	34.510	33.607	-4.067	1.00	47.10	H C
	ATOM	4873	O	ILE	H	30	34.426	33.078	-2.972	1.00	46.72	H O
	ATOM	4874	N	SER	H	31	35.639	33.649	-4.781	1.00	45.74	H N
	ATOM	4875	CA	SER	H	31	36.879	33.125	-4.259	1.00	46.34	H C
60	ATOM	4876	CB	SER	H	31	37.827	32.857	-5.438	1.00	45.27	H C
	ATOM	4877	OG	SER	H	31	37.519	31.569	-6.102	1.00	47.34	H O

ATOM	4878	C	SER	H	31	37.608	34.041	-3.249	1.00	47.42	H	C
ATOM	4879	O	SER	H	31	38.528	33.582	-2.645	1.00	48.51	H	O
ATOM	4880	N	TYR	H	32	37.258	35.349	-3.166	1.00	46.52	H	N
ATOM	4881	CA	TYR	H	32	37.975	36.322	-2.352	1.00	45.49	H	C
ATOM	4882	CB	TYR	H	32	38.213	37.568	-3.172	1.00	45.29	H	C
ATOM	4883	CG	TYR	H	32	39.251	37.376	-4.152	1.00	47.58	H	C
ATOM	4884	CD1	TYR	H	32	38.922	36.939	-5.514	1.00	46.72	H	C
ATOM	4885	CE1	TYR	H	32	39.847	36.713	-6.359	1.00	47.22	H	C
ATOM	4886	CD2	TYR	H	32	40.590	37.593	-3.856	1.00	47.39	H	C
ATOM	4887	CE2	TYR	H	32	41.530	37.455	-4.906	1.00	49.71	H	C
ATOM	4888	CZ	TYR	H	32	41.051	36.937	-6.187	1.00	49.39	H	C
ATOM	4889	OH	TYR	H	32	41.962	36.800	-7.206	1.00	50.64	H	O
ATOM	4890	C	TYR	H	32	37.216	36.750	-1.113	1.00	44.53	H	C
ATOM	4891	O	TYR	H	32	35.949	36.960	-1.073	1.00	43.26	H	O
ATOM	4892	N	ALA	H	33	37.935	36.900	-0.101	1.00	42.87	H	N
ATOM	4893	CA	ALA	H	33	37.400	37.574	1.210	1.00	42.63	H	C
ATOM	4894	CB	ALA	H	33	38.336	37.424	2.247	1.00	40.21	H	C
ATOM	4895	C	ALA	H	33	37.328	39.121	0.848	1.00	41.98	H	C
ATOM	4896	O	ALA	H	33	38.029	39.563	-0.026	1.00	41.34	H	O
ATOM	4897	N	MET	H	34	36.474	39.866	1.481	1.00	41.20	H	N
ATOM	4898	CA	MET	H	34	36.186	41.225	1.222	1.00	40.63	H	C
ATOM	4899	CB	MET	H	34	34.869	41.292	0.611	1.00	39.10	H	C
ATOM	4900	CG	MET	H	34	34.696	40.629	-0.882	1.00	39.77	H	C
ATOM	4901	SD	MET	H	34	35.784	41.463	-1.994	1.00	45.71	H	S
ATOM	4902	CE	MET	H	34	34.886	42.982	-1.964	1.00	37.92	H	C
ATOM	4903	C	MET	H	34	36.064	41.971	2.628	1.00	41.20	H	C
ATOM	4904	O	MET	H	34	35.792	41.357	3.624	1.00	41.85	H	O
ATOM	4905	N	SER	H	35	36.215	43.285	2.610	1.00	41.11	H	N
ATOM	4906	CA	SER	H	35	36.200	44.080	3.829	1.00	42.00	H	C
ATOM	4907	CB	SER	H	35	37.670	44.280	4.124	1.00	43.05	H	C
ATOM	4908	OG	SER	H	35	38.364	43.036	4.454	1.00	47.79	H	O
ATOM	4909	C	SER	H	35	35.695	45.455	3.673	1.00	41.71	H	C
ATOM	4910	O	SER	H	35	35.720	46.062	2.568	1.00	41.47	H	O
ATOM	4911	N	TRP	H	36	35.278	46.065	4.802	1.00	42.04	H	N
ATOM	4912	CA	TRP	H	36	35.092	47.569	4.846	1.00	40.91	H	C
ATOM	4913	CB	TRP	H	36	33.732	47.837	5.384	1.00	40.20	H	C
ATOM	4914	CG	TRP	H	36	32.757	47.463	4.576	1.00	43.62	H	C
ATOM	4915	CD2	TRP	H	36	32.191	48.141	3.476	1.00	43.80	H	C
ATOM	4916	CE2	TRP	H	36	31.210	47.285	2.887	1.00	45.57	H	C
ATOM	4917	CE3	TRP	H	36	32.313	49.388	2.967	1.00	44.89	H	C
ATOM	4918	CD1	TRP	H	36	32.184	46.211	4.564	1.00	44.58	H	C
ATOM	4919	NE1	TRP	H	36	31.199	46.152	3.621	1.00	44.93	H	N
ATOM	4920	CZ2	TRP	H	36	30.343	47.669	1.841	1.00	46.06	H	C
ATOM	4921	CZ3	TRP	H	36	31.538	49.746	1.866	1.00	47.87	H	C
ATOM	4922	CH2	TRP	H	36	30.542	48.889	1.300	1.00	47.68	H	C
ATOM	4923	C	TRP	H	36	36.263	48.226	5.552	1.00	41.16	H	C
ATOM	4924	O	TRP	H	36	36.743	47.750	6.656	1.00	41.65	H	O
ATOM	4925	N	VAL	H	37	36.709	49.362	5.049	1.00	41.54	H	N
ATOM	4926	CA	VAL	H	37	37.677	50.161	5.817	1.00	41.72	H	C
ATOM	4927	CB	VAL	H	37	39.036	50.109	5.144	1.00	42.37	H	C
ATOM	4928	CG1	VAL	H	37	40.071	51.091	5.876	1.00	39.85	H	C
ATOM	4929	CG2	VAL	H	37	39.663	48.676	5.106	1.00	38.47	H	C
ATOM	4930	C	VAL	H	37	37.199	51.595	5.722	1.00	43.01	H	C
ATOM	4931	O	VAL	H	37	36.995	52.089	4.630	1.00	42.66	H	O
ATOM	4932	N	ARG	H	38	37.228	52.304	6.833	1.00	44.32	H	N
ATOM	4933	CA	ARG	H	38	36.769	53.755	6.812	1.00	44.72	H	C
ATOM	4934	CB	ARG	H	38	35.669	53.856	7.939	1.00	45.50	H	C
ATOM	4935	CG	ARG	H	38	36.084	53.725	9.186	1.00	45.79	H	C
ATOM	4936	CD	ARG	H	38	34.803	53.785	10.025	1.00	45.99	H	C
ATOM	4937	NE	ARG	H	38	35.170	53.623	11.372	1.00	45.09	H	N
ATOM	4938	CZ	ARG	H	38	34.231	53.606	12.437	1.00	47.24	H	C

	ATOM	4939	NH1	ARG	H	38	32.926	53.654	12.247	1.00	45.96	H	N
	ATOM	4940	NH2	ARG	H	38	34.638	53.487	13.675	1.00	45.71	H	N
	ATOM	4941	C	ARG	H	38	37.859	54.745	7.186	1.00	45.98	H	C
	ATOM	4942	O	ARG	H	38	38.903	54.408	7.622	1.00	45.24	H	O
5	ATOM	4943	N	GLN	H	39	37.661	55.979	6.830	1.00	47.04	H	N
	ATOM	4944	CA	GLN	H	39	38.673	56.948	6.926	1.00	47.06	H	C
	ATOM	4945	CB	GLN	H	39	39.308	57.430	5.570	1.00	46.43	H	C
	ATOM	4946	CG	GLN	H	39	40.465	58.409	5.662	1.00	47.08	H	C
	ATOM	4947	CD	GLN	H	39	41.330	58.532	4.518	1.00	47.35	H	C
10	ATOM	4948	OE1	GLN	H	39	40.835	58.575	3.341	1.00	45.83	H	O
	ATOM	4949	NE2	GLN	H	39	42.761	58.615	4.792	1.00	45.77	H	N
	ATOM	4950	C	GLN	H	39	37.956	58.115	7.601	1.00	47.56	H	C
	ATOM	4951	O	GLN	H	39	37.114	58.739	6.919	1.00	47.30	H	O
	ATOM	4952	N	THR	H	40	38.514	58.593	8.660	1.00	48.24	H	N
15	ATOM	4953	CA	THR	H	40	37.841	59.686	9.468	1.00	50.73	H	C
	ATOM	4954	CB	THR	H	40	38.301	59.722	10.851	1.00	50.76	H	C
	ATOM	4955	OG1	THR	H	40	39.707	60.030	10.772	1.00	52.70	H	O
	ATOM	4956	CG2	THR	H	40	38.318	58.470	11.429	1.00	51.20	H	C
	ATOM	4957	C	THR	H	40	38.246	60.985	8.902	1.00	51.36	H	C
20	ATOM	4958	O	THR	H	40	39.059	61.013	8.038	1.00	51.10	H	O
	ATOM	4959	N	PRO	H	41	37.564	62.061	9.296	1.00	52.21	H	N
	ATOM	4960	CD	PRO	H	41	36.295	62.115	10.073	1.00	52.24	H	C
	ATOM	4961	CA	PRO	H	41	37.890	63.382	8.700	1.00	51.01	H	C
	ATOM	4962	CB	PRO	H	41	36.823	64.321	9.370	1.00	51.14	H	C
25	ATOM	4963	CG	PRO	H	41	35.639	63.438	9.554	1.00	50.96	H	C
	ATOM	4964	C	PRO	H	41	39.303	63.781	9.025	1.00	51.27	H	C
	ATOM	4965	O	PRO	H	41	39.846	64.518	8.265	1.00	51.34	H	O
	ATOM	4966	N	GLU	H	42	39.838	63.399	10.184	1.00	50.91	H	N
	ATOM	4967	CA	GLU	H	42	41.210	63.665	10.527	1.00	52.30	H	C
30	ATOM	4968	CB	GLU	H	42	41.532	63.339	12.031	1.00	55.58	H	C
	ATOM	4969	CG	GLU	H	42	40.596	64.039	13.179	1.00	59.66	H	C
	ATOM	4970	CD	GLU	H	42	39.079	63.416	13.163	1.00	62.60	H	C
	ATOM	4971	OE1	GLU	H	42	38.707	62.251	13.758	1.00	63.38	H	O
	ATOM	4972	OE2	GLU	H	42	38.252	63.979	12.323	1.00	64.12	H	O
35	ATOM	4973	C	GLU	H	42	42.073	62.709	9.628	1.00	51.81	H	C
	ATOM	4974	O	GLU	H	42	43.240	62.735	9.742	1.00	52.65	H	O
	ATOM	4975	N	ALA	H	43	41.527	61.853	8.757	1.00	49.44	H	N
	ATOM	4976	CA	ALA	H	43	42.347	61.082	7.706	1.00	48.63	H	C
	ATOM	4977	CB	ALA	H	43	43.348	61.928	6.815	1.00	47.37	H	C
40	ATOM	4978	C	ALA	H	43	43.018	59.830	8.352	1.00	48.33	H	C
	ATOM	4979	O	ALA	H	43	43.689	59.136	7.699	1.00	48.60	H	O
	ATOM	4980	N	ARG	H	44	42.570	59.389	9.572	1.00	47.49	H	N
	ATOM	4981	CA	ARG	H	44	42.889	58.032	9.839	1.00	48.90	H	C
	ATOM	4982	CB	ARG	H	44	42.938	57.885	11.296	1.00	52.09	H	C
45	ATOM	4983	CG	ARG	H	44	44.321	58.813	11.780	1.00	59.28	H	C
	ATOM	4984	CD	ARG	H	44	44.773	58.725	13.290	1.00	62.11	H	C
	ATOM	4985	NE	ARG	H	44	45.692	57.571	13.544	1.00	64.30	H	N
	ATOM	4986	CZ	ARG	H	44	46.987	57.605	13.921	1.00	63.28	H	C
	ATOM	4987	NH1	ARG	H	44	47.689	58.789	14.061	1.00	63.13	H	N
50	ATOM	4988	NH2	ARG	H	44	47.593	56.430	14.154	1.00	63.84	H	N
	ATOM	4989	C	ARG	H	44	42.073	56.938	9.226	1.00	47.27	H	C
	ATOM	4990	O	ARG	H	44	40.898	56.964	9.436	1.00	47.74	H	O
	ATOM	4991	N	LEU	H	45	42.750	55.849	8.788	1.00	44.62	H	N
	ATOM	4992	CA	LEU	H	45	42.201	54.621	8.474	1.00	43.21	H	C
55	ATOM	4993	CB	LEU	H	45	42.979	53.927	7.427	1.00	41.37	H	C
	ATOM	4994	CG	LEU	H	45	43.190	54.958	6.126	1.00	41.08	H	C
	ATOM	4995	CD1	LEU	H	45	44.344	54.453	5.241	1.00	39.01	H	C
	ATOM	4996	CD2	LEU	H	45	42.020	54.769	5.365	1.00	41.28	H	C
	ATOM	4997	C	LEU	H	45	41.890	53.725	9.680	1.00	44.41	H	C
60	ATOM	4998	O	LEU	H	45	42.784	53.297	10.506	1.00	42.31	H	O
	ATOM	4999	N	GLU	H	46	40.653	53.243	9.616	1.00	44.35	H	N

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ATOM   5000  CA  GLU H  46      40.405  52.104  10.572  1.00 46.78      H    C
ATOM   5001  CB  GLU H  46      39.654  52.733  11.793  1.00 48.43      H    C
ATOM   5002  CG  GLU H  46      38.953  51.754  12.667  1.00 52.62      H    C
ATOM   5003  CD  GLU H  46      37.945  52.324  13.608  1.00 56.08      H    C
ATOM   5004  OE1 GLU H  46      37.478  53.515  13.325  1.00 57.26      H    O
ATOM   5005  OE2 GLU H  46      37.788  51.555  14.649  1.00 55.19      H    O
ATOM   5006  C   GLU H  46      39.651  50.915   9.850  1.00 46.71      H    C
ATOM   5007  O   GLU H  46      38.667  51.058   9.176  1.00 46.44      H    O
ATOM   5008  N   TRP H  47      40.175  49.729   9.965  1.00 46.18      H    N
ATOM   5009  CA  TRP H  47      39.466  48.450   9.572  1.00 46.26      H    C
ATOM   5010  CB  TRP H  47      40.340  47.263   9.895  1.00 45.60      H    C
ATOM   5011  CG  TRP H  47      39.694  45.993   9.682  1.00 49.04      H    C
ATOM   5012  CD2 TRP H  47      39.356  45.041  10.644  1.00 49.15      H    C
ATOM   5013  CE2 TRP H  47      38.668  44.028   9.983  1.00 48.82      H    C
ATOM   5014  CE3 TRP H  47      39.556  44.952  12.113  1.00 49.50      H    C
ATOM   5015  CD1 TRP H  47      39.199  45.536   8.452  1.00 47.78      H    C
ATOM   5016  NE1 TRP H  47      38.624  44.341   8.636  1.00 48.17      H    N
ATOM   5017  CZ2 TRP H  47      38.166  42.946  10.626  1.00 49.29      H    C
ATOM   5018  CZ3 TRP H  47      39.025  43.894  12.766  1.00 50.46      H    C
ATOM   5019  CH2 TRP H  47      38.534  42.753  11.972  1.00 49.96      H    C
ATOM   5020  C   TRP H  47      38.178  48.290  10.228  1.00 45.51      H    C
ATOM   5021  O   TRP H  47      38.089  48.496  11.428  1.00 46.18      H    O
ATOM   5022  N   VAL H  48      37.138  48.043   9.468  1.00 45.21      H    N
ATOM   5023  CA  VAL H  48      35.778  48.054   9.961  1.00 46.94      H    C
ATOM   5024  CB  VAL H  48      34.909  49.056   9.097  1.00 46.39      H    C
ATOM   5025  CG1 VAL H  48      33.524  48.931   9.243  1.00 46.00      H    C
ATOM   5026  CG2 VAL H  48      35.317  50.434   9.519  1.00 46.55      H    C
ATOM   5027  C   VAL H  48      35.150  46.594   9.919  1.00 47.74      H    C
ATOM   5028  O   VAL H  48      34.364  46.264  10.742  1.00 48.01      H    O
ATOM   5029  N   ALA H  49      35.430  45.788   8.912  1.00 47.88      H    N
ATOM   5030  CA  ALA H  49      34.934  44.439   9.013  1.00 47.12      H    C
ATOM   5031  CB  ALA H  49      33.393  44.443   9.047  1.00 47.13      H    C
ATOM   5032  C   ALA H  49      35.447  43.653   7.835  1.00 46.52      H    C
ATOM   5033  O   ALA H  49      35.923  44.124   6.750  1.00 46.49      H    O
ATOM   5034  N   SER H  50      35.416  42.374   8.072  1.00 45.97      H    N
ATOM   5035  CA  SER H  50      35.824  41.422   6.964  1.00 45.97      H    C
ATOM   5036  CB  SER H  50      37.267  40.907   7.351  1.00 45.68      H    C
ATOM   5037  OG  SER H  50      38.110  41.991   7.172  1.00 46.90      H    O
ATOM   5038  C   SER H  50      34.842  40.237   6.905  1.00 45.95      H    C
ATOM   5039  O   SER H  50      34.224  39.839   7.964  1.00 46.23      H    O
ATOM   5040  N   ILE H  51      34.740  39.574   5.746  1.00 44.35      H    N
ATOM   5041  CA  ILE H  51      34.061  38.321   5.575  1.00 43.41      H    C
ATOM   5042  CB  ILE H  51      32.647  38.545   4.897  1.00 42.37      H    C
ATOM   5043  CG2 ILE H  51      32.703  39.310   3.471  1.00 40.16      H    C
ATOM   5044  CG1 ILE H  51      31.811  37.239   4.824  1.00 41.84      H    C
ATOM   5045  CD1 ILE H  51      30.240  37.456   4.666  1.00 41.59      H    C
ATOM   5046  C   ILE H  51      34.881  37.441   4.640  1.00 44.63      H    C
ATOM   5047  O   ILE H  51      35.403  38.002   3.596  1.00 44.42      H    O
ATOM   5048  N   SER H  52      35.147  36.126   5.074  1.00 44.47      H    N
ATOM   5049  CA  SER H  52      35.938  35.254   4.277  1.00 47.09      H    C
ATOM   5050  CB  SER H  52      36.368  34.010   5.034  1.00 46.84      H    C
ATOM   5051  OG  SER H  52      35.231  33.304   5.485  1.00 47.85      H    O
ATOM   5052  C   SER H  52      35.147  34.674   3.019  1.00 47.49      H    C
ATOM   5053  O   SER H  52      33.926  34.918   2.875  1.00 45.99      H    O
ATOM   5054  N   SER H  53      35.865  33.884   2.201  1.00 49.05      H    N
ATOM   5055  CA  SER H  53      35.209  33.375   0.894  1.00 49.67      H    C
ATOM   5056  CB  SER H  53      36.168  32.723  -0.041  1.00 49.00      H    C
ATOM   5057  OG  SER H  53      36.770  31.610   0.686  1.00 50.01      H    O
ATOM   5058  C   SER H  53      34.185  32.332   1.448  1.00 50.73      H    C
ATOM   5059  O   SER H  53      33.092  32.140   0.880  1.00 51.07      H    O
ATOM   5060  N   GLY H  54      34.403  31.912   2.647  1.00 51.03      H    N
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ATOM	5061	CA	GLY	H	54	33.540	30.925	3.220	1.00	52.23	H	C
ATOM	5062	C	GLY	H	54	32.454	31.432	4.040	1.00	53.84	H	C
ATOM	5063	O	GLY	H	54	31.664	30.683	4.614	1.00	54.98	H	O
ATOM	5064	N	GLY	H	55	32.326	32.712	4.172	1.00	53.92	H	N
ATOM	5065	CA	GLY	H	55	31.281	33.279	5.125	1.00	55.93	H	C
ATOM	5066	C	GLY	H	55	31.653	33.592	6.603	1.00	56.90	H	C
ATOM	5067	O	GLY	H	55	30.829	34.053	7.401	1.00	59.08	H	O
ATOM	5068	N	ASN	H	56	32.901	33.390	7.042	1.00	56.97	H	N
ATOM	5069	CA	ASN	H	56	33.241	33.813	8.376	1.00	56.87	H	C
ATOM	5070	CB	ASN	H	56	34.641	33.311	8.686	1.00	58.57	H	C
ATOM	5071	CG	ASN	H	56	34.848	31.707	8.674	1.00	60.80	H	C
ATOM	5072	OD1	ASN	H	56	35.948	31.265	8.259	1.00	62.91	H	O
ATOM	5073	ND2	ASN	H	56	33.932	30.944	9.202	1.00	58.88	H	N
ATOM	5074	C	ASN	H	56	33.328	35.349	8.488	1.00	56.17	H	C
ATOM	5075	O	ASN	H	56	33.756	35.993	7.536	1.00	56.06	H	O
ATOM	5076	N	THR	H	57	32.945	35.940	9.651	1.00	55.51	H	N
ATOM	5077	CA	THR	H	57	32.817	37.327	9.817	1.00	53.59	H	C
ATOM	5078	CB	THR	H	57	31.419	37.838	10.158	1.00	53.48	H	C
ATOM	5079	OG1	THR	H	57	30.924	37.625	11.595	1.00	52.48	H	O
ATOM	5080	CG2	THR	H	57	30.394	37.337	9.249	1.00	51.25	H	C
ATOM	5081	C	THR	H	57	33.855	37.740	10.893	1.00	53.43	H	C
ATOM	5082	O	THR	H	57	34.062	37.063	11.883	1.00	52.41	H	O
ATOM	5083	N	TYR	H	58	34.453	38.887	10.713	1.00	52.67	H	N
ATOM	5084	CA	TYR	H	58	35.398	39.398	11.668	1.00	52.76	H	C
ATOM	5085	CB	TYR	H	58	36.725	39.194	11.145	1.00	52.49	H	C
ATOM	5086	CG	TYR	H	58	37.059	37.850	10.726	1.00	53.52	H	C
ATOM	5087	CD1	TYR	H	58	36.701	37.420	9.504	1.00	53.54	H	C
ATOM	5088	CE1	TYR	H	58	37.013	36.257	9.099	1.00	53.11	H	C
ATOM	5089	CD2	TYR	H	58	37.868	37.014	11.533	1.00	53.39	H	C
ATOM	5090	CE2	TYR	H	58	38.229	35.741	11.070	1.00	54.38	H	C
ATOM	5091	CZ	TYR	H	58	37.748	35.425	9.790	1.00	54.35	H	C
ATOM	5092	OH	TYR	H	58	38.058	34.221	9.344	1.00	54.85	H	O
ATOM	5093	C	TYR	H	58	35.244	40.926	11.935	1.00	53.04	H	C
ATOM	5094	O	TYR	H	58	35.056	41.671	10.975	1.00	53.44	H	O
ATOM	5095	N	TYR	H	59	35.267	41.325	13.182	1.00	52.51	H	N
ATOM	5096	CA	TYR	H	59	34.990	42.745	13.523	1.00	52.95	H	C
ATOM	5097	CB	TYR	H	59	33.538	43.018	14.083	1.00	52.90	H	C
ATOM	5098	CG	TYR	H	59	32.418	42.555	13.081	1.00	55.00	H	C
ATOM	5099	CD1	TYR	H	59	31.791	41.335	13.231	1.00	54.89	H	C
ATOM	5100	CE1	TYR	H	59	30.867	40.833	12.405	1.00	54.80	H	C
ATOM	5101	CD2	TYR	H	59	31.997	43.323	12.072	1.00	54.68	H	C
ATOM	5102	CE2	TYR	H	59	31.049	42.822	11.166	1.00	55.81	H	C
ATOM	5103	CZ	TYR	H	59	30.494	41.541	11.353	1.00	55.91	H	C
ATOM	5104	OH	TYR	H	59	29.437	41.021	10.587	1.00	56.18	H	O
ATOM	5105	C	TYR	H	59	35.873	43.285	14.582	1.00	52.14	H	C
ATOM	5106	O	TYR	H	59	36.170	42.528	15.501	1.00	52.61	H	O
ATOM	5107	N	PRO	H	60	36.301	44.578	14.540	1.00	51.10	H	N
ATOM	5108	CD	PRO	H	60	35.948	45.627	13.547	1.00	50.32	H	C
ATOM	5109	CA	PRO	H	60	36.979	45.185	15.733	1.00	51.29	H	C
ATOM	5110	CB	PRO	H	60	37.619	46.481	15.123	1.00	50.61	H	C
ATOM	5111	CG	PRO	H	60	36.550	46.883	14.122	1.00	49.50	H	C
ATOM	5112	C	PRO	H	60	35.908	45.651	16.792	1.00	52.20	H	C
ATOM	5113	O	PRO	H	60	34.753	45.912	16.527	1.00	51.38	H	O
ATOM	5114	N	ASP	H	61	36.342	45.820	18.000	1.00	53.47	H	N
ATOM	5115	CA	ASP	H	61	35.405	46.214	19.161	1.00	54.77	H	C
ATOM	5116	CB	ASP	H	61	36.206	46.275	20.452	1.00	55.46	H	C
ATOM	5117	CG	ASP	H	61	36.538	44.902	20.885	1.00	57.77	H	C
ATOM	5118	OD1	ASP	H	61	37.403	44.611	21.711	1.00	58.30	H	O
ATOM	5119	OD2	ASP	H	61	35.804	44.026	20.420	1.00	58.83	H	O
ATOM	5120	C	ASP	H	61	34.655	47.507	19.054	1.00	54.65	H	C
ATOM	5121	O	ASP	H	61	33.545	47.569	19.547	1.00	54.74	H	O

	ATOM	5122	N	SER	H	62	35.102	48.381	18.162	1.00	54.82	H	N
	ATOM	5123	CA	SER	H	62	34.543	49.676	17.993	1.00	56.32	H	C
	ATOM	5124	CB	SER	H	62	35.638	50.516	17.192	1.00	57.39	H	C
	ATOM	5125	OG	SER	H	62	35.889	50.046	15.798	1.00	59.78	H	O
5	ATOM	5126	C	SER	H	62	33.163	49.619	17.362	1.00	56.10	H	C
	ATOM	5127	O	SER	H	62	32.468	50.520	17.414	1.00	55.34	H	O
	ATOM	5128	N	VAL	H	63	32.900	48.597	16.552	1.00	56.41	H	N
	ATOM	5129	CA	VAL	H	63	31.699	48.386	15.847	1.00	56.65	H	C
	ATOM	5130	CB	VAL	H	63	31.890	48.550	14.285	1.00	55.76	H	C
10	ATOM	5131	CG1	VAL	H	63	32.652	49.663	14.056	1.00	54.30	H	C
	ATOM	5132	CG2	VAL	H	63	32.541	47.342	13.662	1.00	53.71	H	C
	ATOM	5133	C	VAL	H	63	31.043	46.946	16.075	1.00	57.66	H	C
	ATOM	5134	O	VAL	H	63	29.946	46.678	15.567	1.00	57.57	H	O
	ATOM	5135	N	LYS	H	64	31.674	46.040	16.780	1.00	58.60	H	N
15	ATOM	5136	CA	LYS	H	64	31.037	44.767	17.007	1.00	60.19	H	C
	ATOM	5137	CB	LYS	H	64	31.873	43.826	17.908	1.00	61.48	H	C
	ATOM	5138	CG	LYS	H	64	31.453	42.283	17.741	1.00	62.93	H	C
	ATOM	5139	CD	LYS	H	64	32.299	41.554	18.817	1.00	64.36	H	C
	ATOM	5140	CE	LYS	H	64	31.942	40.092	19.153	1.00	65.73	H	C
20	ATOM	5141	NZ	LYS	H	64	32.876	39.344	20.203	1.00	65.45	H	N
	ATOM	5142	C	LYS	H	64	29.648	44.855	17.722	1.00	60.59	H	C
	ATOM	5143	O	LYS	H	64	29.431	45.586	18.780	1.00	62.28	H	O
	ATOM	5144	N	GLY	H	65	28.729	44.105	17.128	1.00	59.72	H	N
	ATOM	5145	CA	GLY	H	65	27.365	44.166	17.600	1.00	58.63	H	C
25	ATOM	5146	C	GLY	H	65	26.533	45.288	17.147	1.00	58.62	H	C
	ATOM	5147	O	GLY	H	65	25.347	45.340	17.462	1.00	59.10	H	O
	ATOM	5148	N	ARG	H	66	27.108	46.269	16.463	1.00	57.07	H	N
	ATOM	5149	CA	ARG	H	66	26.280	47.247	15.780	1.00	55.77	H	C
	ATOM	5150	CB	ARG	H	66	26.729	48.647	16.112	1.00	55.31	H	C
30	ATOM	5151	CG	ARG	H	66	26.990	48.903	17.660	1.00	53.21	H	C
	ATOM	5152	CD	ARG	H	66	27.229	50.369	17.891	1.00	51.58	H	C
	ATOM	5153	NE	ARG	H	66	28.570	50.742	17.594	1.00	49.37	H	N
	ATOM	5154	CZ	ARG	H	66	28.931	51.813	16.823	1.00	50.26	H	C
	ATOM	5155	NH1	ARG	H	66	28.037	52.565	16.279	1.00	48.61	H	N
35	ATOM	5156	NH2	ARG	H	66	30.200	52.124	16.519	1.00	49.64	H	N
	ATOM	5157	C	ARG	H	66	26.389	47.081	14.297	1.00	55.54	H	C
	ATOM	5158	O	ARG	H	66	25.503	47.441	13.635	1.00	55.80	H	O
	ATOM	5159	N	PHE	H	67	27.482	46.545	13.757	1.00	54.92	H	N
	ATOM	5160	CA	PHE	H	67	27.672	46.501	12.322	1.00	54.62	H	C
40	ATOM	5161	CB	PHE	H	67	29.029	47.046	11.863	1.00	55.55	H	C
	ATOM	5162	CG	PHE	H	67	29.137	48.569	11.794	1.00	56.18	H	C
	ATOM	5163	CD1	PHE	H	67	28.315	49.397	12.535	1.00	54.88	H	C
	ATOM	5164	CD2	PHE	H	67	30.137	49.156	11.059	1.00	55.35	H	C
	ATOM	5165	CE1	PHE	H	67	28.498	50.731	12.493	1.00	56.55	H	C
45	ATOM	5166	CE2	PHE	H	67	30.283	50.503	11.012	1.00	55.27	H	C
	ATOM	5167	CZ	PHE	H	67	29.510	51.315	11.687	1.00	55.25	H	C
	ATOM	5168	C	PHE	H	67	27.636	45.083	11.915	1.00	54.09	H	C
	ATOM	5169	O	PHE	H	67	27.967	44.187	12.703	1.00	53.47	H	O
	ATOM	5170	N	THR	H	68	27.185	44.863	10.716	1.00	53.47	H	N
50	ATOM	5171	CA	THR	H	68	27.043	43.466	10.208	1.00	54.52	H	C
	ATOM	5172	CB	THR	H	68	25.623	42.863	10.372	1.00	55.50	H	C
	ATOM	5173	OG1	THR	H	68	25.227	42.726	11.744	1.00	56.18	H	O
	ATOM	5174	CG2	THR	H	68	25.626	41.324	9.847	1.00	54.74	H	C
	ATOM	5175	C	THR	H	68	27.369	43.493	8.681	1.00	54.03	H	C
55	ATOM	5176	O	THR	H	68	26.825	44.268	8.008	1.00	54.00	H	O
	ATOM	5177	N	ILE	H	69	28.418	42.758	8.312	1.00	52.81	H	N
	ATOM	5178	CA	ILE	H	69	28.871	42.515	6.903	1.00	51.48	H	C
	ATOM	5179	CB	ILE	H	69	30.530	42.476	6.854	1.00	51.28	H	C
	ATOM	5180	CG2	ILE	H	69	31.062	41.283	7.479	1.00	50.24	H	C
60	ATOM	5181	CG1	ILE	H	69	31.035	42.606	5.358	1.00	49.67	H	C
	ATOM	5182	CD1	ILE	H	69	32.613	42.801	5.195	1.00	49.96	H	C

ATOM	5183	C	ILE	H	69	28.280	41.291	6.305	1.00	51.26	H	C
ATOM	5184	O	ILE	H	69	28.204	40.323	7.025	1.00	52.09	H	O
ATOM	5185	N	SER	H	70	27.863	41.288	5.093	1.00	50.56	H	N
ATOM	5186	CA	SER	H	70	27.401	40.072	4.393	1.00	51.41	H	C
ATOM	5187	CB	SER	H	70	25.909	40.011	4.459	1.00	50.53	H	C
ATOM	5188	OG	SER	H	70	25.366	41.376	4.072	1.00	51.90	H	O
ATOM	5189	C	SER	H	70	27.707	40.193	2.895	1.00	51.69	H	C
ATOM	5190	O	SER	H	70	28.045	41.274	2.444	1.00	51.39	H	O
ATOM	5191	N	ARG	H	71	27.528	39.135	2.133	1.00	51.78	H	N
ATOM	5192	CA	ARG	H	71	27.821	39.220	0.685	1.00	51.92	H	C
ATOM	5193	CB	ARG	H	71	29.163	38.500	0.369	1.00	50.83	H	C
ATOM	5194	CG	ARG	H	71	29.280	37.000	0.946	1.00	48.57	H	C
ATOM	5195	CD	ARG	H	71	30.574	36.465	0.945	1.00	47.03	H	C
ATOM	5196	NE	ARG	H	71	31.331	36.661	-0.344	1.00	43.91	H	N
ATOM	5197	CZ	ARG	H	71	32.635	36.759	-0.514	1.00	44.40	H	C
ATOM	5198	NH1	ARG	H	71	33.443	36.645	0.485	1.00	44.25	H	N
ATOM	5199	NH2	ARG	H	71	33.137	36.861	-1.721	1.00	42.99	H	N
ATOM	5200	C	ARG	H	71	26.794	38.435	0.008	1.00	52.40	H	C
ATOM	5201	O	ARG	H	71	26.269	37.442	0.575	1.00	52.00	H	O
ATOM	5202	N	ASP	H	72	26.636	38.752	-1.253	1.00	53.22	H	N
ATOM	5203	CA	ASP	H	72	25.750	38.087	-2.065	1.00	54.30	H	C
ATOM	5204	CB	ASP	H	72	24.706	39.144	-2.484	1.00	57.72	H	C
ATOM	5205	CG	ASP	H	72	23.581	38.605	-3.544	1.00	61.26	H	C
ATOM	5206	OD1	ASP	H	72	23.881	37.685	-4.373	1.00	61.12	H	O
ATOM	5207	OD2	ASP	H	72	22.466	39.184	-3.613	1.00	63.54	H	O
ATOM	5208	C	ASP	H	72	26.491	37.583	-3.244	1.00	53.96	H	C
ATOM	5209	O	ASP	H	72	26.756	38.360	-4.270	1.00	54.68	H	O
ATOM	5210	N	ASN	H	73	26.711	36.267	-3.230	1.00	53.35	H	N
ATOM	5211	CA	ASN	H	73	27.576	35.773	-4.308	1.00	53.42	H	C
ATOM	5212	CB	ASN	H	73	28.264	34.501	-3.899	1.00	52.96	H	C
ATOM	5213	CG	ASN	H	73	29.163	34.664	-2.695	1.00	54.63	H	C
ATOM	5214	OD1	ASN	H	73	29.674	35.743	-2.461	1.00	56.11	H	O
ATOM	5215	ND2	ASN	H	73	29.245	33.639	-1.842	1.00	53.97	H	N
ATOM	5216	C	ASN	H	73	27.010	35.722	-5.731	1.00	52.70	H	C
ATOM	5217	O	ASN	H	73	27.701	35.344	-6.643	1.00	52.43	H	O
ATOM	5218	N	ALA	H	74	25.709	35.801	-5.830	1.00	53.07	H	N
ATOM	5219	CA	ALA	H	74	24.963	35.601	-7.134	1.00	53.76	H	C
ATOM	5220	CB	ALA	H	74	23.449	35.164	-6.989	1.00	52.82	H	C
ATOM	5221	C	ALA	H	74	25.048	36.940	-7.773	1.00	53.98	H	C
ATOM	5222	O	ALA	H	74	25.137	37.023	-8.944	1.00	54.91	H	O
ATOM	5223	N	ARG	H	75	24.946	37.960	-6.946	1.00	53.48	H	N
ATOM	5224	CA	ARG	H	75	25.028	39.266	-7.416	1.00	53.84	H	C
ATOM	5225	CB	ARG	H	75	23.861	40.024	-6.712	1.00	56.70	H	C
ATOM	5226	CG	ARG	H	75	22.486	39.956	-7.445	1.00	57.90	H	C
ATOM	5227	CD	ARG	H	75	21.361	40.798	-6.811	1.00	60.38	H	C
ATOM	5228	NE	ARG	H	75	20.699	39.885	-5.884	1.00	64.88	H	N
ATOM	5229	CZ	ARG	H	75	19.499	39.426	-5.935	1.00	65.98	H	C
ATOM	5230	NH1	ARG	H	75	18.646	39.712	-6.877	1.00	67.53	H	N
ATOM	5231	NH2	ARG	H	75	19.147	38.611	-5.004	1.00	68.48	H	N
ATOM	5232	C	ARG	H	75	26.355	40.070	-7.320	1.00	53.01	H	C
ATOM	5233	O	ARG	H	75	26.491	41.234	-7.849	1.00	51.34	H	O
ATOM	5234	N	ASN	H	76	27.361	39.476	-6.669	1.00	51.72	H	N
ATOM	5235	CA	ASN	H	76	28.632	40.121	-6.510	1.00	50.79	H	C
ATOM	5236	CB	ASN	H	76	29.315	40.254	-7.918	1.00	50.88	H	C
ATOM	5237	CG	ASN	H	76	29.731	38.958	-8.434	1.00	51.70	H	C
ATOM	5238	OD1	ASN	H	76	30.392	38.820	-9.470	1.00	50.64	H	O
ATOM	5239	ND2	ASN	H	76	29.563	37.982	-7.603	1.00	52.12	H	N
ATOM	5240	C	ASN	H	76	28.444	41.544	-5.865	1.00	49.22	H	C
ATOM	5241	O	ASN	H	76	29.086	42.494	-6.227	1.00	47.56	H	O
ATOM	5242	N	ILE	H	77	27.729	41.553	-4.754	1.00	47.69	H	N
ATOM	5243	CA	ILE	H	77	27.579	42.653	-3.929	1.00	47.93	H	C

ATOM	5244	CB	ILE	H	77	26.126	43.102	-3.973	1.00	47.80	H	C
ATOM	5245	CG2	ILE	H	77	26.040	44.411	-3.140	1.00	48.14	H	C
ATOM	5246	CG1	ILE	H	77	25.721	43.638	-5.331	1.00	46.37	H	C
ATOM	5247	CD1	ILE	H	77	24.173	43.842	-5.549	1.00	45.88	H	C
ATOM	5248	C	ILE	H	77	27.998	42.386	-2.487	1.00	48.54	H	C
ATOM	5249	O	ILE	H	77	27.825	41.270	-1.957	1.00	48.81	H	O
ATOM	5250	N	LEU	H	78	28.610	43.389	-1.863	1.00	47.84	H	N
ATOM	5251	CA	LEU	H	78	29.059	43.294	-0.509	1.00	48.57	H	C
ATOM	5252	CB	LEU	H	78	30.563	43.649	-0.495	1.00	48.73	H	C
ATOM	5253	CG	LEU	H	78	31.088	43.596	0.929	1.00	47.67	H	C
ATOM	5254	CD1	LEU	H	78	31.187	42.158	1.519	1.00	47.04	H	C
ATOM	5255	CD2	LEU	H	78	32.365	44.371	1.207	1.00	47.57	H	C
ATOM	5256	C	LEU	H	78	28.299	44.319	0.352	1.00	49.21	H	C
ATOM	5257	O	LEU	H	78	27.826	45.315	-0.052	1.00	50.45	H	O
ATOM	5258	N	TYR	H	79	28.035	44.033	1.553	1.00	50.75	H	N
ATOM	5259	CA	TYR	H	79	27.177	44.855	2.317	1.00	52.06	H	C
ATOM	5260	CB	TYR	H	79	25.742	44.140	2.498	1.00	53.35	H	C
ATOM	5261	CG	TYR	H	79	24.871	43.972	1.172	1.00	55.87	H	C
ATOM	5262	CD1	TYR	H	79	24.578	42.710	0.663	1.00	56.51	H	C
ATOM	5263	CE1	TYR	H	79	23.735	42.556	-0.481	1.00	57.98	H	C
ATOM	5264	CD2	TYR	H	79	24.374	45.043	0.491	1.00	55.72	H	C
ATOM	5265	CE2	TYR	H	79	23.572	44.882	-0.639	1.00	56.31	H	C
ATOM	5266	CZ	TYR	H	79	23.247	43.650	-1.054	1.00	58.45	H	C
ATOM	5267	OH	TYR	H	79	22.609	43.533	-2.252	1.00	60.12	H	O
ATOM	5268	C	TYR	H	79	27.702	45.191	3.633	1.00	52.15	H	C
ATOM	5269	O	TYR	H	79	28.365	44.358	4.266	1.00	51.25	H	O
ATOM	5270	N	LEU	H	80	27.289	46.360	4.152	1.00	52.18	H	N
ATOM	5271	CA	LEU	H	80	27.608	46.718	5.521	1.00	52.72	H	C
ATOM	5272	CB	LEU	H	80	28.802	47.563	5.493	1.00	51.05	H	C
ATOM	5273	CG	LEU	H	80	29.222	48.078	6.905	1.00	52.44	H	C
ATOM	5274	CD1	LEU	H	80	29.699	46.925	7.713	1.00	53.20	H	C
ATOM	5275	CD2	LEU	H	80	30.226	49.254	7.078	1.00	51.80	H	C
ATOM	5276	C	LEU	H	80	26.405	47.402	6.180	1.00	53.63	H	C
ATOM	5277	O	LEU	H	80	25.923	48.431	5.665	1.00	53.00	H	O
ATOM	5278	N	GLN	H	81	25.772	46.703	7.112	1.00	54.52	H	N
ATOM	5279	CA	GLN	H	81	24.604	47.215	7.836	1.00	55.69	H	C
ATOM	5280	CB	GLN	H	81	23.568	46.125	8.221	1.00	56.62	H	C
ATOM	5281	CG	GLN	H	81	22.383	46.533	9.127	1.00	58.33	H	C
ATOM	5282	CD	GLN	H	81	21.423	47.264	8.251	1.00	60.67	H	C
ATOM	5283	OE1	GLN	H	81	20.972	46.664	7.278	1.00	62.49	H	O
ATOM	5284	NE2	GLN	H	81	21.387	48.608	8.375	1.00	60.55	H	N
ATOM	5285	C	GLN	H	81	25.055	47.763	9.110	1.00	56.82	H	C
ATOM	5286	O	GLN	H	81	25.683	46.975	9.959	1.00	57.61	H	O
ATOM	5287	N	MET	H	82A	24.641	48.995	9.331	1.00	58.28	H	N
ATOM	5288	CA	MET	H	82A	25.021	49.784	10.484	1.00	60.26	H	C
ATOM	5289	CB	MET	H	82A	25.707	51.079	10.003	1.00	61.16	H	C
ATOM	5290	CG	MET	H	82A	26.924	50.877	9.024	1.00	62.89	H	C
ATOM	5291	SD	MET	H	82A	27.898	52.390	8.755	1.00	64.38	H	S
ATOM	5292	CE	MET	H	82A	27.091	52.775	7.376	1.00	62.45	H	C
ATOM	5293	C	MET	H	82A	23.826	50.254	11.264	1.00	60.42	H	C
ATOM	5294	O	MET	H	82A	22.829	50.795	10.702	1.00	60.13	H	O
ATOM	5295	N	SER	H	82B	24.011	50.199	12.556	1.00	60.07	H	N
ATOM	5296	CA	SER	H	82B	22.880	50.393	13.477	1.00	60.49	H	C
ATOM	5297	CB	SER	H	82B	22.140	49.048	13.727	1.00	59.10	H	C
ATOM	5298	OG	SER	H	82B	22.902	48.287	14.714	1.00	61.61	H	O
ATOM	5299	C	SER	H	82B	23.449	51.108	14.761	1.00	60.67	H	C
ATOM	5300	O	SER	H	82B	24.669	51.138	14.980	1.00	61.39	H	O
ATOM	5301	N	SER	H	82C	22.635	51.846	15.459	1.00	60.07	H	N
ATOM	5302	CA	SER	H	82C	23.174	52.808	16.498	1.00	61.07	H	C
ATOM	5303	CB	SER	H	82C	23.475	52.032	17.784	1.00	61.29	H	C
ATOM	5304	OG	SER	H	82C	22.619	50.931	17.720	1.00	60.87	H	O

ATOM	5305	C	SER	H	82C	24.377	53.608	16.154	1.00	61.65	H	C
ATOM	5306	O	SER	H	82C	25.334	53.623	16.938	1.00	61.63	H	O
ATOM	5307	N	LEU	H	82D	24.353	54.235	14.971	1.00	61.41	H	N
ATOM	5308	CA	LEU	H	82D	25.433	55.102	14.508	1.00	61.72	H	C
ATOM	5309	CB	LEU	H	82D	24.979	55.739	13.156	1.00	60.37	H	C
ATOM	5310	CG	LEU	H	82D	24.975	54.687	12.069	1.00	59.24	H	C
ATOM	5311	CD1	LEU	H	82D	24.386	55.079	10.897	1.00	57.43	H	C
ATOM	5312	CD2	LEU	H	82D	26.461	54.225	11.718	1.00	58.39	H	C
ATOM	5313	C	LEU	H	82D	25.685	56.273	15.489	1.00	62.71	H	C
ATOM	5314	O	LEU	H	82D	24.718	56.901	15.988	1.00	64.10	H	O
ATOM	5315	N	ARG	H	83	26.928	56.521	15.850	1.00	63.66	H	N
ATOM	5316	CA	ARG	H	83	27.286	57.669	16.671	1.00	64.35	H	C
ATOM	5317	CB	ARG	H	83	28.035	57.275	17.953	1.00	64.30	H	C
ATOM	5318	CG	ARG	H	83	28.089	55.693	18.182	1.00	67.33	H	C
ATOM	5319	CD	ARG	H	83	28.592	55.263	19.516	1.00	69.20	H	C
ATOM	5320	NE	ARG	H	83	28.362	53.883	19.942	1.00	72.23	H	N
ATOM	5321	CZ	ARG	H	83	29.251	52.934	19.924	1.00	73.34	H	C
ATOM	5322	NH1	ARG	H	83	30.408	53.145	19.356	1.00	73.99	H	N
ATOM	5323	NH2	ARG	H	83	28.944	51.726	20.407	1.00	74.45	H	N
ATOM	5324	C	ARG	H	83	28.077	58.597	15.795	1.00	64.00	H	C
ATOM	5325	O	ARG	H	83	28.564	58.169	14.720	1.00	63.76	H	O
ATOM	5326	N	SER	H	84	28.296	59.837	16.310	1.00	63.40	H	N
ATOM	5327	CA	SER	H	84	29.007	60.906	15.511	1.00	62.90	H	C
ATOM	5328	CB	SER	H	84	29.129	62.220	16.249	1.00	62.76	H	C
ATOM	5329	OG	SER	H	84	29.598	61.963	17.500	1.00	64.95	H	O
ATOM	5330	C	SER	H	84	30.367	60.434	15.059	1.00	62.17	H	C
ATOM	5331	O	SER	H	84	30.796	60.790	13.908	1.00	62.05	H	O
ATOM	5332	N	GLU	H	85	31.008	59.642	15.944	1.00	60.48	H	N
ATOM	5333	CA	GLU	H	85	32.356	59.037	15.635	1.00	59.67	H	C
ATOM	5334	CB	GLU	H	85	32.818	58.098	16.798	1.00	59.83	H	C
ATOM	5335	CG	GLU	H	85	32.602	58.833	17.959	1.00	63.33	H	C
ATOM	5336	CD	GLU	H	85	31.403	58.378	18.752	1.00	64.36	H	C
ATOM	5337	OE1	GLU	H	85	31.387	57.224	19.125	1.00	65.15	H	O
ATOM	5338	OE2	GLU	H	85	30.602	59.226	19.061	1.00	66.28	H	O
ATOM	5339	C	GLU	H	85	32.385	58.092	14.494	1.00	58.39	H	C
ATOM	5340	O	GLU	H	85	33.412	57.539	14.307	1.00	59.02	H	O
ATOM	5341	N	ASP	H	86	31.253	57.774	13.908	1.00	56.08	H	N
ATOM	5342	CA	ASP	H	86	31.158	56.814	12.864	1.00	54.11	H	C
ATOM	5343	CB	ASP	H	86	29.880	55.991	13.036	1.00	55.33	H	C
ATOM	5344	CG	ASP	H	86	30.017	54.951	14.084	1.00	57.05	H	C
ATOM	5345	OD1	ASP	H	86	29.030	54.963	14.834	1.00	58.36	H	O
ATOM	5346	OD2	ASP	H	86	31.050	54.210	14.375	1.00	55.58	H	O
ATOM	5347	C	ASP	H	86	31.243	57.475	11.489	1.00	52.34	H	C
ATOM	5348	O	ASP	H	86	31.339	56.836	10.413	1.00	50.01	H	O
ATOM	5349	N	THR	H	87	31.286	58.783	11.579	1.00	49.59	H	N
ATOM	5350	CA	THR	H	87	31.325	59.669	10.417	1.00	48.63	H	C
ATOM	5351	CB	THR	H	87	31.069	61.194	10.922	1.00	48.91	H	C
ATOM	5352	OG1	THR	H	87	29.737	61.382	11.522	1.00	50.30	H	O
ATOM	5353	CG2	THR	H	87	31.250	62.306	9.903	1.00	48.84	H	C
ATOM	5354	C	THR	H	87	32.614	59.471	9.751	1.00	47.71	H	C
ATOM	5355	O	THR	H	87	33.651	59.598	10.363	1.00	45.93	H	O
ATOM	5356	N	ALA	H	88	32.525	59.243	8.444	1.00	45.98	H	N
ATOM	5357	CA	ALA	H	88	33.696	58.816	7.656	1.00	44.66	H	C
ATOM	5358	CB	ALA	H	88	34.219	57.705	8.177	1.00	43.85	H	C
ATOM	5359	C	ALA	H	88	33.423	58.565	6.266	1.00	44.68	H	C
ATOM	5360	O	ALA	H	88	32.260	58.442	5.872	1.00	45.79	H	O
ATOM	5361	N	MET	H	89	34.498	58.433	5.474	1.00	44.08	H	N
ATOM	5362	CA	MET	H	89	34.488	57.827	4.173	1.00	43.11	H	C
ATOM	5363	CB	MET	H	89	35.704	58.347	3.419	1.00	43.90	H	C
ATOM	5364	CG	MET	H	89	35.662	57.806	1.922	1.00	45.35	H	C
ATOM	5365	SD	MET	H	89	34.197	58.351	0.916	1.00	50.54	H	S

ATOM	5366	CE	MET	H	89	34.716	59.894	0.371	1.00	45.97	H	C
ATOM	5367	C	MET	H	89	34.666	56.305	4.331	1.00	44.27	H	C
ATOM	5368	O	MET	H	89	35.591	55.858	4.896	1.00	44.18	H	O
ATOM	5369	N	TYR	H	90	33.626	55.528	4.007	1.00	43.97	H	N
ATOM	5370	CA	TYR	H	90	33.576	54.059	4.051	1.00	43.93	H	C
ATOM	5371	CB	TYR	H	90	32.153	53.648	4.374	1.00	42.74	H	C
ATOM	5372	CG	TYR	H	90	31.822	53.774	5.899	1.00	42.49	H	C
ATOM	5373	CD1	TYR	H	90	32.069	52.770	6.771	1.00	42.71	H	C
ATOM	5374	CE1	TYR	H	90	31.778	52.890	8.105	1.00	41.99	H	C
ATOM	5375	CD2	TYR	H	90	31.543	54.970	6.446	1.00	41.28	H	C
ATOM	5376	CE2	TYR	H	90	31.376	55.175	7.823	1.00	41.04	H	C
ATOM	5377	CZ	TYR	H	90	31.502	54.125	8.653	1.00	41.54	H	C
ATOM	5378	OH	TYR	H	90	31.430	54.157	10.018	1.00	41.11	H	O
ATOM	5379	C	TYR	H	90	34.061	53.435	2.663	1.00	44.56	H	C
ATOM	5380	O	TYR	H	90	33.501	53.708	1.596	1.00	44.77	H	O
ATOM	5381	N	TYR	H	91	35.160	52.733	2.666	1.00	42.96	H	N
ATOM	5382	CA	TYR	H	91	35.638	52.127	1.436	1.00	43.91	H	C
ATOM	5383	CB	TYR	H	91	37.214	52.315	1.356	1.00	42.41	H	C
ATOM	5384	CG	TYR	H	91	37.761	53.729	1.202	1.00	43.94	H	C
ATOM	5385	CD1	TYR	H	91	38.374	54.490	2.259	1.00	41.91	H	C
ATOM	5386	CE1	TYR	H	91	38.708	55.820	2.057	1.00	44.39	H	C
ATOM	5387	CD2	TYR	H	91	37.789	54.267	-0.090	1.00	42.91	H	C
ATOM	5388	CE2	TYR	H	91	38.185	55.415	-0.312	1.00	45.60	H	C
ATOM	5389	CZ	TYR	H	91	38.807	56.203	0.666	1.00	46.11	H	C
ATOM	5390	OH	TYR	H	91	39.168	57.455	0.214	1.00	50.45	H	O
ATOM	5391	C	TYR	H	91	35.356	50.634	1.438	1.00	44.70	H	C
ATOM	5392	O	TYR	H	91	35.516	49.860	2.407	1.00	43.09	H	O
ATOM	5393	N	CYS	H	92	35.128	50.127	0.237	1.00	45.69	H	N
ATOM	5394	CA	CYS	H	92	35.005	48.670	0.074	1.00	46.10	H	C
ATOM	5395	C	CYS	H	92	36.380	48.319	-0.337	1.00	44.52	H	C
ATOM	5396	O	CYS	H	92	36.965	48.974	-1.220	1.00	43.72	H	O
ATOM	5397	CB	CYS	H	92	34.031	48.498	-1.175	1.00	47.38	H	C
ATOM	5398	SG	CYS	H	92	33.784	46.885	-1.690	1.00	56.06	H	S
ATOM	5399	N	ALA	H	93	36.773	47.126	-0.042	1.00	43.35	H	N
ATOM	5400	CA	ALA	H	93	38.079	46.581	-0.608	1.00	43.49	H	C
ATOM	5401	CB	ALA	H	93	39.256	46.935	0.540	1.00	41.94	H	C
ATOM	5402	C	ALA	H	93	38.022	45.117	-0.627	1.00	43.78	H	C
ATOM	5403	O	ALA	H	93	37.485	44.409	0.487	1.00	45.34	H	O
ATOM	5404	N	ARG	H	94	38.862	44.628	-1.461	1.00	43.45	H	N
ATOM	5405	CA	ARG	H	94	39.053	43.214	-1.645	1.00	44.26	H	C
ATOM	5406	CB	ARG	H	94	39.576	42.862	-3.109	1.00	45.24	H	C
ATOM	5407	CG	ARG	H	94	39.501	41.398	-3.350	1.00	46.44	H	C
ATOM	5408	CD	ARG	H	94	39.929	40.954	-4.994	1.00	47.28	H	C
ATOM	5409	NE	ARG	H	94	41.337	40.997	-5.159	1.00	49.70	H	N
ATOM	5410	CZ	ARG	H	94	41.991	40.672	-6.278	1.00	50.40	H	C
ATOM	5411	NH1	ARG	H	94	41.357	40.531	-7.402	1.00	50.46	H	N
ATOM	5412	NH2	ARG	H	94	43.276	40.565	-6.311	1.00	46.10	H	N
ATOM	5413	C	ARG	H	94	40.201	42.746	-0.761	1.00	44.81	H	C
ATOM	5414	O	ARG	H	94	41.240	43.215	-0.817	1.00	45.02	H	O
ATOM	5415	N	LEU	H	95	39.932	41.776	0.081	1.00	44.55	H	N
ATOM	5416	CA	LEU	H	95	40.997	41.445	1.189	1.00	43.74	H	C
ATOM	5417	CB	LEU	H	95	40.289	41.191	2.470	1.00	41.49	H	C
ATOM	5418	CG	LEU	H	95	41.121	40.420	3.541	1.00	42.09	H	C
ATOM	5419	CD1	LEU	H	95	42.374	41.237	3.739	1.00	43.97	H	C
ATOM	5420	CD2	LEU	H	95	40.120	40.347	4.728	1.00	43.57	H	C
ATOM	5421	C	LEU	H	95	41.584	40.263	0.804	1.00	44.13	H	C
ATOM	5422	O	LEU	H	95	40.903	39.281	0.740	1.00	46.03	H	O
ATOM	5423	N	ASP	H	96	42.765	40.367	0.208	1.00	44.89	H	N
ATOM	5424	CA	ASP	H	96	43.557	39.273	-0.364	1.00	45.30	H	C
ATOM	5425	CB	ASP	H	96	44.541	39.676	-1.408	1.00	44.92	H	C
ATOM	5426	CG	ASP	H	96	43.888	40.051	-2.741	1.00	48.16	H	C

	ATOM	5427	OD1	ASP	H	96	42.729	40.535	-2.757	1.00	48.56	H	O
	ATOM	5428	OD2	ASP	H	96	44.526	40.125	-3.840	1.00	49.25	H	O
	ATOM	5429	C	ASP	H	96	44.212	38.427	0.600	1.00	46.33	H	C
	ATOM	5430	O	ASP	H	96	44.551	37.315	0.197	1.00	48.00	H	O
5	ATOM	5431	N	GLY	H	97	44.145	38.748	1.933	1.00	46.28	H	N
	ATOM	5432	CA	GLY	H	97	44.662	37.905	2.935	1.00	45.80	H	C
	ATOM	5433	C	GLY	H	97	45.751	38.577	3.889	1.00	46.63	H	C
	ATOM	5434	O	GLY	H	97	46.433	39.510	3.487	1.00	45.58	H	O
	ATOM	5435	N	TYR	H	98	45.867	38.104	5.140	1.00	45.50	H	N
10	ATOM	5436	CA	TYR	H	98	46.921	38.596	5.940	1.00	45.67	H	C
	ATOM	5437	CB	TYR	H	98	46.875	38.006	7.336	1.00	44.72	H	C
	ATOM	5438	CG	TYR	H	98	47.032	36.530	7.385	1.00	45.01	H	C
	ATOM	5439	CD1	TYR	H	98	48.216	35.953	7.805	1.00	45.57	H	C
	ATOM	5440	CE1	TYR	H	98	48.418	34.646	7.739	1.00	46.45	H	C
15	ATOM	5441	CD2	TYR	H	98	46.007	35.760	7.288	1.00	43.79	H	C
	ATOM	5442	CE2	TYR	H	98	46.089	34.336	7.473	1.00	45.14	H	C
	ATOM	5443	CZ	TYR	H	98	47.319	33.809	7.701	1.00	45.97	H	C
	ATOM	5444	OH	TYR	H	98	47.439	32.515	7.945	1.00	47.02	H	O
	ATOM	5445	C	TYR	H	98	48.298	38.576	5.350	1.00	45.31	H	C
20	ATOM	5446	O	TYR	H	98	49.096	39.334	5.817	1.00	46.71	H	O
	ATOM	5447	N	TYR	H	99	48.587	37.714	4.324	1.00	44.78	H	N
	ATOM	5448	CA	TYR	H	99	49.812	37.624	3.630	1.00	43.31	H	C
	ATOM	5449	CB	TYR	H	99	50.227	36.082	3.153	1.00	45.33	H	C
	ATOM	5450	CG	TYR	H	99	50.752	35.176	4.285	1.00	47.93	H	C
25	ATOM	5451	CD1	TYR	H	99	51.868	35.548	5.007	1.00	49.06	H	C
	ATOM	5452	CE1	TYR	H	99	52.254	34.855	6.073	1.00	50.83	H	C
	ATOM	5453	CD2	TYR	H	99	49.982	34.050	4.801	1.00	48.72	H	C
	ATOM	5454	CE2	TYR	H	99	50.422	33.286	5.787	1.00	50.56	H	C
	ATOM	5455	CZ	TYR	H	99	51.532	33.716	6.501	1.00	51.08	H	C
30	ATOM	5456	OH	TYR	H	99	51.955	32.910	7.410	1.00	50.59	H	O
	ATOM	5457	C	TYR	H	99	49.829	38.483	2.360	1.00	41.57	H	C
	ATOM	5458	O	TYR	H	99	50.880	38.715	1.772	1.00	42.24	H	O
	ATOM	5459	N	PHE	H	100A	48.735	38.962	1.875	1.00	41.19	H	N
	ATOM	5460	CA	PHE	H	100A	48.715	39.844	0.745	1.00	41.39	H	C
35	ATOM	5461	CB	PHE	H	100A	47.950	39.136	-0.406	1.00	41.14	H	C
	ATOM	5462	CG	PHE	H	100A	48.520	37.790	-0.721	1.00	40.31	H	C
	ATOM	5463	CD1	PHE	H	100A	48.087	36.764	-0.162	1.00	39.72	H	C
	ATOM	5464	CD2	PHE	H	100A	49.650	37.668	-1.444	1.00	39.59	H	C
	ATOM	5465	CE1	PHE	H	100A	48.687	35.463	-0.394	1.00	40.58	H	C
40	ATOM	5466	CE2	PHE	H	100A	50.144	36.420	-1.925	1.00	41.22	H	C
	ATOM	5467	CZ	PHE	H	100A	49.756	35.288	-1.187	1.00	41.75	H	C
	ATOM	5468	C	PHE	H	100A	48.163	41.269	0.851	1.00	41.09	H	C
	ATOM	5469	O	PHE	H	100A	48.322	42.037	-0.071	1.00	40.97	H	O
	ATOM	5470	N	GLY	H	100B	47.429	41.627	1.883	1.00	41.60	H	N
45	ATOM	5471	CA	GLY	H	100B	46.918	43.013	2.046	1.00	40.67	H	C
	ATOM	5472	C	GLY	H	100B	45.530	43.259	1.366	1.00	41.06	H	C
	ATOM	5473	O	GLY	H	100B	44.855	42.360	0.912	1.00	40.75	H	O
	ATOM	5474	N	PHE	H	100C	45.087	44.491	1.365	1.00	39.30	H	N
	ATOM	5475	CA	PHE	H	100C	43.876	44.969	0.745	1.00	39.10	H	C
50	ATOM	5476	CB	PHE	H	100C	43.437	46.207	1.455	1.00	36.63	H	C
	ATOM	5477	CG	PHE	H	100C	42.852	46.003	2.697	1.00	37.34	H	C
	ATOM	5478	CD1	PHE	H	100C	43.534	46.461	3.977	1.00	37.49	H	C
	ATOM	5479	CD2	PHE	H	100C	41.806	45.153	2.862	1.00	37.27	H	C
	ATOM	5480	CE1	PHE	H	100C	42.988	46.286	5.054	1.00	37.43	H	C
55	ATOM	5481	CE2	PHE	H	100C	41.256	44.860	4.462	1.00	37.98	H	C
	ATOM	5482	CZ	PHE	H	100C	41.775	45.401	5.277	1.00	38.05	H	C
	ATOM	5483	C	PHE	H	100C	44.310	45.386	-0.689	1.00	38.92	H	C
	ATOM	5484	O	PHE	H	100C	44.856	46.558	-0.957	1.00	37.99	H	O
	ATOM	5485	N	ALA	H	101	44.112	44.508	-1.626	1.00	38.37	H	N
60	ATOM	5486	CA	ALA	H	101	44.715	44.704	-2.982	1.00	38.04	H	C
	ATOM	5487	CB	ALA	H	101	44.741	43.310	-3.802	1.00	37.26	H	C

ATOM	5488	C	ALA	H	101	43.888	45.617	-3.860	1.00	38.70	H	C
ATOM	5489	O	ALA	H	101	44.459	46.125	-4.821	1.00	39.22	H	O
ATOM	5490	N	TYR	H	102	42.624	45.849	-3.587	1.00	37.88	H	N
ATOM	5491	CA	TYR	H	102	41.823	46.756	-4.421	1.00	40.73	H	C
ATOM	5492	CB	TYR	H	102	40.881	45.940	-5.415	1.00	43.71	H	C
ATOM	5493	CG	TYR	H	102	41.770	45.485	-6.594	1.00	46.39	H	C
ATOM	5494	CD1	TYR	H	102	42.487	44.255	-6.486	1.00	46.61	H	C
ATOM	5495	CE1	TYR	H	102	43.463	43.807	-7.469	1.00	47.40	H	C
ATOM	5496	CD2	TYR	H	102	42.176	46.399	-7.510	1.00	46.31	H	C
ATOM	5497	CE2	TYR	H	102	43.139	45.953	-8.505	1.00	48.95	H	C
ATOM	5498	CZ	TYR	H	102	43.697	44.635	-8.507	1.00	50.42	H	C
ATOM	5499	OH	TYR	H	102	44.665	44.236	-9.426	1.00	50.89	H	O
ATOM	5500	C	TYR	H	102	40.807	47.551	-3.509	1.00	41.67	H	C
ATOM	5501	O	TYR	H	102	40.259	46.925	-2.531	1.00	41.21	H	O
ATOM	5502	N	TRP	H	103	40.625	48.838	-3.783	1.00	41.77	H	N
ATOM	5503	CA	TRP	H	103	39.717	49.645	-3.097	1.00	44.39	H	C
ATOM	5504	CB	TRP	H	103	40.386	50.618	-2.117	1.00	42.16	H	C
ATOM	5505	CG	TRP	H	103	41.471	50.174	-1.249	1.00	42.59	H	C
ATOM	5506	CD2	TRP	H	103	41.595	50.503	0.174	1.00	41.43	H	C
ATOM	5507	CE2	TRP	H	103	42.752	49.885	0.661	1.00	40.61	H	C
ATOM	5508	CE3	TRP	H	103	40.791	51.203	1.095	1.00	38.63	H	C
ATOM	5509	CD1	TRP	H	103	42.667	49.439	-1.605	1.00	41.54	H	C
ATOM	5510	NE1	TRP	H	103	43.385	49.247	-0.423	1.00	41.94	H	N
ATOM	5511	CZ2	TRP	H	103	43.179	50.049	2.000	1.00	37.96	H	C
ATOM	5512	CZ3	TRP	H	103	41.257	51.321	2.447	1.00	37.69	H	C
ATOM	5513	CH2	TRP	H	103	42.429	50.777	2.818	1.00	37.36	H	C
ATOM	5514	C	TRP	H	103	38.805	50.440	-3.949	1.00	45.62	H	C
ATOM	5515	O	TRP	H	103	39.068	50.687	-5.092	1.00	45.76	H	O
ATOM	5516	N	GLY	H	104	37.603	50.646	-3.465	1.00	46.03	H	N
ATOM	5517	CA	GLY	H	104	36.649	51.494	-4.232	1.00	49.34	H	C
ATOM	5518	C	GLY	H	104	36.862	52.969	-3.990	1.00	50.39	H	C
ATOM	5519	O	GLY	H	104	37.839	53.342	-3.435	1.00	50.04	H	O
ATOM	5520	N	GLN	H	105	35.899	53.812	-4.380	1.00	51.47	H	N
ATOM	5521	CA	GLN	H	105	36.001	55.263	-4.372	1.00	53.77	H	C
ATOM	5522	CB	GLN	H	105	35.215	55.927	-5.448	1.00	58.08	H	C
ATOM	5523	CG	GLN	H	105	36.012	55.514	-6.818	1.00	63.91	H	C
ATOM	5524	CD	GLN	H	105	37.577	56.078	-7.031	1.00	67.40	H	C
ATOM	5525	OE1	GLN	H	105	37.891	57.324	-6.794	1.00	70.51	H	O
ATOM	5526	NE2	GLN	H	105	38.506	55.151	-7.495	1.00	68.61	H	N
ATOM	5527	C	GLN	H	105	35.541	55.826	-3.186	1.00	53.77	H	C
ATOM	5528	O	GLN	H	105	35.881	56.980	-2.926	1.00	52.00	H	O
ATOM	5529	N	GLY	H	106	34.827	55.047	-2.408	1.00	53.76	H	N
ATOM	5530	CA	GLY	H	106	34.526	55.500	-1.099	1.00	53.09	H	C
ATOM	5531	C	GLY	H	106	33.100	56.020	-1.125	1.00	53.25	H	C
ATOM	5532	O	GLY	H	106	32.662	56.529	-2.182	1.00	53.58	H	O
ATOM	5533	N	THR	H	107	32.320	55.878	-0.055	1.00	51.37	H	N
ATOM	5534	CA	THR	H	107	31.068	56.570	0.001	1.00	49.58	H	C
ATOM	5535	CB	THR	H	107	29.822	55.625	-0.204	1.00	49.86	H	C
ATOM	5536	OG1	THR	H	107	28.563	56.384	-0.242	1.00	52.01	H	O
ATOM	5537	CG2	THR	H	107	29.563	54.703	0.994	1.00	48.32	H	C
ATOM	5538	C	THR	H	107	31.010	57.202	1.297	1.00	49.76	H	C
ATOM	5539	O	THR	H	107	31.356	56.588	2.303	1.00	49.74	H	O
ATOM	5540	N	LEU	H	108	30.618	58.471	1.346	1.00	50.53	H	N
ATOM	5541	CA	LEU	H	108	30.546	59.237	2.619	1.00	51.52	H	C
ATOM	5542	CB	LEU	H	108	30.711	60.734	2.383	1.00	52.39	H	C
ATOM	5543	CG	LEU	H	108	32.064	61.420	2.162	1.00	56.70	H	C
ATOM	5544	CD1	LEU	H	108	32.029	62.939	1.777	1.00	54.62	H	C
ATOM	5545	CD2	LEU	H	108	33.009	61.326	3.414	1.00	56.22	H	C
ATOM	5546	C	LEU	H	108	29.329	59.030	3.483	1.00	50.37	H	C
ATOM	5547	O	LEU	H	108	28.272	59.085	2.998	1.00	48.78	H	O
ATOM	5548	N	VAL	H	109	29.532	58.955	4.786	1.00	49.42	H	N

ATOM	5549	CA	VAL	H	109	28.471	58.808	5.695	1.00	50.40	H	C
ATOM	5550	CB	VAL	H	109	28.528	57.421	6.360	1.00	50.35	H	C
ATOM	5551	CG1	VAL	H	109	27.558	57.361	7.473	1.00	49.64	H	C
ATOM	5552	CG2	VAL	H	109	28.360	56.213	5.360	1.00	49.09	H	C
ATOM	5553	C	VAL	H	109	28.586	59.882	6.856	1.00	51.56	H	C
ATOM	5554	O	VAL	H	109	29.611	59.948	7.554	1.00	51.16	H	O
ATOM	5555	N	ALA	H	110	27.582	60.770	7.019	1.00	51.38	H	N
ATOM	5556	CA	ALA	H	110	27.547	61.701	8.120	1.00	52.80	H	C
ATOM	5557	CB	ALA	H	110	27.449	63.102	7.626	1.00	52.41	H	C
ATOM	5558	C	ALA	H	110	26.460	61.441	9.110	1.00	52.98	H	C
ATOM	5559	O	ALA	H	110	25.368	61.185	8.712	1.00	52.47	H	O
ATOM	5560	N	VAL	H	111	26.893	61.338	10.336	1.00	54.00	H	N
ATOM	5561	CA	VAL	H	111	26.075	61.036	11.455	1.00	55.55	H	C
ATOM	5562	CB	VAL	H	111	26.756	60.138	12.381	1.00	55.09	H	C
ATOM	5563	CG1	VAL	H	111	25.748	59.634	13.565	1.00	55.18	H	C
ATOM	5564	CG2	VAL	H	111	27.155	58.795	11.646	1.00	53.86	H	C
ATOM	5565	C	VAL	H	111	25.946	62.358	12.138	1.00	57.61	H	C
ATOM	5566	O	VAL	H	111	26.838	62.797	12.773	1.00	57.50	H	O
ATOM	5567	N	SER	H	112	24.800	63.012	11.987	1.00	59.58	H	N
ATOM	5568	CA	SER	H	112	24.564	64.420	12.424	1.00	62.06	H	C
ATOM	5569	CB	SER	H	112	25.076	65.409	11.269	1.00	62.27	H	C
ATOM	5570	OG	SER	H	112	24.805	66.847	11.473	1.00	63.44	H	O
ATOM	5571	C	SER	H	112	23.061	64.596	12.675	1.00	64.01	H	C
ATOM	5572	O	SER	H	112	22.269	64.096	11.871	1.00	64.87	H	O
ATOM	5573	N	ALA	H	113	22.634	65.326	13.724	1.00	65.89	H	N
ATOM	5574	CA	ALA	H	113	21.219	65.766	13.787	1.00	67.77	H	C
ATOM	5575	CB	ALA	H	113	20.753	65.882	15.179	1.00	67.00	H	C
ATOM	5576	C	ALA	H	113	20.861	67.043	12.965	1.00	69.23	H	C
ATOM	5577	O	ALA	H	113	19.729	67.369	12.728	1.00	69.65	H	O
ATOM	5578	N	ALA	H	114	21.836	67.674	12.368	1.00	69.99	H	N
ATOM	5579	CA	ALA	H	114	21.556	68.745	11.383	1.00	71.20	H	C
ATOM	5580	CB	ALA	H	114	22.832	69.472	11.042	1.00	70.37	H	C
ATOM	5581	C	ALA	H	114	20.864	68.283	10.131	1.00	72.68	H	C
ATOM	5582	O	ALA	H	114	20.698	67.061	9.867	1.00	72.43	H	O
ATOM	5583	N	LYS	H	115	20.523	69.293	9.307	1.00	73.47	H	N
ATOM	5584	CA	LYS	H	115	19.588	69.075	8.225	1.00	74.97	H	C
ATOM	5585	CB	LYS	H	115	18.332	69.996	8.398	1.00	76.29	H	C
ATOM	5586	CG	LYS	H	115	17.029	69.220	8.865	1.00	78.90	H	C
ATOM	5587	CD	LYS	H	115	15.722	70.076	8.445	1.00	80.84	H	C
ATOM	5588	CE	LYS	H	115	14.479	69.941	9.414	1.00	82.54	H	C
ATOM	5589	NZ	LYS	H	115	13.417	70.968	9.050	1.00	84.38	H	N
ATOM	5590	C	LYS	H	115	20.237	69.344	6.901	1.00	74.57	H	C
ATOM	5591	O	LYS	H	115	20.973	70.400	6.712	1.00	74.15	H	O
ATOM	5592	N	THR	H	116	19.761	68.565	5.925	1.00	74.05	H	N
ATOM	5593	CA	THR	H	116	20.330	68.731	4.659	1.00	74.84	H	C
ATOM	5594	CB	THR	H	116	20.188	67.575	3.700	1.00	75.81	H	C
ATOM	5595	OG1	THR	H	116	19.398	67.962	2.580	1.00	78.72	H	O
ATOM	5596	CG2	THR	H	116	19.520	66.458	4.332	1.00	77.18	H	C
ATOM	5597	C	THR	H	116	20.045	70.095	4.138	1.00	74.35	H	C
ATOM	5598	O	THR	H	116	19.015	70.595	4.371	1.00	74.89	H	O
ATOM	5599	N	THR	H	117	21.028	70.736	3.524	1.00	73.19	H	N
ATOM	5600	CA	THR	H	117	20.737	72.009	2.879	1.00	72.52	H	C
ATOM	5601	CB	THR	H	117	21.321	73.135	3.718	1.00	72.50	H	C
ATOM	5602	OG1	THR	H	117	21.009	72.949	5.153	1.00	72.65	H	O
ATOM	5603	CG2	THR	H	117	20.677	74.469	3.161	1.00	71.32	H	C
ATOM	5604	C	THR	H	117	21.307	72.133	1.516	1.00	71.62	H	C
ATOM	5605	O	THR	H	117	22.446	71.904	1.379	1.00	72.24	H	O
ATOM	5606	N	PRO	H	118	20.558	72.464	0.497	1.00	70.54	H	N
ATOM	5607	CD	PRO	H	118	19.109	72.729	0.435	1.00	70.30	H	C
ATOM	5608	CA	PRO	H	118	21.172	72.613	-0.815	1.00	69.81	H	C
ATOM	5609	CB	PRO	H	118	19.973	72.676	-1.794	1.00	70.03	H	C

ATOM	5610	CG	PRO	H	118	18.907	73.314	-1.007	1.00	69.36	H	C
ATOM	5611	C	PRO	H	118	22.089	73.820	-0.850	1.00	69.30	H	C
ATOM	5612	O	PRO	H	118	22.100	74.702	-0.001	1.00	68.93	H	O
ATOM	5613	N	PRO	H	119	23.020	73.759	-1.772	1.00	69.63	H	N
ATOM	5614	CD	PRO	H	119	23.318	72.607	-2.675	1.00	69.24	H	C
ATOM	5615	CA	PRO	H	119	23.982	74.865	-1.927	1.00	69.43	H	C
ATOM	5616	CB	PRO	H	119	25.140	74.229	-2.653	1.00	69.59	H	C
ATOM	5617	CG	PRO	H	119	24.419	73.207	-3.526	1.00	69.96	H	C
ATOM	5618	C	PRO	H	119	23.379	75.894	-2.789	1.00	69.54	H	C
ATOM	5619	O	PRO	H	119	22.564	75.533	-3.519	1.00	69.35	H	O
ATOM	5620	N	SER	H	120	23.735	77.137	-2.578	1.00	69.05	H	N
ATOM	5621	CA	SER	H	120	23.541	78.148	-3.511	1.00	69.34	H	C
ATOM	5622	CB	SER	H	120	23.388	79.438	-2.776	1.00	69.06	H	C
ATOM	5623	OG	SER	H	120	22.280	79.351	-1.990	1.00	69.83	H	O
ATOM	5624	C	SER	H	120	24.790	78.222	-4.362	1.00	69.65	H	C
ATOM	5625	O	SER	H	120	25.825	78.200	-3.817	1.00	70.99	H	O
ATOM	5626	N	VAL	H	121	24.683	78.406	-5.682	1.00	69.07	H	N
ATOM	5627	CA	VAL	H	121	25.782	78.429	-6.568	1.00	68.49	H	C
ATOM	5628	CB	VAL	H	121	25.581	77.269	-7.538	1.00	67.99	H	C
ATOM	5629	CG1	VAL	H	121	26.660	77.227	-8.681	1.00	66.50	H	C
ATOM	5630	CG2	VAL	H	121	25.504	75.933	-6.683	1.00	67.19	H	C
ATOM	5631	C	VAL	H	121	25.903	79.759	-7.337	1.00	68.59	H	C
ATOM	5632	O	VAL	H	121	25.006	80.213	-7.833	1.00	69.44	H	O
ATOM	5633	N	TYR	H	122	27.035	80.351	-7.514	1.00	68.04	H	N
ATOM	5634	CA	TYR	H	122	27.097	81.683	-8.072	1.00	68.49	H	C
ATOM	5635	CB	TYR	H	122	27.326	82.741	-7.030	1.00	66.91	H	C
ATOM	5636	CG	TYR	H	122	26.318	82.787	-5.901	1.00	65.94	H	C
ATOM	5637	CD1	TYR	H	122	25.018	82.941	-6.191	1.00	65.72	H	C
ATOM	5638	CE1	TYR	H	122	24.036	82.968	-5.212	1.00	64.55	H	C
ATOM	5639	CD2	TYR	H	122	26.659	82.585	-4.584	1.00	64.79	H	C
ATOM	5640	CE2	TYR	H	122	25.691	82.631	-3.591	1.00	64.05	H	C
ATOM	5641	CZ	TYR	H	122	24.358	82.849	-3.962	1.00	63.93	H	C
ATOM	5642	OH	TYR	H	122	23.289	82.929	-3.129	1.00	63.03	H	O
ATOM	5643	C	TYR	H	122	28.278	81.724	-9.056	1.00	69.84	H	C
ATOM	5644	O	TYR	H	122	29.303	81.211	-8.764	1.00	69.11	H	O
ATOM	5645	N	PRO	H	123	28.142	82.401	-10.181	1.00	71.60	H	N
ATOM	5646	CD	PRO	H	123	26.999	83.253	-10.618	1.00	71.61	H	C
ATOM	5647	CA	PRO	H	123	29.225	82.373	-11.168	1.00	73.00	H	C
ATOM	5648	CB	PRO	H	123	28.495	82.618	-12.519	1.00	72.20	H	C
ATOM	5649	CG	PRO	H	123	27.297	83.644	-12.077	1.00	71.53	H	C
ATOM	5650	C	PRO	H	123	30.228	83.455	-10.829	1.00	74.28	H	C
ATOM	5651	O	PRO	H	123	29.839	84.542	-10.394	1.00	75.03	H	O
ATOM	5652	N	LEU	H	124	31.500	83.209	-11.057	1.00	75.57	H	N
ATOM	5653	CA	LEU	H	124	32.464	84.215	-10.808	1.00	77.18	H	C
ATOM	5654	CB	LEU	H	124	33.515	83.686	-9.820	1.00	76.33	H	C
ATOM	5655	CG	LEU	H	124	33.045	83.173	-8.499	1.00	75.63	H	C
ATOM	5656	CD1	LEU	H	124	34.230	82.372	-7.902	1.00	75.48	H	C
ATOM	5657	CD2	LEU	H	124	32.585	84.320	-7.676	1.00	75.22	H	C
ATOM	5658	C	LEU	H	124	33.147	84.641	-12.061	1.00	78.64	H	C
ATOM	5659	O	LEU	H	124	33.894	83.897	-12.645	1.00	78.81	H	O
ATOM	5660	N	ALA	H	125	33.005	85.915	-12.348	1.00	80.89	H	N
ATOM	5661	CA	ALA	H	125	33.442	86.473	-13.631	1.00	82.49	H	C
ATOM	5662	CB	ALA	H	125	32.252	86.765	-14.462	1.00	81.49	H	C
ATOM	5663	C	ALA	H	125	34.258	87.705	-13.366	1.00	83.38	H	C
ATOM	5664	O	ALA	H	125	33.977	88.375	-12.373	1.00	83.49	H	O
ATOM	5665	N	PRO	H	126	35.298	87.967	-14.181	1.00	84.62	H	N
ATOM	5666	CD	PRO	H	126	35.713	87.225	-15.370	1.00	84.56	H	C
ATOM	5667	CA	PRO	H	126	36.216	89.095	-13.959	1.00	85.66	H	C
ATOM	5668	CB	PRO	H	126	37.083	89.030	-15.205	1.00	85.31	H	C
ATOM	5669	CG	PRO	H	126	36.296	88.308	-16.113	1.00	84.85	H	C
ATOM	5670	C	PRO	H	126	35.534	90.465	-13.871	1.00	86.61	H	C

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ATOM   5671  O   PRO H 126      34.537  90.903 -14.349  1.00 86.89      H    O
ATOM   5672  N   ALA H 133      45.015  88.620 -19.518  1.00 87.90      H    N
ATOM   5673  CA  ALA H 133      46.014  88.473 -20.570  1.00 88.86      H    C
ATOM   5674  CB  ALA H 133      47.399  88.539 -19.927  1.00 88.44      H    C
ATOM   5675  C   ALA H 133      45.850  87.150 -21.322  1.00 89.28      H    C
ATOM   5676  O   ALA H 133      44.766  86.594 -21.442  1.00 89.70      H    O
ATOM   5677  N   ALA H 134      46.979  86.669 -21.875  1.00 89.69      H    N
ATOM   5678  CA  ALA H 134      46.941  85.423 -22.633  1.00 90.00      H    C
ATOM   5679  CB  ALA H 134      48.337  84.801 -22.599  1.00 90.26      H    C
ATOM   5680  C   ALA H 134      45.920  84.439 -22.055  1.00 90.19      H    C
ATOM   5681  O   ALA H 134      45.215  83.736 -22.766  1.00 90.05      H    O
ATOM   5682  N   MET H 135      45.887  84.376 -20.712  1.00 89.65      H    N
ATOM   5683  CA  MET H 135      44.974  83.444 -20.061  1.00 88.40      H    C
ATOM   5684  CB  MET H 135      45.807  82.459 -19.241  1.00 89.05      H    C
ATOM   5685  CG  MET H 135      46.718  81.595 -20.115  1.00 89.97      H    C
ATOM   5686  SD  MET H 135      45.790  80.601 -21.291  1.00 92.18      H    S
ATOM   5687  CE  MET H 135      44.934  79.553 -20.106  1.00 90.49      H    C
ATOM   5688  C   MET H 135      43.977  84.167 -19.152  1.00 87.02      H    C
ATOM   5689  O   MET H 135      44.172  85.301 -18.736  1.00 87.12      H    O
ATOM   5690  N   VAL H 136      42.854  83.477 -18.881  1.00 85.50      H    N
ATOM   5691  CA  VAL H 136      41.838  84.065 -18.018  1.00 83.76      H    C
ATOM   5692  CB  VAL H 136      40.793  84.742 -18.905  1.00 83.98      H    C
ATOM   5693  CG1 VAL H 136      39.802  83.703 -19.426  1.00 83.33      H    C
ATOM   5694  CG2 VAL H 136      40.041  85.793 -18.110  1.00 83.66      H    C
ATOM   5695  C   VAL H 136      41.164  83.009 -17.140  1.00 82.18      H    C
ATOM   5696  O   VAL H 136      40.857  81.903 -17.565  1.00 82.47      H    O
ATOM   5697  N   THR H 137      40.974  83.371 -15.858  1.00 80.41      H    N
ATOM   5698  CA  THR H 137      40.306  82.454 -14.943  1.00 79.76      H    C
ATOM   5699  CB  THR H 137      41.222  82.227 -13.740  1.00 79.32      H    C
ATOM   5700  OG1 THR H 137      40.560  82.675 -12.555  1.00 79.45      H    O
ATOM   5701  CG2 THR H 137      42.519  83.023 -13.911  1.00 78.61      H    C
ATOM   5702  C   THR H 137      38.957  83.011 -14.480  1.00 78.49      H    C
ATOM   5703  O   THR H 137      38.773  84.211 -14.320  1.00 78.29      H    O
ATOM   5704  N   LEU H 138      38.056  82.025 -14.373  1.00 77.73      H    N
ATOM   5705  CA  LEU H 138      36.717  82.196 -13.866  1.00 77.47      H    C
ATOM   5706  CB  LEU H 138      35.784  81.768 -14.997  1.00 78.10      H    C
ATOM   5707  CG  LEU H 138      36.149  82.431 -16.321  1.00 79.50      H    C
ATOM   5708  CD1 LEU H 138      35.422  81.810 -17.526  1.00 79.35      H    C
ATOM   5709  CD2 LEU H 138      35.787  83.917 -16.316  1.00 78.82      H    C
ATOM   5710  C   LEU H 138      36.566  81.217 -12.706  1.00 76.73      H    C
ATOM   5711  O   LEU H 138      37.440  80.402 -12.420  1.00 76.08      H    O
ATOM   5712  N   GLY H 139      35.428  81.318 -11.999  1.00 76.19      H    N
ATOM   5713  CA  GLY H 139      35.185  80.385 -10.926  1.00 76.09      H    C
ATOM   5714  C   GLY H 139      33.699  80.196 -10.655  1.00 75.94      H    C
ATOM   5715  O   GLY H 139      32.807  80.740 -11.324  1.00 75.89      H    O
ATOM   5716  N   CYS H 140      33.460  79.323  -9.639  1.00 76.35      H    N
ATOM   5717  CA  CYS H 140      32.115  79.018  -9.174  1.00 76.80      H    C
ATOM   5718  C   CYS H 140      32.118  78.990  -7.664  1.00 75.34      H    C
ATOM   5719  O   CYS H 140      32.979  78.400  -7.062  1.00 75.52      H    O
ATOM   5720  CB  CYS H 140      31.768  77.608  -9.693  1.00 78.19      H    C
ATOM   5721  SG  CYS H 140      30.531  77.716 -10.993  1.00 83.30      H    S
ATOM   5722  N   LEU H 141      31.166  79.675  -7.033  1.00 73.47      H    N
ATOM   5723  CA  LEU H 141      31.133  79.580  -5.599  1.00 70.98      H    C
ATOM   5724  CB  LEU H 141      31.071  81.022  -5.092  1.00 70.21      H    C
ATOM   5725  CG  LEU H 141      30.910  81.245  -3.583  1.00 69.27      H    C
ATOM   5726  CD1 LEU H 141      32.100  80.826  -2.720  1.00 68.13      H    C
ATOM   5727  CD2 LEU H 141      30.766  82.729  -3.303  1.00 68.78      H    C
ATOM   5728  C   LEU H 141      29.938  78.722  -5.186  1.00 69.23      H    C
ATOM   5729  O   LEU H 141      28.813  78.816  -5.720  1.00 69.90      H    O
ATOM   5730  N   VAL H 142      30.252  77.766  -4.287  1.00 66.68      H    N
ATOM   5731  CA  VAL H 142      29.214  76.863  -3.806  1.00 64.25      H    C
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ATOM	5732	CB	VAL	H	142	29.617	75.452	-4.218	1.00	64.24	H	C
ATOM	5733	CG1	VAL	H	142	28.544	74.440	-3.846	1.00	61.94	H	C
ATOM	5734	CG2	VAL	H	142	29.797	75.400	-5.719	1.00	61.98	H	C
ATOM	5735	C	VAL	H	142	29.063	77.012	-2.312	1.00	63.46	H	C
ATOM	5736	O	VAL	H	142	29.931	76.683	-1.511	1.00	62.73	H	O
ATOM	5737	N	LYS	H	143	27.895	77.604	-1.972	1.00	62.44	H	N
ATOM	5738	CA	LYS	H	143	27.728	78.239	-0.671	1.00	61.55	H	C
ATOM	5739	CB	LYS	H	143	27.568	79.740	-0.912	1.00	61.63	H	C
ATOM	5740	CG	LYS	H	143	27.800	80.536	0.368	1.00	64.18	H	C
ATOM	5741	CD	LYS	H	143	27.452	82.004	0.237	1.00	66.95	H	C
ATOM	5742	CE	LYS	H	143	27.476	82.690	1.597	1.00	67.20	H	C
ATOM	5743	NZ	LYS	H	143	28.805	82.543	2.222	1.00	69.98	H	N
ATOM	5744	C	LYS	H	143	26.502	77.737	0.069	1.00	60.08	H	C
ATOM	5745	O	LYS	H	143	25.390	77.671	-0.439	1.00	59.81	H	O
ATOM	5746	N	GLY	H	144	26.809	77.297	1.302	1.00	58.65	H	N
ATOM	5747	CA	GLY	H	144	25.785	77.102	2.318	1.00	58.01	H	C
ATOM	5748	C	GLY	H	144	25.114	75.718	2.273	1.00	57.98	H	C
ATOM	5749	O	GLY	H	144	23.925	75.575	2.485	1.00	57.35	H	O
ATOM	5750	N	TYR	H	145	25.914	74.670	1.969	1.00	57.90	H	N
ATOM	5751	CA	TYR	H	145	25.310	73.332	1.814	1.00	57.33	H	C
ATOM	5752	CB	TYR	H	145	25.754	72.732	0.470	1.00	57.61	H	C
ATOM	5753	CG	TYR	H	145	27.211	72.419	0.469	1.00	59.84	H	C
ATOM	5754	CD1	TYR	H	145	27.702	71.225	0.973	1.00	59.62	H	C
ATOM	5755	CE1	TYR	H	145	29.021	70.862	0.786	1.00	61.69	H	C
ATOM	5756	CD2	TYR	H	145	28.071	73.235	-0.241	1.00	60.20	H	C
ATOM	5757	CE2	TYR	H	145	29.408	72.879	-0.428	1.00	60.85	H	C
ATOM	5758	CZ	TYR	H	145	29.887	71.699	0.108	1.00	61.51	H	C
ATOM	5759	OH	TYR	H	145	31.233	71.371	-0.008	1.00	63.36	H	O
ATOM	5760	C	TYR	H	145	25.707	72.391	2.974	1.00	57.16	H	C
ATOM	5761	O	TYR	H	145	26.691	72.595	3.662	1.00	56.86	H	O
ATOM	5762	N	PHE	H	146	24.907	71.338	3.216	1.00	57.23	H	N
ATOM	5763	CA	PHE	H	146	25.269	70.307	4.209	1.00	57.03	H	C
ATOM	5764	CB	PHE	H	146	24.977	70.863	5.618	1.00	57.40	H	C
ATOM	5765	CG	PHE	H	146	25.239	69.831	6.686	1.00	57.38	H	C
ATOM	5766	CD1	PHE	H	146	26.497	69.744	7.267	1.00	56.79	H	C
ATOM	5767	CD2	PHE	H	146	24.228	68.953	7.079	1.00	57.31	H	C
ATOM	5768	CE1	PHE	H	146	26.753	68.781	8.233	1.00	56.84	H	C
ATOM	5769	CE2	PHE	H	146	24.492	67.991	8.047	1.00	57.73	H	C
ATOM	5770	CZ	PHE	H	146	25.753	67.889	8.614	1.00	56.94	H	C
ATOM	5771	C	PHE	H	146	24.395	69.079	3.936	1.00	57.78	H	C
ATOM	5772	O	PHE	H	146	23.225	69.177	3.600	1.00	58.27	H	O
ATOM	5773	N	PRO	H	147	24.948	67.837	4.033	1.00	57.91	H	N
ATOM	5774	CD	PRO	H	147	24.299	66.563	3.760	1.00	57.22	H	C
ATOM	5775	CA	PRO	H	147	26.347	67.580	4.399	1.00	56.51	H	C
ATOM	5776	CB	PRO	H	147	26.337	66.155	4.958	1.00	57.13	H	C
ATOM	5777	CG	PRO	H	147	25.316	65.398	4.154	1.00	57.27	H	C
ATOM	5778	C	PRO	H	147	27.195	67.564	3.130	1.00	56.56	H	C
ATOM	5779	O	PRO	H	147	26.749	67.891	2.031	1.00	55.45	H	O
ATOM	5780	N	GLU	H	148	28.481	67.179	3.330	1.00	55.99	H	N
ATOM	5781	CA	GLU	H	148	29.360	66.829	2.227	1.00	55.91	H	C
ATOM	5782	CB	GLU	H	148	30.818	66.673	2.755	1.00	55.82	H	C
ATOM	5783	CG	GLU	H	148	31.483	67.963	3.268	1.00	57.49	H	C
ATOM	5784	CD	GLU	H	148	32.922	68.092	2.735	1.00	60.41	H	C
ATOM	5785	OE1	GLU	H	148	33.838	67.843	3.478	1.00	62.59	H	O
ATOM	5786	OE2	GLU	H	148	33.117	68.614	1.641	1.00	60.21	H	O
ATOM	5787	C	GLU	H	148	28.866	65.468	1.672	1.00	54.77	H	C
ATOM	5788	O	GLU	H	148	28.271	64.686	2.384	1.00	55.39	H	O
ATOM	5789	N	PRO	H	149	29.156	65.241	0.375	1.00	54.06	H	N
ATOM	5790	CD	PRO	H	149	28.965	63.973	-0.326	1.00	52.97	H	C
ATOM	5791	CA	PRO	H	149	29.912	66.118	-0.486	1.00	54.94	H	C
ATOM	5792	CB	PRO	H	149	30.909	65.167	-1.114	1.00	54.57	H	C

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ATOM   5793  CG  PRO H 149      30.057  63.944  -1.504  1.00 54.42      H    C
ATOM   5794  C   PRO H 149      29.121  66.781  -1.643  1.00 56.29      H    C
ATOM   5795  O   PRO H 149      27.930  66.563  -1.847  1.00 57.63      H    O
ATOM   5796  N   VAL H 150      29.844  67.654  -2.427  1.00 57.08      H    N
ATOM   5797  CA  VAL H 150      29.324  68.079  -3.723  1.00 56.72      H    C
ATOM   5798  CB  VAL H 150      29.146  69.608  -3.809  1.00 56.11      H    C
ATOM   5799  CG1 VAL H 150      28.016  70.105  -2.912  1.00 55.69      H    C
ATOM   5800  CG2 VAL H 150      30.449  70.326  -3.507  1.00 56.14      H    C
ATOM   5801  C   VAL H 150      30.290  67.734  -4.807  1.00 57.76      H    C
ATOM   5802  O   VAL H 150      31.430  67.338  -4.587  1.00 57.89      H    O
ATOM   5803  N   THR H 151      29.837  67.938  -6.018  1.00 59.16      H    N
ATOM   5804  CA  THR H 151      30.715  67.629  -7.095  1.00 60.28      H    C
ATOM   5805  CB  THR H 151      30.353  66.211  -7.573  1.00 61.13      H    C
ATOM   5806  OG1 THR H 151      31.476  65.613  -8.226  1.00 62.65      H    O
ATOM   5807  CG2 THR H 151      29.132  66.233  -8.489  1.00 61.40      H    C
ATOM   5808  C   THR H 151      30.628  68.695  -8.174  1.00 60.42      H    C
ATOM   5809  O   THR H 151      29.556  69.171  -8.551  1.00 61.43      H    O
ATOM   5810  N   VAL H 152      31.823  69.130  -8.609  1.00 60.63      H    N
ATOM   5811  CA  VAL H 152      31.903  70.227  -9.539  1.00 60.80      H    C
ATOM   5812  CB  VAL H 152      32.737  71.304  -8.867  1.00 61.18      H    C
ATOM   5813  CG1 VAL H 152      33.050  72.431  -9.854  1.00 59.55      H    C
ATOM   5814  CG2 VAL H 152      32.020  71.839  -7.646  1.00 60.63      H    C
ATOM   5815  C   VAL H 152      32.626  69.789 -10.789  1.00 61.85      H    C
ATOM   5816  O   VAL H 152      33.667  69.158 -10.717  1.00 61.61      H    O
ATOM   5817  N   THR H 153      32.010  70.069 -11.955  1.00 63.13      H    N
ATOM   5818  CA  THR H 153      32.739  69.927 -13.195  1.00 64.55      H    C
ATOM   5819  CB  THR H 153      32.109  68.787 -14.003  1.00 64.46      H    C
ATOM   5820  OG1 THR H 153      30.720  69.050 -14.214  1.00 66.15      H    O
ATOM   5821  CG2 THR H 153      32.260  67.448 -13.266  1.00 63.21      H    C
ATOM   5822  C   THR H 153      32.639  71.211 -13.991  1.00 65.35      H    C
ATOM   5823  O   THR H 153      31.845  72.107 -13.682  1.00 65.82      H    O
ATOM   5824  N   TRP H 154      33.506  71.320 -15.015  1.00 67.73      H    N
ATOM   5825  CA  TRP H 154      33.347  72.395 -15.980  1.00 70.47      H    C
ATOM   5826  CB  TRP H 154      34.619  73.250 -15.939  1.00 71.18      H    C
ATOM   5827  CG  TRP H 154      34.748  73.980 -14.636  1.00 71.96      H    C
ATOM   5828  CD2 TRP H 154      34.191  75.299 -14.369  1.00 72.27      H    C
ATOM   5829  CE2 TRP H 154      34.618  75.650 -13.034  1.00 72.93      H    C
ATOM   5830  CE3 TRP H 154      33.425  76.182 -15.096  1.00 72.34      H    C
ATOM   5831  CD1 TRP H 154      35.493  73.616 -13.492  1.00 72.81      H    C
ATOM   5832  NE1 TRP H 154      35.447  74.556 -12.501  1.00 72.55      H    N
ATOM   5833  CZ2 TRP H 154      34.233  76.887 -12.518  1.00 73.00      H    C
ATOM   5834  CZ3 TRP H 154      33.055  77.407 -14.581  1.00 73.01      H    C
ATOM   5835  CH2 TRP H 154      33.453  77.757 -13.283  1.00 73.60      H    C
ATOM   5836  C   TRP H 154      33.107  71.799 -17.383  1.00 71.96      H    C
ATOM   5837  O   TRP H 154      33.638  70.750 -17.717  1.00 72.49      H    O
ATOM   5838  N   ASN H 155      32.260  72.524 -18.176  1.00 73.41      H    N
ATOM   5839  CA  ASN H 155      31.585  72.007 -19.404  1.00 74.78      H    C
ATOM   5840  CB  ASN H 155      32.344  72.405 -20.678  1.00 73.67      H    C
ATOM   5841  CG  ASN H 155      32.371  73.903 -20.835  1.00 72.85      H    C
ATOM   5842  OD1 ASN H 155      31.399  74.614 -20.572  1.00 72.15      H    O
ATOM   5843  ND2 ASN H 155      33.584  74.393 -21.194  1.00 73.17      H    N
ATOM   5844  C   ASN H 155      31.216  70.502 -19.442  1.00 76.03      H    C
ATOM   5845  O   ASN H 155      31.406  69.818 -20.459  1.00 76.90      H    O
ATOM   5846  N   SER H 156      30.667  70.010 -18.306  1.00 77.24      H    N
ATOM   5847  CA  SER H 156      30.036  68.674 -18.239  1.00 78.92      H    C
ATOM   5848  CB  SER H 156      28.857  68.600 -19.221  1.00 79.62      H    C
ATOM   5849  OG  SER H 156      27.897  69.586 -18.822  1.00 80.28      H    O
ATOM   5850  C   SER H 156      31.016  67.491 -18.355  1.00 79.81      H    C
ATOM   5851  O   SER H 156      30.668  66.343 -18.630  1.00 80.45      H    O
ATOM   5852  N   GLY H 157      32.288  67.828 -18.097  1.00 80.22      H    N
ATOM   5853  CA  GLY H 157      33.354  66.848 -18.140  1.00 80.31      H    C
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ATOM	5854	C	GLY	H	157	34.487	67.349	-19.033	1.00	80.50	H	C
ATOM	5855	O	GLY	H	157	35.642	66.951	-18.923	1.00	80.73	H	O
ATOM	5856	N	ALA	H	158	34.098	68.246	-19.969	1.00	80.66	H	N
ATOM	5857	CA	ALA	H	158	35.030	68.606	-21.029	1.00	81.02	H	C
ATOM	5858	CB	ALA	H	158	34.297	69.433	-22.089	1.00	81.05	H	C
ATOM	5859	C	ALA	H	158	36.306	69.292	-20.525	1.00	81.09	H	C
ATOM	5860	O	ALA	H	158	37.407	68.848	-20.789	1.00	80.82	H	O
ATOM	5861	N	LEU	H	159	36.120	70.402	-19.776	1.00	81.48	H	N
ATOM	5862	CA	LEU	H	159	37.255	71.134	-19.228	1.00	81.12	H	C
ATOM	5863	CB	LEU	H	159	36.718	72.524	-18.926	1.00	81.49	H	C
ATOM	5864	CG	LEU	H	159	37.224	73.540	-19.951	1.00	80.68	H	C
ATOM	5865	CD1	LEU	H	159	36.514	74.885	-19.863	1.00	80.53	H	C
ATOM	5866	CD2	LEU	H	159	38.716	73.822	-19.816	1.00	81.02	H	C
ATOM	5867	C	LEU	H	159	37.786	70.536	-17.917	1.00	81.10	H	C
ATOM	5868	O	LEU	H	159	37.150	70.570	-16.885	1.00	80.67	H	O
ATOM	5869	N	SER	H	160	39.002	69.969	-17.978	1.00	81.36	H	N
ATOM	5870	CA	SER	H	160	39.491	69.283	-16.784	1.00	81.20	H	C
ATOM	5871	CB	SER	H	160	39.458	67.783	-17.075	1.00	81.88	H	C
ATOM	5872	OG	SER	H	160	39.477	67.580	-18.489	1.00	82.71	H	O
ATOM	5873	C	SER	H	160	40.911	69.699	-16.408	1.00	80.76	H	C
ATOM	5874	O	SER	H	160	41.486	69.249	-15.415	1.00	81.69	H	O
ATOM	5875	N	SER	H	161	41.515	70.530	-17.297	1.00	79.36	H	N
ATOM	5876	CA	SER	H	161	42.797	71.127	-16.948	1.00	78.19	H	C
ATOM	5877	CB	SER	H	161	43.864	70.721	-17.960	1.00	78.47	H	C
ATOM	5878	OG	SER	H	161	44.212	69.356	-17.737	1.00	80.44	H	O
ATOM	5879	C	SER	H	161	42.743	72.653	-16.771	1.00	76.76	H	C
ATOM	5880	O	SER	H	161	41.890	73.369	-17.292	1.00	76.36	H	O
ATOM	5881	N	GLY	H	162	43.720	73.112	-15.955	1.00	75.51	H	N
ATOM	5882	CA	GLY	H	162	43.708	74.467	-15.436	1.00	73.39	H	C
ATOM	5883	C	GLY	H	162	42.535	74.685	-14.455	1.00	71.72	H	C
ATOM	5884	O	GLY	H	162	42.098	75.803	-14.213	1.00	72.43	H	O
ATOM	5885	N	VAL	H	163	42.005	73.511	-13.941	1.00	68.97	H	N
ATOM	5886	CA	VAL	H	163	40.926	73.470	-12.941	1.00	66.41	H	C
ATOM	5887	CB	VAL	H	163	39.906	72.375	-13.308	1.00	66.17	H	C
ATOM	5888	CG1	VAL	H	163	39.101	71.962	-12.064	1.00	64.64	H	C
ATOM	5889	CG2	VAL	H	163	38.945	72.866	-14.357	1.00	65.38	H	C
ATOM	5890	C	VAL	H	163	41.427	73.170	-11.526	1.00	65.54	H	C
ATOM	5891	O	VAL	H	163	42.045	72.151	-11.247	1.00	65.66	H	O
ATOM	5892	N	HIS	H	164	41.138	74.143	-10.634	1.00	64.28	H	N
ATOM	5893	CA	HIS	H	164	41.380	73.986	-9.217	1.00	62.68	H	C
ATOM	5894	CB	HIS	H	164	42.289	75.168	-8.825	1.00	62.70	H	C
ATOM	5895	CG	HIS	H	164	43.713	75.002	-9.366	1.00	61.67	H	C
ATOM	5896	CD2	HIS	H	164	44.444	75.900	-10.192	1.00	61.61	H	C
ATOM	5897	ND1	HIS	H	164	44.548	73.994	-8.998	1.00	61.59	H	N
ATOM	5898	CE1	HIS	H	164	45.733	74.259	-9.619	1.00	61.79	H	C
ATOM	5899	NE2	HIS	H	164	45.701	75.392	-10.339	1.00	61.73	H	N
ATOM	5900	C	HIS	H	164	40.045	74.070	-8.445	1.00	62.25	H	C
ATOM	5901	O	HIS	H	164	39.417	75.114	-8.357	1.00	62.65	H	O
ATOM	5902	N	THR	H	165	39.571	72.900	-7.924	1.00	60.50	H	N
ATOM	5903	CA	THR	H	165	38.430	72.875	-6.986	1.00	58.57	H	C
ATOM	5904	CB	THR	H	165	37.531	71.679	-7.383	1.00	58.57	H	C
ATOM	5905	OG1	THR	H	165	36.954	71.953	-8.661	1.00	57.87	H	O
ATOM	5906	CG2	THR	H	165	36.394	71.435	-6.374	1.00	56.88	H	C
ATOM	5907	C	THR	H	165	38.921	72.728	-5.529	1.00	57.25	H	C
ATOM	5908	O	THR	H	165	39.631	71.797	-5.164	1.00	57.26	H	O
ATOM	5909	N	PHE	H	166	38.577	73.747	-4.680	1.00	55.32	H	N
ATOM	5910	CA	PHE	H	166	39.188	73.844	-3.346	1.00	53.48	H	C
ATOM	5911	CB	PHE	H	166	39.250	75.330	-2.943	1.00	51.93	H	C
ATOM	5912	CG	PHE	H	166	40.124	76.136	-3.886	1.00	50.87	H	C
ATOM	5913	CD1	PHE	H	166	39.593	76.613	-5.092	1.00	49.87	H	C
ATOM	5914	CD2	PHE	H	166	41.457	76.408	-3.551	1.00	50.53	H	C

	ATOM	5915	CE1	PHE	H 166	40.413	77.311	-5.980	1.00	48.36	H	C
	ATOM	5916	CE2	PHE	H 166	42.274	77.110	-4.445	1.00	50.79	H	C
	ATOM	5917	CZ	PHE	H 166	41.752	77.556	-5.660	1.00	48.16	H	C
	ATOM	5918	C	PHE	H 166	38.401	73.043	-2.279	1.00	52.89	H	C
5	ATOM	5919	O	PHE	H 166	37.210	72.826	-2.376	1.00	53.51	H	O
	ATOM	5920	N	PRO	H 167	39.133	72.552	-1.254	1.00	52.26	H	N
	ATOM	5921	CD	PRO	H 167	40.559	72.601	-0.985	1.00	50.59	H	C
	ATOM	5922	CA	PRO	H 167	38.463	71.788	-0.180	1.00	52.23	H	C
	ATOM	5923	CB	PRO	H 167	39.563	71.373	0.812	1.00	51.28	H	C
10	ATOM	5924	CG	PRO	H 167	40.874	71.440	0.054	1.00	51.12	H	C
	ATOM	5925	C	PRO	H 167	37.407	72.654	0.511	1.00	53.22	H	C
	ATOM	5926	O	PRO	H 167	37.593	73.839	0.731	1.00	53.17	H	O
	ATOM	5927	N	ALA	H 168	36.247	72.018	0.850	1.00	54.77	H	N
	ATOM	5928	CA	ALA	H 168	35.223	72.783	1.570	1.00	56.82	H	C
15	ATOM	5929	CB	ALA	H 168	33.997	71.886	1.770	1.00	56.59	H	C
	ATOM	5930	C	ALA	H 168	35.724	73.229	2.939	1.00	58.43	H	C
	ATOM	5931	O	ALA	H 168	36.554	72.589	3.576	1.00	58.60	H	O
	ATOM	5932	N	VAL	H 169	35.216	74.412	3.348	1.00	61.29	H	N
	ATOM	5933	CA	VAL	H 169	35.314	74.880	4.720	1.00	64.98	H	C
20	ATOM	5934	CB	VAL	H 169	35.947	76.274	4.720	1.00	65.10	H	C
	ATOM	5935	CG1	VAL	H 169	37.462	76.143	4.565	1.00	64.84	H	C
	ATOM	5936	CG2	VAL	H 169	35.394	77.109	3.577	1.00	66.13	H	C
	ATOM	5937	C	VAL	H 169	33.945	74.907	5.403	1.00	66.34	H	C
	ATOM	5938	O	VAL	H 169	32.897	75.043	4.780	1.00	66.63	H	O
25	ATOM	5939	N	LEU	H 170	33.975	74.725	6.734	1.00	68.77	H	N
	ATOM	5940	CA	LEU	H 170	32.726	74.631	7.475	1.00	71.62	H	C
	ATOM	5941	CB	LEU	H 170	32.786	73.367	8.340	1.00	70.81	H	C
	ATOM	5942	CG	LEU	H 170	31.534	73.158	9.194	1.00	70.04	H	C
	ATOM	5943	CD1	LEU	H 170	30.284	72.878	8.356	1.00	68.73	H	C
30	ATOM	5944	CD2	LEU	H 170	31.668	71.975	10.159	1.00	69.05	H	C
	ATOM	5945	C	LEU	H 170	32.497	75.861	8.359	1.00	74.42	H	C
	ATOM	5946	O	LEU	H 170	33.216	76.124	9.315	1.00	74.98	H	O
	ATOM	5947	N	GLU	H 171	31.473	76.650	7.985	1.00	77.39	H	N
	ATOM	5948	CA	GLU	H 171	31.147	77.829	8.780	1.00	80.47	H	C
35	ATOM	5949	CB	GLU	H 171	31.193	79.054	7.864	1.00	82.66	H	C
	ATOM	5950	CG	GLU	H 171	30.366	80.220	8.406	1.00	85.40	H	C
	ATOM	5951	CD	GLU	H 171	31.231	81.076	9.304	1.00	86.56	H	C
	ATOM	5952	OE1	GLU	H 171	30.703	81.973	9.945	1.00	87.03	H	O
	ATOM	5953	OE2	GLU	H 171	32.436	80.836	9.353	1.00	86.28	H	O
40	ATOM	5954	C	GLU	H 171	29.769	77.704	9.430	1.00	81.61	H	C
	ATOM	5955	O	GLU	H 171	28.732	77.775	8.784	1.00	82.55	H	O
	ATOM	5956	N	SER	H 172	29.786	77.466	10.755	1.00	82.44	H	N
	ATOM	5957	CA	SER	H 172	28.538	77.280	11.487	1.00	83.43	H	C
	ATOM	5958	CB	SER	H 172	27.828	78.630	11.604	1.00	84.82	H	C
45	ATOM	5959	OG	SER	H 172	27.626	78.930	12.985	1.00	86.80	H	O
	ATOM	5960	C	SER	H 172	27.621	76.250	10.819	1.00	83.32	H	C
	ATOM	5961	O	SER	H 172	26.564	76.556	10.283	1.00	83.57	H	O
	ATOM	5962	N	ASP	H 173	28.097	74.987	10.837	1.00	82.66	H	N
	ATOM	5963	CA	ASP	H 173	27.315	73.880	10.280	1.00	80.87	H	C
50	ATOM	5964	CB	ASP	H 173	27.842	72.491	10.629	1.00	84.20	H	C
	ATOM	5965	CG	ASP	H 173	28.158	72.411	12.114	1.00	87.15	H	C
	ATOM	5966	OD1	ASP	H 173	28.796	73.336	12.616	1.00	88.19	H	O
	ATOM	5967	OD2	ASP	H 173	27.799	71.414	12.738	1.00	88.10	H	O
	ATOM	5968	C	ASP	H 173	26.810	74.056	8.846	1.00	78.06	H	C
55	ATOM	5969	O	ASP	H 173	25.705	73.667	8.487	1.00	78.01	H	O
	ATOM	5970	N	LEU	H 174	27.656	74.697	8.017	1.00	73.95	H	N
	ATOM	5971	CA	LEU	H 174	27.402	74.696	6.579	1.00	70.41	H	C
	ATOM	5972	CB	LEU	H 174	26.488	75.875	6.219	1.00	70.08	H	C
	ATOM	5973	CG	LEU	H 174	25.025	75.612	6.594	1.00	70.43	H	C
60	ATOM	5974	CD1	LEU	H 174	24.084	76.749	6.170	1.00	70.06	H	C
	ATOM	5975	CD2	LEU	H 174	24.469	74.336	5.958	1.00	69.67	H	C

ATOM	5976	C	LEU	H	174	28.717	74.777	5.806	1.00	67.79	H	C
ATOM	5977	O	LEU	H	174	29.660	75.460	6.187	1.00	66.62	H	O
ATOM	5978	N	TYR	H	175	28.785	74.006	4.704	1.00	64.82	H	N
ATOM	5979	CA	TYR	H	175	30.001	74.020	3.906	1.00	62.23	H	C
ATOM	5980	CB	TYR	H	175	30.165	72.646	3.264	1.00	62.23	H	C
ATOM	5981	CG	TYR	H	175	30.532	71.653	4.307	1.00	62.65	H	C
ATOM	5982	CD1	TYR	H	175	31.855	71.542	4.721	1.00	63.65	H	C
ATOM	5983	CE1	TYR	H	175	32.217	70.597	5.663	1.00	63.25	H	C
ATOM	5984	CD2	TYR	H	175	29.569	70.808	4.851	1.00	62.78	H	C
ATOM	5985	CE2	TYR	H	175	29.935	69.851	5.790	1.00	63.05	H	C
ATOM	5986	CZ	TYR	H	175	31.254	69.741	6.188	1.00	63.80	H	C
ATOM	5987	OH	TYR	H	175	31.620	68.822	7.153	1.00	65.22	H	O
ATOM	5988	C	TYR	H	175	29.947	75.102	2.834	1.00	60.55	H	C
ATOM	5989	O	TYR	H	175	28.904	75.420	2.278	1.00	60.47	H	O
ATOM	5990	N	THR	H	176	31.145	75.617	2.509	1.00	58.14	H	N
ATOM	5991	CA	THR	H	176	31.271	76.400	1.320	1.00	56.65	H	C
ATOM	5992	CB	THR	H	176	31.337	77.854	1.722	1.00	56.64	H	C
ATOM	5993	OG1	THR	H	176	30.080	78.266	2.254	1.00	57.48	H	O
ATOM	5994	CG2	THR	H	176	31.662	78.674	0.474	1.00	55.36	H	C
ATOM	5995	C	THR	H	176	32.535	76.046	0.581	1.00	55.63	H	C
ATOM	5996	O	THR	H	176	33.607	75.880	1.154	1.00	54.15	H	O
ATOM	5997	N	LEU	H	177	32.406	75.891	-0.743	1.00	54.99	H	N
ATOM	5998	CA	LEU	H	177	33.644	75.711	-1.454	1.00	54.81	H	C
ATOM	5999	CB	LEU	H	177	33.997	74.226	-1.576	1.00	53.58	H	C
ATOM	6000	CG	LEU	H	177	33.205	73.434	-2.616	1.00	53.24	H	C
ATOM	6001	CD1	LEU	H	177	33.308	74.013	-4.022	1.00	51.50	H	C
ATOM	6002	CD2	LEU	H	177	33.717	71.984	-2.732	1.00	51.97	H	C
ATOM	6003	C	LEU	H	177	33.662	76.506	-2.744	1.00	55.13	H	C
ATOM	6004	O	LEU	H	177	32.702	77.156	-3.143	1.00	54.75	H	O
ATOM	6005	N	SER	H	178	34.839	76.548	-3.353	1.00	55.14	H	N
ATOM	6006	CA	SER	H	178	34.915	77.210	-4.621	1.00	56.14	H	C
ATOM	6007	CB	SER	H	178	35.455	78.635	-4.459	1.00	56.78	H	C
ATOM	6008	OG	SER	H	178	36.837	78.573	-4.103	1.00	59.10	H	O
ATOM	6009	C	SER	H	178	35.787	76.403	-5.564	1.00	56.78	H	C
ATOM	6010	O	SER	H	178	36.603	75.556	-5.159	1.00	57.21	H	O
ATOM	6011	N	SER	H	179	35.540	76.664	-6.871	1.00	57.71	H	N
ATOM	6012	CA	SER	H	179	36.339	76.082	-7.932	1.00	58.62	H	C
ATOM	6013	CB	SER	H	179	35.518	74.977	-8.584	1.00	58.75	H	C
ATOM	6014	OG	SER	H	179	36.313	74.361	-9.613	1.00	59.52	H	O
ATOM	6015	C	SER	H	179	36.675	77.129	-8.983	1.00	60.22	H	C
ATOM	6016	O	SER	H	179	35.889	78.005	-9.295	1.00	59.16	H	O
ATOM	6017	N	SER	H	180	37.916	77.008	-9.523	1.00	62.74	H	N
ATOM	6018	CA	SER	H	180	38.398	77.958	-10.511	1.00	65.02	H	C
ATOM	6019	CB	SER	H	180	39.555	78.780	-9.906	1.00	64.91	H	C
ATOM	6020	OG	SER	H	180	40.781	78.041	-9.914	1.00	65.15	H	O
ATOM	6021	C	SER	H	180	38.840	77.235	-11.782	1.00	66.68	H	C
ATOM	6022	O	SER	H	180	39.221	76.062	-11.807	1.00	66.57	H	O
ATOM	6023	N	VAL	H	181	38.720	77.943	-12.900	1.00	69.07	H	N
ATOM	6024	CA	VAL	H	181	39.191	77.339	-14.121	1.00	71.88	H	C
ATOM	6025	CB	VAL	H	181	37.992	76.656	-14.815	1.00	72.40	H	C
ATOM	6026	CG1	VAL	H	181	37.011	77.703	-15.337	1.00	71.91	H	C
ATOM	6027	CG2	VAL	H	181	38.489	75.812	-15.979	1.00	72.80	H	C
ATOM	6028	C	VAL	H	181	39.883	78.374	-15.003	1.00	74.04	H	C
ATOM	6029	O	VAL	H	181	39.424	79.508	-15.152	1.00	74.01	H	O
ATOM	6030	N	THR	H	182	41.088	77.980	-15.536	1.00	76.61	H	N
ATOM	6031	CA	THR	H	182	41.826	78.902	-16.431	1.00	79.82	H	C
ATOM	6032	CB	THR	H	182	43.277	79.125	-15.950	1.00	79.87	H	C
ATOM	6033	OG1	THR	H	182	43.322	79.384	-14.540	1.00	80.82	H	O
ATOM	6034	CG2	THR	H	182	43.896	80.294	-16.730	1.00	80.09	H	C
ATOM	6035	C	THR	H	182	41.812	78.403	-17.877	1.00	81.48	H	C
ATOM	6036	O	THR	H	182	41.963	77.221	-18.160	1.00	81.90	H	O

ATOM	6037	N	VAL	H	183	41.543	79.374	-18.794	1.00	83.41	H	N
ATOM	6038	CA	VAL	H	183	41.506	79.122	-20.231	1.00	85.28	H	C
ATOM	6039	CB	VAL	H	183	40.056	78.845	-20.658	1.00	84.90	H	C
ATOM	6040	CG1	VAL	H	183	39.492	77.605	-19.968	1.00	84.54	H	C
ATOM	6041	CG2	VAL	H	183	39.201	80.053	-20.320	1.00	84.50	H	C
ATOM	6042	C	VAL	H	183	41.963	80.374	-20.976	1.00	86.87	H	C
ATOM	6043	O	VAL	H	183	41.665	81.494	-20.600	1.00	86.42	H	O
ATOM	6044	N	PRO	H	184	42.719	80.179	-22.083	1.00	88.54	H	N
ATOM	6045	CD	PRO	H	184	43.143	78.934	-22.681	1.00	88.29	H	C
ATOM	6046	CA	PRO	H	184	43.109	81.278	-22.974	1.00	89.59	H	C
ATOM	6047	CB	PRO	H	184	43.425	80.640	-24.339	1.00	89.09	H	C
ATOM	6048	CG	PRO	H	184	43.020	79.171	-24.249	1.00	88.32	H	C
ATOM	6049	C	PRO	H	184	41.942	82.267	-23.160	1.00	90.99	H	C
ATOM	6050	O	PRO	H	184	40.788	81.907	-23.284	1.00	91.39	H	O
ATOM	6051	N	SER	H	185	42.265	83.573	-23.196	1.00	92.37	H	N
ATOM	6052	CA	SER	H	185	41.175	84.539	-23.307	1.00	93.92	H	C
ATOM	6053	CB	SER	H	185	41.796	85.917	-23.523	1.00	93.71	H	C
ATOM	6054	OG	SER	H	185	43.100	85.935	-22.948	1.00	93.45	H	O
ATOM	6055	C	SER	H	185	40.258	84.197	-24.482	1.00	95.37	H	C
ATOM	6056	O	SER	H	185	39.053	84.030	-24.357	1.00	95.82	H	O
ATOM	6057	N	SER	H	186	40.875	84.129	-25.669	1.00	96.71	H	N
ATOM	6058	CA	SER	H	186	40.143	83.774	-26.880	1.00	97.45	H	C
ATOM	6059	CB	SER	H	186	41.070	82.951	-27.779	1.00	97.22	H	C
ATOM	6060	OG	SER	H	186	42.409	83.051	-27.294	1.00	96.73	H	O
ATOM	6061	C	SER	H	186	38.872	82.975	-26.564	1.00	98.18	H	C
ATOM	6062	O	SER	H	186	37.752	83.440	-26.720	1.00	98.23	H	O
ATOM	6063	N	PRO	H	187	39.083	81.714	-26.142	1.00	98.67	H	N
ATOM	6064	CD	PRO	H	187	40.347	81.049	-25.882	1.00	99.12	H	C
ATOM	6065	CA	PRO	H	187	37.970	80.795	-25.903	1.00	98.81	H	C
ATOM	6066	CB	PRO	H	187	38.558	79.487	-25.379	1.00	98.64	H	C
ATOM	6067	CG	PRO	H	187	40.050	79.487	-25.685	1.00	99.00	H	C
ATOM	6068	C	PRO	H	187	36.928	81.342	-24.911	1.00	99.06	H	C
ATOM	6069	O	PRO	H	187	36.101	80.625	-24.368	1.00	99.21	H	O
ATOM	6070	N	ARG	H	188	37.001	82.663	-24.664	1.00	99.35	H	N
ATOM	6071	CA	ARG	H	188	36.126	83.344	-23.714	1.00	99.40	H	C
ATOM	6072	CB	ARG	H	188	36.567	82.959	-22.300	1.00	99.67	H	C
ATOM	6073	CG	ARG	H	188	35.443	82.305	-21.498	1.00	99.53	H	C
ATOM	6074	CD	ARG	H	188	34.248	83.247	-21.305	1.00	100.06	H	C
ATOM	6075	NE	ARG	H	188	34.581	84.322	-20.364	1.00	99.98	H	N
ATOM	6076	CZ	ARG	H	188	33.612	84.726	-19.521	1.00	100.11	H	C
ATOM	6077	NH1	ARG	H	188	32.423	84.150	-19.552	1.00	100.16	H	N
ATOM	6078	NH2	ARG	H	188	33.856	85.717	-18.659	1.00	99.90	H	N
ATOM	6079	C	ARG	H	188	36.183	84.865	-23.879	1.00	99.18	H	C
ATOM	6080	O	ARG	H	188	37.230	85.463	-24.085	1.00	99.88	H	O
ATOM	6081	N	PRO	H	189	34.992	85.489	-23.825	1.00	98.61	H	N
ATOM	6082	CD	PRO	H	189	34.695	86.909	-23.868	1.00	98.41	H	C
ATOM	6083	CA	PRO	H	189	33.737	84.759	-23.700	1.00	98.37	H	C
ATOM	6084	CB	PRO	H	189	32.648	85.752	-23.292	1.00	98.25	H	C
ATOM	6085	CG	PRO	H	189	33.290	87.128	-23.140	1.00	97.82	H	C
ATOM	6086	C	PRO	H	189	33.354	84.074	-25.015	1.00	98.61	H	C
ATOM	6087	O	PRO	H	189	32.206	83.732	-25.264	1.00	98.49	H	O
ATOM	6088	N	SER	H	190	34.360	83.922	-25.894	1.00	98.76	H	N
ATOM	6089	CA	SER	H	190	34.104	83.255	-27.163	1.00	98.88	H	C
ATOM	6090	CB	SER	H	190	35.433	82.711	-27.684	1.00	99.51	H	C
ATOM	6091	OG	SER	H	190	35.181	81.696	-28.655	1.00	100.20	H	O
ATOM	6092	C	SER	H	190	33.098	82.114	-26.993	1.00	98.50	H	C
ATOM	6093	O	SER	H	190	31.933	82.211	-27.357	1.00	98.43	H	O
ATOM	6094	N	GLU	H	191	33.602	80.989	-26.451	1.00	98.18	H	N
ATOM	6095	CA	GLU	H	191	32.708	79.880	-26.132	1.00	97.34	H	C
ATOM	6096	CB	GLU	H	191	33.438	78.565	-26.415	1.00	98.15	H	C
ATOM	6097	CG	GLU	H	191	34.403	78.669	-27.596	1.00	99.39	H	C

ATOM	6098	CD	GLU	H	191	35.565	77.727	-27.379	1.00	100.16	H	C
ATOM	6099	OE1	GLU	H	191	36.435	78.045	-26.581	1.00	100.89	H	O
ATOM	6100	OE2	GLU	H	191	35.586	76.673	-28.012	1.00	100.38	H	O
ATOM	6101	C	GLU	H	191	32.264	79.934	-24.669	1.00	96.18	H	C
ATOM	6102	O	GLU	H	191	32.723	80.747	-23.876	1.00	95.98	H	O
ATOM	6103	N	THR	H	192	31.308	79.047	-24.329	1.00	94.96	H	N
ATOM	6104	CA	THR	H	192	30.724	79.091	-22.994	1.00	93.78	H	C
ATOM	6105	CB	THR	H	192	29.277	78.623	-23.105	1.00	94.05	H	C
ATOM	6106	OG1	THR	H	192	29.253	77.410	-23.863	1.00	94.26	H	O
ATOM	6107	CG2	THR	H	192	28.440	79.678	-23.840	1.00	93.66	H	C
ATOM	6108	C	THR	H	192	31.487	78.205	-22.002	1.00	92.58	H	C
ATOM	6109	O	THR	H	192	31.918	77.102	-22.313	1.00	92.18	H	O
ATOM	6110	N	VAL	H	193	31.659	78.811	-20.824	1.00	90.80	H	N
ATOM	6111	CA	VAL	H	193	32.106	78.053	-19.668	1.00	88.60	H	C
ATOM	6112	CB	VAL	H	193	33.319	78.761	-19.062	1.00	88.07	H	C
ATOM	6113	CG1	VAL	H	193	33.150	80.273	-19.171	1.00	88.69	H	C
ATOM	6114	CG2	VAL	H	193	33.506	78.369	-17.610	1.00	87.63	H	C
ATOM	6115	C	VAL	H	193	30.967	77.958	-18.664	1.00	87.38	H	C
ATOM	6116	O	VAL	H	193	30.403	78.947	-18.214	1.00	87.20	H	O
ATOM	6117	N	THR	H	194	30.587	76.709	-18.396	1.00	85.54	H	N
ATOM	6118	CA	THR	H	194	29.492	76.478	-17.489	1.00	83.65	H	C
ATOM	6119	CB	THR	H	194	28.370	75.813	-18.285	1.00	83.86	H	C
ATOM	6120	OG1	THR	H	194	27.816	76.773	-19.185	1.00	84.35	H	O
ATOM	6121	CG2	THR	H	194	27.260	75.339	-17.346	1.00	82.99	H	C
ATOM	6122	C	THR	H	194	29.955	75.585	-16.355	1.00	82.17	H	C
ATOM	6123	O	THR	H	194	30.672	74.613	-16.553	1.00	82.55	H	O
ATOM	6124	N	CYS	H	195	29.544	75.716	-15.093	1.00	80.08	H	N
ATOM	6125	CA	CYS	H	195	30.051	74.784	-14.145	1.00	78.12	H	C
ATOM	6126	C	CYS	H	195	28.846	74.043	-13.572	1.00	76.08	H	C
ATOM	6127	O	CYS	H	195	27.748	74.587	-13.422	1.00	74.81	H	O
ATOM	6128	CB	CYS	H	195	30.825	75.600	-13.095	1.00	79.63	H	C
ATOM	6129	SG	CYS	H	195	29.974	75.843	-11.518	1.00	82.89	H	S
ATOM	6130	N	ASN	H	196	29.066	72.780	-13.183	1.00	74.40	H	N
ATOM	6131	CA	ASN	H	196	27.980	71.872	-12.865	1.00	72.95	H	C
ATOM	6132	CB	ASN	H	196	27.915	70.606	-13.774	1.00	72.15	H	C
ATOM	6133	CG	ASN	H	196	28.406	70.875	-15.164	1.00	71.83	H	C
ATOM	6134	OD1	ASN	H	196	29.525	71.162	-15.381	1.00	68.99	H	O
ATOM	6135	ND2	ASN	H	196	27.501	70.826	-16.106	1.00	73.50	H	N
ATOM	6136	C	ASN	H	196	28.281	71.399	-11.561	1.00	72.47	H	C
ATOM	6137	O	ASN	H	196	29.217	70.696	-11.342	1.00	72.10	H	O
ATOM	6138	N	VAL	H	197	27.318	71.586	-10.735	1.00	71.69	H	N
ATOM	6139	CA	VAL	H	197	27.429	71.327	-9.318	1.00	70.22	H	C
ATOM	6140	CB	VAL	H	197	27.179	72.629	-8.554	1.00	69.36	H	C
ATOM	6141	CG1	VAL	H	197	27.229	72.357	-7.046	1.00	67.95	H	C
ATOM	6142	CG2	VAL	H	197	28.253	73.643	-9.009	1.00	68.71	H	C
ATOM	6143	C	VAL	H	197	26.381	70.345	-8.905	1.00	69.75	H	C
ATOM	6144	O	VAL	H	197	25.213	70.530	-9.240	1.00	70.35	H	O
ATOM	6145	N	ALA	H	198	26.747	69.318	-8.145	1.00	68.57	H	N
ATOM	6146	CA	ALA	H	198	25.749	68.437	-7.608	1.00	67.67	H	C
ATOM	6147	CB	ALA	H	198	25.841	67.205	-8.296	1.00	67.30	H	C
ATOM	6148	C	ALA	H	198	25.921	68.201	-6.135	1.00	67.32	H	C
ATOM	6149	O	ALA	H	198	27.024	68.151	-5.641	1.00	66.23	H	O
ATOM	6150	N	HIS	H	199	24.826	67.953	-5.469	1.00	67.38	H	N
ATOM	6151	CA	HIS	H	199	24.776	67.804	-4.064	1.00	68.47	H	C
ATOM	6152	CB	HIS	H	199	24.255	69.073	-3.271	1.00	67.96	H	C
ATOM	6153	CG	HIS	H	199	24.329	68.894	-1.791	1.00	67.23	H	C
ATOM	6154	CD2	HIS	H	199	25.311	68.371	-1.013	1.00	66.87	H	C
ATOM	6155	ND1	HIS	H	199	23.282	69.150	-0.952	1.00	66.44	H	N
ATOM	6156	CE1	HIS	H	199	23.669	68.911	0.302	1.00	67.18	H	C
ATOM	6157	NE2	HIS	H	199	24.894	68.391	0.287	1.00	66.30	H	N
ATOM	6158	C	HIS	H	199	23.780	66.705	-3.971	1.00	69.13	H	C

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ATOM   6159  O   HIS H 199      22.637  67.026  -3.897  1.00 69.67      H   O
ATOM   6160  N   PRO H 200      24.226  65.441  -4.035  1.00 69.98      H   N
ATOM   6161  CD  PRO H 200      25.632  65.150  -4.215  1.00 69.33      H   C
ATOM   6162  CA  PRO H 200      23.392  64.222  -3.910  1.00 70.75      H   C
ATOM   6163  CB  PRO H 200      24.401  63.064  -3.673  1.00 70.87      H   C
ATOM   6164  CG  PRO H 200      25.708  63.634  -4.023  1.00 71.25      H   C
ATOM   6165  C   PRO H 200      22.503  64.261  -2.707  1.00 72.04      H   C
ATOM   6166  O   PRO H 200      21.333  64.016  -2.771  1.00 72.64      H   O
ATOM   6167  N   ALA H 201      23.032  64.644  -1.571  1.00 72.86      H   N
ATOM   6168  CA  ALA H 201      22.184  64.607  -0.379  1.00 72.98      H   C
ATOM   6169  CB  ALA H 201      22.890  65.109   0.764  1.00 72.38      H   C
ATOM   6170  C   ALA H 201      20.826  65.318  -0.529  1.00 73.61      H   C
ATOM   6171  O   ALA H 201      19.920  64.865   0.034  1.00 73.80      H   O
ATOM   6172  N   SER H 202      20.716  66.390  -1.286  1.00 74.32      H   N
ATOM   6173  CA  SER H 202      19.446  67.136  -1.396  1.00 75.64      H   C
ATOM   6174  CB  SER H 202      19.660  68.595  -0.939  1.00 76.16      H   C
ATOM   6175  OG  SER H 202      20.291  69.315  -2.024  1.00 76.25      H   O
ATOM   6176  C   SER H 202      18.957  67.126  -2.831  1.00 76.11      H   C
ATOM   6177  O   SER H 202      18.189  67.973  -3.318  1.00 76.18      H   O
ATOM   6178  N   SER H 203      19.464  66.185  -3.560  1.00 76.76      H   N
ATOM   6179  CA  SER H 203      18.892  65.969  -4.827  1.00 77.54      H   C
ATOM   6180  CB  SER H 203      17.413  65.525  -4.606  1.00 77.35      H   C
ATOM   6181  OG  SER H 203      17.284  64.168  -4.052  1.00 77.60      H   O
ATOM   6182  C   SER H 203      19.000  67.249  -5.719  1.00 77.79      H   C
ATOM   6183  O   SER H 203      18.065  67.645  -6.453  1.00 78.13      H   O
ATOM   6184  N   THR H 204      20.149  67.858  -5.688  1.00 77.85      H   N
ATOM   6185  CA  THR H 204      20.306  69.116  -6.344  1.00 78.95      H   C
ATOM   6186  CB  THR H 204      20.920  70.101  -5.307  1.00 79.06      H   C
ATOM   6187  OG1 THR H 204      20.042  70.161  -4.206  1.00 80.45      H   O
ATOM   6188  CG2 THR H 204      20.960  71.527  -5.762  1.00 79.18      H   C
ATOM   6189  C   THR H 204      21.192  68.896  -7.564  1.00 79.50      H   C
ATOM   6190  O   THR H 204      22.173  68.187  -7.512  1.00 79.85      H   O
ATOM   6191  N   LYS H 205      20.870  69.539  -8.645  1.00 80.18      H   N
ATOM   6192  CA  LYS H 205      21.768  69.545  -9.766  1.00 81.64      H   C
ATOM   6193  CB  LYS H 205      21.729  68.172 -10.481  1.00 81.77      H   C
ATOM   6194  CG  LYS H 205      22.428  68.031 -11.878  1.00 83.94      H   C
ATOM   6195  CD  LYS H 205      23.761  68.927 -12.188  1.00 85.65      H   C
ATOM   6196  CE  LYS H 205      24.377  68.628 -13.676  1.00 86.61      H   C
ATOM   6197  NZ  LYS H 205      25.873  68.732 -13.750  1.00 87.15      H   N
ATOM   6198  C   LYS H 205      21.510  70.851 -10.601  1.00 82.29      H   C
ATOM   6199  O   LYS H 205      20.392  71.121 -11.148  1.00 82.64      H   O
ATOM   6200  N   VAL H 206      22.546  71.701 -10.571  1.00 82.71      H   N
ATOM   6201  CA  VAL H 206      22.509  73.046 -11.125  1.00 83.11      H   C
ATOM   6202  CB  VAL H 206      22.556  74.056 -10.024  1.00 83.19      H   C
ATOM   6203  CG1 VAL H 206      22.550  75.540 -10.675  1.00 83.85      H   C
ATOM   6204  CG2 VAL H 206      21.380  73.847  -9.119  1.00 82.83      H   C
ATOM   6205  C   VAL H 206      23.694  73.338 -12.032  1.00 83.70      H   C
ATOM   6206  O   VAL H 206      24.827  72.842 -11.783  1.00 83.58      H   O
ATOM   6207  N   ASP H 207      23.422  74.134 -13.075  1.00 84.95      H   N
ATOM   6208  CA  ASP H 207      24.462  74.532 -14.042  1.00 86.38      H   C
ATOM   6209  CB  ASP H 207      24.270  73.858 -15.435  1.00 86.99      H   C
ATOM   6210  CG  ASP H 207      24.342  72.302 -15.384  1.00 88.63      H   C
ATOM   6211  OD1 ASP H 207      25.436  71.773 -15.662  1.00 88.98      H   O
ATOM   6212  OD2 ASP H 207      23.380  71.538 -15.103  1.00 89.52      H   O
ATOM   6213  C   ASP H 207      24.456  76.044 -14.123  1.00 87.07      H   C
ATOM   6214  O   ASP H 207      23.501  76.601 -14.580  1.00 86.95      H   O
ATOM   6215  N   ALA H 208      25.484  76.710 -13.580  1.00 87.90      H   N
ATOM   6216  CA  ALA H 208      25.563  78.160 -13.722  1.00 88.66      H   C
ATOM   6217  CB  ALA H 208      25.811  78.899 -12.475  1.00 87.84      H   C
ATOM   6218  C   ALA H 208      26.572  78.528 -14.793  1.00 89.66      H   C
ATOM   6219  O   ALA H 208      27.793  78.193 -14.774  1.00 89.70      H   O
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ATOM	6220	N	LYS	H	209	25.997	79.265	-15.730	1.00	90.60	H	N
ATOM	6221	CA	LYS	H	209	26.707	79.881	-16.848	1.00	91.34	H	C
ATOM	6222	CB	LYS	H	209	25.694	80.141	-17.964	1.00	91.16	H	C
ATOM	6223	CG	LYS	H	209	26.283	80.980	-19.098	1.00	91.01	H	C
ATOM	6224	CD	LYS	H	209	25.227	81.362	-20.136	1.00	90.83	H	C
ATOM	6225	CE	LYS	H	209	25.837	81.992	-21.392	1.00	90.53	H	C
ATOM	6226	NZ	LYS	H	209	24.796	82.699	-22.135	1.00	89.44	H	N
ATOM	6227	C	LYS	H	209	27.401	81.189	-16.447	1.00	91.78	H	C
ATOM	6228	O	LYS	H	209	26.832	82.071	-15.816	1.00	91.55	H	O
ATOM	6229	N	ILE	H	210	28.695	81.276	-16.805	1.00	92.64	H	N
ATOM	6230	CA	ILE	H	210	29.438	82.494	-16.508	1.00	93.49	H	C
ATOM	6231	CB	ILE	H	210	30.918	82.136	-16.427	1.00	92.09	H	C
ATOM	6232	CG2	ILE	H	210	31.654	83.154	-15.536	1.00	91.71	H	C
ATOM	6233	CG1	ILE	H	210	31.088	80.751	-15.794	1.00	91.25	H	C
ATOM	6234	CD1	ILE	H	210	30.409	80.649	-14.424	1.00	90.25	H	C
ATOM	6235	C	ILE	H	210	29.192	83.572	-17.570	1.00	95.01	H	C
ATOM	6236	O	ILE	H	210	29.623	83.485	-18.713	1.00	95.16	H	O
ATOM	6237	N	ALA	H	211	28.423	84.594	-17.155	1.00	96.52	H	N
ATOM	6238	CA	ALA	H	211	27.957	85.595	-18.107	1.00	97.96	H	C
ATOM	6239	CB	ALA	H	211	26.989	86.529	-17.376	1.00	97.85	H	C
ATOM	6240	C	ALA	H	211	29.105	86.409	-18.708	1.00	99.08	H	C
ATOM	6241	O	ALA	H	211	29.787	85.997	-19.636	1.00	99.14	H	O
ATOM	6242	N	ALA	H	212	29.276	87.629	-18.171	1.00	100.17	H	N
ATOM	6243	CA	ALA	H	212	30.290	88.518	-18.725	1.00	101.26	H	C
ATOM	6244	CB	ALA	H	212	29.844	88.922	-20.131	1.00	101.45	H	C
ATOM	6245	C	ALA	H	212	30.480	89.764	-17.861	1.00	101.96	H	C
ATOM	6246	O	ALA	H	212	31.345	89.835	-16.998	1.00	102.21	H	O
ATOM	6247	N	ALA	H	213	29.660	90.793	-18.151	1.00	103.01	H	N
ATOM	6248	CA	ALA	H	213	29.750	92.013	-17.360	1.00	104.14	H	C
ATOM	6249	CB	ALA	H	213	29.407	91.661	-15.911	1.00	104.00	H	C
ATOM	6250	C	ALA	H	213	31.154	92.615	-17.425	1.00	105.06	H	C
ATOM	6251	O	ALA	H	213	31.731	93.023	-16.428	1.00	105.39	H	O
ATOM	6252	OXT	ALA	H	213	31.766	92.717	-18.478	1.00	105.71	H	O
ATOM	6253	O	HOH	W	1	48.040	27.606	-7.533	1.00	43.49	W	O
ATOM	6254	O	HOH	W	2	56.255	30.910	-4.462	1.00	55.47	W	O
ATOM	6255	O	HOH	W	3	53.943	67.195	-8.118	1.00	54.98	W	O
ATOM	6256	O	HOH	W	4	26.430	18.335	-11.581	1.00	44.42	W	O
ATOM	6257	O	HOH	W	5	35.131	45.610	-13.929	1.00	49.40	W	O
ATOM	6258	O	HOH	W	6	32.116	35.087	-8.534	1.00	56.83	W	O
ATOM	6259	O	HOH	W	7	51.776	59.864	11.192	1.00	42.02	W	O
ATOM	6260	O	HOH	W	8	44.767	37.321	-4.124	1.00	42.78	W	O
ATOM	6261	O	HOH	W	9	39.735	52.975	-5.906	1.00	61.02	W	O
ATOM	6262	O	HOH	W	10	51.943	57.484	12.566	1.00	39.47	W	O
ATOM	6263	O	HOH	W	11	38.747	31.228	-1.651	1.00	43.69	W	O
ATOM	6264	O	HOH	W	12	46.181	62.163	0.296	1.00	56.40	W	O
ATOM	6265	O	HOH	W	13	58.428	47.238	4.389	1.00	48.79	W	O
ATOM	6266	O	HOH	W	14	43.554	36.444	-2.054	1.00	45.57	W	O
ATOM	6267	O	HOH	W	15	57.415	61.701	12.627	1.00	41.49	W	O
ATOM	6268	O	HOH	W	16	61.270	51.287	12.253	1.00	67.52	W	O
ATOM	6269	O	HOH	W	18	48.459	41.310	-2.576	1.00	48.81	W	O
ATOM	6270	O	HOH	W	19	53.916	29.663	7.818	1.00	48.60	W	O
ATOM	6271	O	HOH	W	20	56.558	71.377	-0.532	1.00	48.14	W	O
ATOM	6272	O	HOH	W	21	32.808	27.123	-0.609	1.00	44.93	W	O
ATOM	6273	O	HOH	W	22	47.847	62.036	-10.526	1.00	63.97	W	O
ATOM	6274	O	HOH	W	23	36.925	77.944	-1.838	1.00	50.62	W	O
ATOM	6275	O	HOH	W	24	26.214	42.194	14.054	1.00	63.38	W	O
ATOM	6276	O	HOH	W	25	45.644	56.046	9.966	1.00	42.51	W	O
ATOM	6277	O	HOH	W	26	44.856	70.990	1.971	1.00	72.82	W	O
ATOM	6278	O	HOH	W	27	41.934	61.986	-0.999	1.00	78.26	W	O
ATOM	6279	O	HOH	W	28	25.281	34.502	-1.348	1.00	61.27	W	O
ATOM	6280	O	HOH	W	29	49.892	62.411	-6.980	1.00	59.50	W	O

	ATOM	6281	O	HOH	W	30	29.792	66.376	5.878	1.00	52.90	W	O
	ATOM	6282	O	HOH	W	31	38.272	58.084	-4.321	1.00	65.01	W	O
	ATOM	6283	O	HOH	W	32	27.858	55.054	-6.230	1.00	56.02	W	O
	ATOM	6284	O	HOH	W	33	57.799	63.672	-12.243	1.00	59.48	W	O
5	ATOM	6285	O	HOH	W	34	31.795	68.789	0.185	1.00	63.03	W	O
	ATOM	6286	O	HOH	W	35	38.425	31.427	-8.589	1.00	60.62	W	O
	ATOM	6287	O	HOH	W	36	46.860	66.957	-9.197	1.00	54.26	W	O
	ATOM	6288	O	HOH	W	37	36.028	69.393	-9.044	1.00	62.22	W	O
	ATOM	6289	O	HOH	W	38	41.452	74.029	2.581	1.00	57.03	W	O
10	ATOM	6290	O	HOH	W	39	61.277	8.820	8.379	1.00	45.17	W	O
	ATOM	6291	O	HOH	W	40	58.226	38.911	5.165	1.00	58.24	W	O
	ATOM	6292	O	HOH	W	41	45.000	61.694	3.280	1.00	67.77	W	O
	ATOM	6293	O	HOH	W	42	32.220	33.159	-1.482	1.00	54.51	W	O
	ATOM	6294	O	HOH	W	43	24.268	56.225	-2.604	1.00	75.87	W	O
15	ATOM	6295	O	HOH	W	44	43.870	51.811	12.171	1.00	43.94	W	O
	ATOM	6296	O	HOH	W	45	45.208	48.980	-4.712	1.00	41.05	W	O
	ATOM	6297	O	HOH	W	46	51.086	54.354	-7.830	1.00	52.34	W	O
	ATOM	6298	O	HOH	W	47	45.735	54.909	12.584	1.00	47.53	W	O
	ATOM	6299	O	HOH	W	48	40.670	36.691	-0.514	1.00	40.03	W	O
20	ATOM	6300	O	HOH	W	49	47.855	48.291	-6.195	1.00	47.98	W	O
	ATOM	6301	O	HOH	W	50	27.975	20.736	-9.226	1.00	61.39	W	O
	ATOM	6302	O	HOH	W	51	26.649	37.011	3.912	1.00	54.89	W	O
	ATOM	6303	O	HOH	W	52	40.332	12.184	-6.970	1.00	60.26	W	O
	ATOM	6304	O	HOH	W	53	26.889	4.626	-22.012	1.00	50.29	W	O
25	ATOM	6305	O	HOH	W	54	46.332	35.286	4.217	1.00	42.35	W	O
	ATOM	6306	O	HOH	W	55	38.286	11.976	-5.012	1.00	47.62	W	O
	ATOM	6307	O	HOH	W	56	52.678	29.083	-13.037	1.00	74.09	W	O
	ATOM	6308	O	HOH	W	57	42.010	49.514	12.090	1.00	48.80	W	O
	ATOM	6309	O	HOH	W	58	34.530	60.323	12.849	1.00	51.87	W	O
30	ATOM	6310	O	HOH	W	59	35.892	62.030	6.806	1.00	67.89	W	O
	ATOM	6311	O	HOH	W	60	32.190	8.378	-14.298	1.00	57.42	W	O
	ATOM	6312	O	HOH	W	61	45.527	38.449	11.020	1.00	42.83	W	O
	ATOM	6313	O	HOH	W	62	45.913	56.892	-4.556	1.00	49.15	W	O
	ATOM	6314	O	HOH	W	63	38.310	29.708	-4.579	1.00	59.27	W	O
35	ATOM	6315	O	HOH	W	64	54.611	60.457	12.380	1.00	48.38	W	O
	ATOM	6316	O	HOH	W	65	39.898	13.402	4.429	1.00	56.14	W	O
	ATOM	6317	O	HOH	W	66	44.938	65.750	1.699	1.00	77.41	W	O
	ATOM	6318	O	HOH	W	67	22.644	47.300	-3.327	1.00	78.49	W	O
	ATOM	6319	O	HOH	W	68	40.739	60.462	13.589	1.00	57.60	W	O
40	ATOM	6320	O	HOH	W	69	58.604	38.401	16.276	1.00	63.25	W	O
	ATOM	6321	O	HOH	W	70	23.021	50.256	-0.331	1.00	64.43	W	O
	ATOM	6322	O	HOH	W	72	36.562	76.332	0.228	1.00	59.77	W	O
	ATOM	6323	O	HOH	W	73	36.156	30.941	5.240	1.00	54.66	W	O
	ATOM	6324	O	HOH	W	74	46.575	45.898	-6.213	1.00	51.03	W	O
45	ATOM	6325	O	HOH	W	75	63.106	60.743	5.288	1.00	65.63	W	O
	ATOM	6326	O	HOH	W	76	27.283	11.656	-26.940	1.00	64.69	W	O
	ATOM	6327	O	HOH	W	77	42.119	12.906	-15.812	1.00	69.75	W	O
	ATOM	6328	O	HOH	W	78	56.213	74.271	0.210	1.00	49.07	W	O
	ATOM	6329	O	HOH	W	79	49.593	17.074	4.731	1.00	51.22	W	O
50	ATOM	6330	O	HOH	W	80	19.205	50.436	6.981	1.00	65.58	W	O
	ATOM	6331	O	HOH	W	81	62.469	45.075	15.496	1.00	57.05	W	O
	ATOM	6332	O	HOH	W	82	63.942	60.529	2.662	1.00	65.56	W	O
	ATOM	6333	O	HOH	W	83	51.559	22.884	-12.355	1.00	53.77	W	O
	ATOM	6334	O	HOH	W	84	56.702	18.717	-5.348	1.00	60.77	W	O
55	ATOM	6335	O	HOH	W	85	56.703	13.170	-0.339	1.00	53.66	W	O
	ATOM	6336	O	HOH	W	86	38.703	45.090	18.422	1.00	49.89	W	O
	ATOM	6337	O	HOH	W	87	55.180	62.436	-12.094	1.00	62.42	W	O
	ATOM	6338	O	HOH	W	88	53.098	34.493	-1.712	1.00	40.29	W	O
	ATOM	6339	O	HOH	W	89	42.579	52.369	-5.068	1.00	63.35	W	O
60	ATOM	6340	O	HOH	W	90	57.341	68.463	4.885	1.00	63.09	W	O
	ATOM	6341	O	HOH	W	91	61.045	40.263	-1.253	1.00	61.58	W	O

	ATOM	6342	O	HOH	W	92	35.567	69.261	-15.191	1.00	63.58	W	O
	ATOM	6343	O	HOH	W	93	56.069	24.458	4.847	1.00	55.61	W	O
	ATOM	6344	O	HOH	W	94	42.082	14.769	-10.703	1.00	76:08	W	O
	ATOM	6345	O	HOH	W	95	30.011	60.161	-0.586	1.00	56.59	W	O
5	ATOM	6346	O	HOH	W	96	38.436	48.430	17.977	1.00	68.46	W	O
	ATOM	6347	O	HOH	W	98	50.322	24.776	-13.192	1.00	58.28	W	O
	ATOM	6348	O	HOH	W	99	58.464	55.474	13.643	1.00	51.66	W	O
	ATOM	6349	O	HOH	W	100	44.700	36.694	-6.969	1.00	70.56	W	O
	ATOM	6350	O	HOH	W	102	23.656	17.781	-5.182	1.00	68.07	W	O
10	ATOM	6351	O	HOH	W	103	37.411	50.148	-8.219	1.00	52.24	W	O
	ATOM	6352	O	HOH	W	104	39.637	14.794	-13.739	1.00	66.82	W	O
	ATOM	6353	O	HOH	W	106	28.717	35.027	-8.770	1.00	79.00	W	O
	ATOM	6354	O	HOH	W	107	44.180	52.426	14.928	1.00	53.12	W	O
	ATOM	6355	O	HOH	W	108	45.966	31.344	10.771	1.00	64.16	W	O
15	ATOM	6356	O	HOH	W	110	50.431	24.443	9.057	1.00	57.10	W	O
	ATOM	6357	O	HOH	W	111	60.167	46.654	-5.172	1.00	82.35	W	O
	ATOM	6358	O	HOH	W	112	53.600	25.361	9.729	1.00	80.85	W	O
	ATOM	6359	O	HOH	W	113	24.145	20.686	-4.121	1.00	82.35	W	O
	ATOM	6360	O	HOH	W	114	24.876	23.040	-17.596	1.00	66.24	W	O
20	ATOM	6361	O	HOH	W	115	51.643	3.467	3.813	1.00	69.60	W	O
	ATOM	6362	O	HOH	W	116	37.627	61.517	4.930	1.00	61.35	W	O
	ATOM	6363	O	HOH	W	117	54.093	37.319	-7.747	1.00	63.69	W	O
	ATOM	6364	O	HOH	W	118	27.162	50.144	-5.258	1.00	63.24	W	O
	ATOM	6365	O	HOH	W	119	51.286	63.607	8.442	1.00	55.40	W	O
25	ATOM	6366	O	HOH	W	120	49.202	62.361	7.879	1.00	56.22	W	O
	ATOM	6367	O	HOH	W	121	28.413	38.641	11.608	1.00	58.68	W	O
	ATOM	6368	O	HOH	W	122	54.149	22.502	-12.184	1.00	58.04	W	O
	ATOM	6369	O	HOH	W	123	42.924	49.950	-5.329	1.00	55.71	W	O
	ATOM	6370	O	HOH	W	124	55.168	8.794	0.302	1.00	56.19	W	O
30	ATOM	6371	O	HOH	W	125	30.285	12.190	-25.537	1.00	55.20	W	O
	ATOM	6372	O	HOH	W	126	28.498	1.566	-1.711	1.00	65.33	W	O
	ATOM	6373	O	HOH	W	127	29.591	65.606	8.390	1.00	77.20	W	O
	ATOM	6374	O	HOH	W	128	36.172	56.763	14.794	1.00	66.67	W	O
	ATOM	6375	O	HOH	W	129	42.258	8.230	-13.604	1.00	65.20	W	O
35	ATOM	6376	O	HOH	W	130	46.138	51.846	16.640	1.00	54.65	W	O
	ATOM	6377	O	HOH	W	131	27.630	60.434	19.677	1.00	59.03	W	O
	ATOM	6378	O	HOH	W	132	45.177	68.255	-15.282	1.00	83.69	W	O
	ATOM	6379	O	HOH	W	133	20.606	52.417	4.041	1.00	68.39	W	O
	ATOM	6380	O	HOH	W	134	29.093	9.721	-4.723	1.00	97.13	W	O
40	ATOM	6381	O	HOH	W	136	51.100	80.703	-12.102	1.00	69.57	W	O
	ATOM	6382	O	HOH	W	137	21.223	52.941	19.573	1.00	89.91	W	O
	ATOM	6383	O	HOH	W	138	39.908	48.609	13.428	1.00	54.77	W	O
	ATOM	6384	O	HOH	W	139	22.630	41.252	3.257	1.00	75.57	W	O
	ATOM	6385	O	HOH	W	140	55.368	43.479	-8.878	1.00	50.93	W	O
45	ATOM	6386	O	HOH	W	142	25.657	65.193	-1.065	1.00	56.79	W	O
	ATOM	6387	O	HOH	W	143	21.041	43.339	2.736	1.00	79.16	W	O
	ATOM	6388	O	HOH	W	144	51.583	5.155	-0.072	1.00	68.07	W	O
	ATOM	6389	O	HOH	W	145	32.286	-14.727	-19.514	1.00	82.03	W	O
	ATOM	6390	O	HOH	W	146	41.985	68.503	1.865	1.00	84.68	W	O
50	ATOM	6391	O	HOH	W	147	34.846	77.589	-31.096	1.00	87.07	W	O
	ATOM	6392	O	HOH	W	148	48.125	34.528	-8.668	1.00	64.10	W	O
	ATOM	6393	O	HOH	W	149	59.944	18.444	-11.075	1.00	80.97	W	O
	ATOM	6394	O	HOH	W	150	61.671	43.988	18.926	1.00	73.57	W	O
	ATOM	6395	O	HOH	W	151	53.973	39.898	-6.529	1.00	63.01	W	O
55	ATOM	6396	O	HOH	W	152	33.054	13.127	-22.134	1.00	46.54	W	O
	ATOM	6397	O	HOH	W	153	40.317	33.419	9.150	1.00	64.69	W	O
	ATOM	6398	O	HOH	W	154	49.628	68.076	-0.443	1.00	66.41	W	O
	ATOM	6399	O	HOH	W	155	40.949	12.531	1.841	1.00	57.31	W	O
	ATOM	6400	O	HOH	W	156	39.019	24.898	8.414	1.00	67.94	W	O
60	ATOM	6401	O	HOH	W	157	42.102	51.146	16.080	1.00	68.46	W	O
	ATOM	6402	O	HOH	W	158	48.299	4.489	-2.634	1.00	56.56	W	O

ATOM	6403	O	HOH W 159	49.392	30.418	-9.479	1.00	58.57		W	O
ATOM	6404	O	HOH W 160	45.974	71.344	-7.813	1.00	68.35		W	O
ATOM	6405	O	HOH W 161	62.463	57.842	8.393	1.00	68.93		W	O
ATOM	6406	O	HOH W 162	62.314	3.853	-8.007	1.00	72.85		W	O
ATOM	6407	O	HOH W 163	48.708	28.590	-11.402	1.00	70.46		W	O
ATOM	6408	O	HOH W 164	26.594	22.894	-11.356	1.00	72.66		W	O
ATOM	6409	O	HOH W 165	27.650	57.278	-2.348	1.00	75.27		W	O
ATOM	6410	O	HOH W 166	27.594	60.020	0.150	1.00	62.76		W	O
ATOM	6411	O	HOH W 167	43.450	54.030	-6.900	1.00	85.08		W	O
ATOM	6412	O	HOH W 168	38.122	59.238	-1.849	1.00	56.87		W	O
ATOM	6413	O	HOH W 169	27.129	39.301	13.729	1.00	68.09		W	O
ATOM	6414	O	HOH W 170	62.114	9.622	5.962	1.00	50.86		W	O
ATOM	6415	O	HOH W 171	46.578	59.161	-10.262	1.00	77.64		W	O
ATOM	6416	O	HOH W 172	48.228	52.442	14.549	1.00	51.18		W	O
ATOM	6417	O	HOH W 173	70.197	2.753	-7.042	1.00	87.49		W	O
ATOM	6418	O	HOH W 174	64.004	2.450	-6.765	1.00	69.28		W	O
ATOM	6419	O	HOH W 175	42.696	-4.990	-18.564	1.00	72.72		W	O
ATOM	6420	O	HOH W 177	18.059	23.624	-13.442	1.00	101.30		W	O
ATOM	6421	O	HOH W 180	15.355	21.664	-29.333	1.00	68.26		W	O
ATOM	6422	O	HOH W 181	35.274	18.207	-15.496	1.00	81.17		W	O
ATOM	6423	O	HOH W 182	37.734	20.058	-17.674	1.00	76.65		W	O
ATOM	6424	O	HOH W 183	4.398	9.996	-27.101	1.00	73.23		W	O
ATOM	6425	O	HOH W 184	25.726	62.296	18.755	1.00	68.08		W	O
ATOM	6426	O	HOH W 185	55.967	5.969	6.509	1.00	63.28		W	O
ATOM	6427	O	HOH W 186	52.635	32.458	16.778	1.00	64.30		W	O
ATOM	6428	O	HOH W 187	42.187	61.267	1.486	1.00	63.63		W	O
ATOM	6429	O	HOH W 188	54.080	67.804	9.345	1.00	73.07		W	O
ATOM	6430	O	HOH W 191	39.373	49.817	15.778	1.00	73.96		W	O
ATOM	6431	O	HOH W 192	30.145	48.697	18.491	1.00	67.43		W	O
ATOM	6432	O	HOH W 193	58.517	28.333	-10.692	1.00	64.51		W	O
ATOM	6433	O	HOH W 194	66.066	47.014	5.586	1.00	70.05		W	O
ATOM	6434	O	HOH W 195	60.708	45.623	-2.248	1.00	54.73		W	O
ATOM	6435	O	HOH W 197	40.532	56.318	-5.957	1.00	61.38		W	O
ATOM	6436	O	HOH W 198	59.085	42.157	-5.617	1.00	63.62		W	O
ATOM	6437	O	HOH W 199	58.018	28.117	9.569	1.00	59.02		W	O
ATOM	6438	O	HOH W 200	62.084	19.823	-10.491	1.00	91.05		W	O
ATOM	6439	O	HOH W 201	71.317	-2.871	5.295	1.00	80.75		W	O
ATOM	6440	O	HOH W 202	25.844	56.209	-4.399	1.00	67.04		W	O
ATOM	6441	O	HOH W 203	50.532	31.124	13.305	1.00	78.61		W	O
ATOM	6442	O	HOH W 204	25.247	43.277	5.774	1.00	53.65		W	O
ATOM	6443	O	HOH W 205	53.767	36.272	-4.050	1.00	82.87		W	O
ATOM	6444	O	HOH W 206	53.294	78.768	-11.698	1.00	56.03		W	O
ATOM	6445	O	HOH W 207	47.425	27.397	11.529	1.00	75.72		W	O
ATOM	6446	O	HOH W 208	51.605	34.818	15.792	1.00	75.55		W	O
ATOM	6447	O	HOH W 209	43.903	15.886	-13.465	1.00	74.13		W	O
ATOM	6448	O	HOH W 210	46.556	14.040	-14.514	1.00	91.12		W	O
ATOM	6449	O	HOH W 211	40.263	22.624	-18.077	1.00	89.07		W	O
ATOM	6450	O	HOH W 213	55.658	6.616	-2.956	1.00	84.65		W	O
ATOM	6451	O	HOH W 214	58.186	32.450	2.029	1.00	61.74		W	O
ATOM	6452	O	HOH W 215	58.141	37.758	1.259	1.00	61.98		W	O
ATOM	6453	O	HOH W 216	56.966	35.250	2.674	1.00	57.55		W	O
ATOM	6454	O	HOH W 217	55.211	32.727	-4.777	1.00	53.03		W	O
ATOM	6455	O	HOH W 218	52.367	31.257	-12.864	1.00	74.72		W	O
ATOM	6456	O	HOH W 220	56.462	36.886	-6.283	1.00	63.55		W	O
ATOM	6457	O	HOH W 224	29.998	24.261	-5.658	1.00	60.64		W	O
ATOM	6458	O	HOH W 225	24.007	3.807	-7.206	1.00	62.70		W	O
ATOM	6459	O	HOH W 226	45.167	21.855	11.818	1.00	88.68		W	O
ATOM	6460	O	HOH W 227	53.676	66.697	12.072	1.00	56.13		W	O
ATOM	6461	O	HOH W 229	51.011	64.329	11.868	1.00	95.18		W	O
ATOM	6462	O	HOH W 230	39.248	30.285	10.392	1.00	80.36		W	O
ATOM	6463	O	HOH W 231	44.473	38.407	17.076	1.00	62.67		W	O

ATOM	6464	O	HOH W 235	25.679	2.154	-15.868	1.00	53.86	W	O
ATOM	6465	O	HOH W 236	32.236	5.660	-21.135	1.00	68.77	W	O
ATOM	6466	O	HOH W 237	34.413	28.315	6.252	1.00	71.91	W	O
ATOM	6467	O	HOH W 238	27.724	33.801	2.425	1.00	70.02	W	O
ATOM	6468	O	HOH W 239	56.205	67.777	2.833	1.00	75.06	W	O
ATOM	6469	O	HOH W 240	66.188	51.600	-3.826	1.00	72.09	W	O
ATOM	6470	O	HOH W 242	63.285	59.362	7.053	1.00	69.81	W	O
ATOM	6471	O	HOH W 243	60.113	26.378	-1.506	1.00	76.04	W	O
ATOM	6472	O	HOH W 244	57.113	41.670	20.487	1.00	55.69	W	O
ATOM	6473	O	HOH W 245	46.457	68.175	-11.707	1.00	85.84	W	O
ATOM	6474	O	HOH W 246	42.305	5.455	-2.908	1.00	75.40	W	O
ATOM	6475	O	HOH W 247	32.141	54.995	-5.609	1.00	64.97	W	O
ATOM	6476	O	HOH W 248	58.909	60.333	14.761	1.00	63.95	W	O
ATOM	6477	O	HOH W 249	38.763	42.049	16.135	1.00	67.39	W	O
ATOM	6478	O	HOH W 250	39.214	62.955	17.104	1.00	75.29	W	O
ATOM	6479	O	HOH W 252	60.671	39.189	7.433	1.00	55.23	W	O
ATOM	6480	O	HOH W 253	38.380	64.692	15.501	1.00	74.82	W	O
ATOM	6481	O	HOH W 254	44.133	17.210	-18.228	1.00	87.18	W	O
ATOM	6482	O	HOH W 255	32.114	36.860	-9.882	1.00	84.19	W	O
ATOM	6483	O	HOH W 256	46.385	47.101	-10.075	1.00	80.35	W	O
ATOM	6484	O	HOH W 257	48.734	74.644	-7.834	1.00	65.87	W	O
ATOM	6485	O	HOH W 258	40.889	36.343	13.840	1.00	58.72	W	O
ATOM	6486	O	HOH W 259	26.565	62.889	1.610	1.00	67.80	W	O
ATOM	6487	O	HOH W 260	48.882	1.237	-9.586	1.00	88.07	W	O
ATOM	6488	O	HOH W 261	17.126	54.786	10.638	1.00	79.86	W	O
ATOM	6489	O	HOH W 263	36.298	73.093	7.560	1.00	65.44	W	O
ATOM	6490	O	HOH W 264	39.791	69.041	4.490	1.00	78.57	W	O
ATOM	6491	O	HOH W 266	58.200	30.543	-12.662	1.00	86.34	W	O
ATOM	6492	O	HOH W 267	54.753	45.537	-11.451	1.00	73.79	W	O
ATOM	6493	O	HOH W 268	40.914	69.799	-20.286	1.00	77.77	W	O
ATOM	6494	O	HOH W 269	22.521	42.813	6.948	1.00	80.04	W	O
ATOM	6495	O	HOH W 270	31.954	46.535	-10.594	1.00	58.81	W	O
ATOM	6496	O	HOH W 271	33.809	27.047	-12.285	1.00	72.26	W	O
ATOM	6497	O	HOH W 272	67.372	52.181	-0.866	1.00	83.95	W	O
ATOM	6498	O	HOH W 273	49.002	32.971	-10.475	1.00	73.13	W	O
ATOM	6499	O	HOH W 274	36.608	60.824	14.598	1.00	81.86	W	O
ATOM	6500	O	HOH W 275	19.219	1.308	-19.062	1.00	55.79	W	O

[a]Amino acids residues of the light (L) and heavy (H) chains are numbered according to the Chothia numbering system as shown in Tables 6 and 7, respectively (Al-Lazikani *et al., Jour. Mol. Biol.* 273:927-948, 1997). Amino acid residues of IL-13 (I) are numbered as shown in SEQ ID NO:4 (FIG. 2B). Amino acid residues of IL-13Rα1 are numbered as shown in SEQ ID NO:12 (FIG. 14).
[b]Columns are labeled according to Protein Data Bank Format, Version 2.2

Other embodiments are in the claims

WHAT IS CLAIMED IS:

1. A crystalline antibody, wherein the antibody comprises an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

2. The crystalline antibody of claim 1, wherein the crystalline antibody has space group $P2_12_12_1$.

3. The crystalline antibody according to any one of claims 1 or 2, wherein the crystalline antibody has unit cell dimensions a=54.4, b=98.0, c=108.5, and $\alpha=\beta=\gamma=90°$.

4. The crystalline antibody according to any one of claims 1-3, wherein the antibody is from a mammal.

5. The crystalline antibody according to any one of claims 1-4, wherein the antibody is from a mouse, rat, rabbit, or goat.

6. The crystalline antibody according to any one of claims 1-5, further comprising an IL-13 polypeptide bound to the antibody.

7. The crystalline antibody of claim 6, further comprising an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

8. The crystalline antibody according to any one of claims 1-7, wherein the antibody comprises a polypeptide including the amino acid sequence of SEQ ID NO:1.

9. The crystalline antibody according to any one of claims 1-8, wherein the antibody comprises a polypeptide including the amino acid sequence of SEQ ID NO:2.

10. The crystalline antibody according to any one of claims 1-9, wherein the antibody is a monoclonal antibody.

11. The crystalline antibody according to any one of claims 1-10, wherein the antibody is mAb13.2.

12. The crystalline antibody according to any one of claims 1-11, wherein the antibody is an mAb13.2 Fab fragment.

13. The crystalline antibody according to any one of claims 1-12, wherein the antibody is capable of binding to a region of IL-13 that binds to an IL-4R polypeptide *in vivo*.

14. The crystalline antibody according to any one of claims 1-13, wherein the crystalline antibody can diffract X-rays to a resolution of at least about 3.5 Å.

15. The crystalline antibody according to any one of claims 1-14, wherein the crystalline antibody comprises the structural coordinates of Table 10, +/- a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

16. The crystalline antibody according to any one of claims 1-15, wherein:

the light chain of the antibody comprises the amino acid sequence of SEQ ID NO:1;

the heavy chain of the antibody comprises the amino acid sequence of SEQ ID NO:2; and

the crystalline antibody diffracts X-rays to a resolution of at least about 3.5 Å.

17. A crystalline composition that comprises an antibody, wherein the antibody comprises an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

18. The crystalline composition of claim 17, further comprising at least one water molecule.

19. The crystalline composition according to any one of claims 17 or 18, further comprising a salt or zinc.

20. The crystalline composition according to any one of claims 17-19, further comprising an IL-13 polypeptide bound to the anti-IL-13 antibody or Fab fragment.

21. The crystalline composition of claim 20, further comprising an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

22. A crystalline complex, comprising:

an IL-13 polypeptide; and

an antibody,

wherein the antibody comprises an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

23. The crystalline complex of claim 22, wherein the crystalline complex has space group $P2_13$.

24. The crystalline complex according to any one of claims 22 or 23, wherein the crystalline complex has unit cell dimensions $a = b = c = 125.3$ Å and $\alpha = \beta = \gamma = 90°$.

25. The crystalline complex according to any one of claims 22-24, wherein the antibody is from a mammal.

26. The crystalline complex according to any one of claims 22-25, wherein the antibody is from a mouse.

27. The crystalline complex according to any one of claims 22-26, wherein the IL-13 polypeptide is from a mammal.

28. The crystalline complex according to any one of claims 22-27, wherein the IL-13 polypeptide is from a human.

29. The crystalline complex according to any one of claims 22-28, wherein the antibody comprises a polypeptide including the amino acid sequence of SEQ ID NO:1.

30. The crystalline complex according to any one of claims 22-29, wherein the antibody comprises a polypeptide including the amino acid sequence of SEQ ID NO:2.

31. The crystalline complex according to any one of claims 22-30, wherein the antibody is a monoclonal antibody.

32. The crystalline complex according to any one of claims 22-31, wherein the antibody is mAb13.2.

33. The crystalline complex according to any one of claims 22-32, wherein the antibody is an mAb13.2 Fab fragment.

34. The crystalline complex according to any one of claims 22-33, wherein the antibody is bound to a region of the IL-13 polypeptide that binds to an IL-4R polypeptide *in vivo*.

35. The crystalline complex according to any one of claims 22-34, wherein the IL-13 polypeptide comprises a region that binds to an IL-4R polypeptide.

36. The crystalline complex according to any one of claims 22-35, wherein the IL-13 polypeptide comprises the amino acid sequence of SEQ ID NO:4.

37. The crystalline complex according to any one of claims 22-36, wherein the antibody interacts with one or more of residues Ser7, Thr8, Ala9, Glu12, Leu48, Glu49, Ile52, Asn53, Arg65, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74, and Arg86 as defined by the amino acid sequence of SEQ ID NO:4.

38. The crystalline complex according to any one of claims 22-37, wherein the IL-13 polypeptide interacts with one or more of residues Asn31, Tyr32, Lys34, Arg54, Asn96, Asp98, and Trp100 as defined by the amino acid sequence of SEQ ID NO:1 and Ile30, Ser31, Ala33, Trp47, Ser50, Ser52, Ser53, Tyr58, Leu98, Asp99, Gly100, Tyr101, Tyr102, and Phe103 as defined by the amino acid sequence of SEQ ID NO:2.

39. The crystalline complex according to any one of claims 22-38, wherein the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

40. The crystalline complex according to any one of claims 22-39, wherein the crystalline complex comprises the structural coordinates of Table 11, +/- a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

41. The crystalline complex according to any one of claims 22-40, further comprising an IL-13Rα1 polypeptide.

42. A crystalline complex, comprising:
an IL-13Rα1 polypeptide; and
an IL-13 polypeptide.

43. The crystalline complex of claim 42, wherein the crystalline complex has space group I4.

44. The crystalline complex according to any one of claims 42 or 43, wherein the crystalline complex has unit cell dimensions a = b = 164.9 Å, c = 74.8 Å and $\alpha = \beta = \gamma = 90°$.

45. The crystalline complex according to any one of claims 42, 43, or 44, further comprising an antibody,

wherein the antibody comprises an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

46. The crystalline complex of claim 45, wherein the antibody is from a mammal.

47. The crystalline complex according to any one of claims 45 or 46, wherein the antibody is from a mouse.

48. The crystalline complex according to any one of claims 42-47, wherein the IL-13 polypeptide is from a mammal.

49. The crystalline complex according to any one of claims 42-48, wherein the IL-13 polypeptide is from a human.

50. The crystalline complex according to any one of claims 45 or 46, wherein the antibody is a monoclonal antibody.

51. The crystalline complex according to any one of claims 45 or 46, wherein the antibody is mAb13.2.

52. The crystalline complex according to any one of claims 45 or 46, wherein the antibody is an mAb13.2 Fab fragment.

53. The crystalline complex according to any one of claims 45 or 46, wherein the antibody is bound to a region of the IL-13 polypeptide that binds to an IL-4R polypeptide *in vivo*.

54. The crystalline complex according to any one of claims 42-53, wherein the IL-13 polypeptide comprises a region that binds to an IL-4R polypeptide.

55. The crystalline complex according to any one of claims 42-54, wherein the IL-13Rα1 polypeptide is from a mammal.

56. The crystalline complex according to any one of claims 42-55, wherein the IL-13Rα1 polypeptide is from a human

57. The crystalline complex according to any one of claims 42-56, wherein the IL-13 polypeptide comprises the amino acid sequence of SEQ ID NO:4.

58. The crystalline complex according to any one of claims 42-57, wherein the IL-13Rα1 polypeptide comprises the amino acid sequence of SEQ ID NO:12.

59. The crystalline complex according to any one of claims 44 or 46, wherein the antibody interacts with one or more of residues Ser7, Thr8, Ala9, Glu12, Leu48, Glu49, Ile52, Asn53, Arg65, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74, and Arg86 as defined by the amino acid sequence of SEQ ID NO:4.

60. The crystalline complex according to any one of claims 45 or 46, wherein the IL-13 polypeptide interacts with one or more of residues Asn31, Tyr32, Lys34, Arg54, Asn96, Asp98, and Trp100 as defined by the amino acid sequence of SEQ ID NO:1 and Ile30, Ser31, Ala33, Trp47, Ser50, Ser52, Ser53, Tyr58, Leu98, Asp99, Gly100, Tyr101, Tyr102, and Phe103 as defined by the amino acid sequence of SEQ ID NO:2.

61. The crystalline complex according to any one of claims 42-60, wherein the IL-13 polypeptide interacts with one or more of residues Ile254, Ser255, Arg256, Lys318, Cys320, Tyr321, Lys76, Lys77, Ile78, and Ala79 as defined by the amino acid sequence of SEQ ID NO:12.

62. The crystalline complex according to any one of claims 42-59, wherein the IL-13Rα1 polypeptide interacts with one or more of residues Arg11, Glu12, Leu13, Ile14, Glu15, Thr88, Lys89, Ile90, Glu91, Lys104, Lys105, Leu106, Phe107, and Arg108, as defined by the amino acid sequence of SEQ ID NO:4.

63. The crystalline complex according to any one of claims 42-62, wherein the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

64. The crystalline complex according to any one of claims 42-63, wherein the crystalline complex comprises the structural coordinates of Table 12, +/- a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

65. A method comprising:

using a three-dimensional model of an antibody to design an agent that interacts with an IL-13 polypeptide,

wherein the antibody comprises an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

66. The method of claim 65, wherein the three-dimensional model comprises a CDR of the antibody.

67. The method according to any one of claims 65 or 66, wherein the antibody is a Fab fragment of an anti-IL-13 antibody.

68. The method according to any one of claims 65-67, wherein the antibody comprises a light chain polypeptide including the amino acid sequence of SEQ ID NO:1, and a heavy chain polypeptide including the amino acid sequence of SEQ ID NO:2.

69. The method according to any one of claims 65-68, wherein the antibody is mAb13.2.

70. The method according to any one of claims 65-69, wherein the antibody is an mAb13.2 Fab fragment.

71. The method according to any one of claims 65-70, wherein the three-dimensional model comprises structural coordinates of atoms of the antibody.

72. The method of claim 71, wherein the structural coordinates are experimentally determined coordinates.

73. The method according to any one of claims 65-72, wherein the three-dimensional model comprises structural coordinates of an atom selected from the group consisting of atoms of amino acids Asn31, Tyr32, Lys34, Arg54, Asn96, Asp98, and Trp100 as defined by the amino acid sequence of SEQ ID NO:1, and Ile30, Ser31, Ala33, Trp47, Ser50, Ser52, Ser53, Tyr58, Leu98, Asp99, Gly100, Tyr101, Tyr102, and Phe103 as defined by the amino acid sequence of SEQ ID NO:2.

74. The method according to any one of claims 65-73, wherein the agent binds a region of the IL-13 polypeptide that binds an IL-4R polypeptide *in vivo*.

75. The method of claim 74, wherein the IL-4R polypeptide is an IL-4Rα polypeptide.

76. The method according to any one of claims 65-75, wherein the three-dimensional model comprises an IL-13 polypeptide bound to the antibody.

77. The method of claim 76, wherein the three-dimensional model further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

78. A method comprising:

using a three-dimensional model of an IL-13 polypeptide to design an agent that interacts with the IL-13 polypeptide.

79. The method of claim 78, wherein the three-dimensional model further comprises an antibody bound to the IL-13 polypeptide, the antibody comprising an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

80. The method of claim 79, wherein the three-dimensional model comprises structural coordinates of atoms of the antibody.

81. The method according to any one of claims 78-807, wherein the three-dimensional model comprises a region of the IL-13 polypeptide that binds to an IL-4R polypeptide *in vivo*.

82. The method according to any one of claims 78-81, wherein the agent inhibits binding of the IL-13 polypeptide to an IL-4R polypeptide.

83. The method according to any one of claims 75-79, wherein the three-dimensional model comprises structural coordinates of atoms of the IL-13 polypeptide.

84. The method of claim 83, wherein the structural coordinates are experimentally determined coordinates.

85. The method according to any one of claims 83 or 84, wherein the structural coordinates are according to Table 11 +/- a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

86. The method according to any one of claims 78-85, wherein the three-dimensional model comprises structural coordinates of an atom selected from the group consisting of atoms of amino acids Glu49, Asn53, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74, and Arg86 of the IL-13 polypeptide as defined by the amino acid sequence of SEQ ID NO:4.

87. The method according to any one of claims 78-86, wherein the three-dimensional model further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

88. The method of claim 87, wherein the three-dimensional model comprises structural coordinates of atoms of the IL-13Rα1 polypeptide.

89. A method comprising:

using a three-dimensional model of an IL-13 polypeptide bound to an IL-13Rα1 polypeptide to design an agent that interacts with the IL-13 polypeptide.

90. The method of claim 89, wherein the three-dimensional model further comprises an antibody bound to the IL-13 polypeptide, the antibody comprising an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

91. The method according to any one of claims 89 or 90, wherein the agent inhibits binding of the IL-13 polypeptide to an IL-4R polypeptide.

92. The method according to any one of claims 89-91, wherein the three-dimensional model comprises structural coordinates of atoms of the IL-13 polypeptide and the IL-13Rα1 polypeptide.

93. The method of claim 92, wherein the structural coordinates are experimentally determined coordinates.

94. The method according to any one of claims 92 or 93, wherein the structural coordinates are according to Table 12 +/- a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

95. A method, comprising:

selecting an agent by performing rational drug design with a three-dimensional structure of a crystalline complex that comprises an IL-13 polypeptide;

contacting the agent with an IL-13 polypeptide; and

detecting the ability of the agent to bind the IL-13 polypeptide.

96. The method of claim 95, wherein the crystalline complex of the three-dimensional structure further comprises an antibody bound to the IL-13 polypeptide, the antibody comprising an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

97. The method of claim 96, wherein the anti-IL-13 antibody or Fab fragment of an anti-IL-13 antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

98. The method according to any one of claims 95-97, wherein the agent is selected via computer modeling.

99. The method according to any one of claims 95-98, wherein the three-dimensional structure comprises structural coordinates of Table 11, ± a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

100. The method according to any one of claims 95-99, wherein the crystalline complex of the three-dimensional structure further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

101. The method according to any one of claims 95-100, wherein the three-dimensional structure comprises structural coordinates of Table 12, ± a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

102. The method according to any one of claims 95-101, further comprising obtaining the agent.

103. The method according to any one of claims 95-102, further comprising:

obtaining a supplemental crystalline complex comprising the IL-13 polypeptide and the agent;

determining the three-dimensional structure of the supplemental crystalline complex;

selecting a second agent by performing rational drug design with the three-dimensional structure of the supplemental crystalline complex;

contacting the second agent with the IL-13 polypeptide; and

detecting the ability of the second agent to bind the IL-13 polypeptide.

104. The method of claim 103, wherein the second agent is selected via computer modeling.

105. The method according to any one of claims 103 or 104, further comprising detecting an ability of the second agent to inhibit IL-13 activity.

106. A method, comprising:

contacting an IL-13 polypeptide with an antibody to form a composition; and

crystallizing the composition to form a crystalline complex in which the antibody is bound to the IL-13 polypeptide,

wherein the antibody comprises an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody, and the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

107. The method of claim 106, wherein the method includes using vapor diffusion.

108. The method according to any one of claims 106 or 107, wherein the antibody is mAb13.2.

109. The method according to any one of claims 106-108, wherein the antibody is a mAb13.2 Fab fragment.

110. A method, comprising:

contacting an IL-13 polypeptide with an antibody and an IL-13Rα1 polypeptide to form a composition; and

crystallizing the composition to form a crystalline complex in which the antibody and the IL-13Rα1 polypeptide are each bound to the IL-13 polypeptide,

wherein the antibody comprises an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody, and the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

111.The method of claim 110, wherein the method includes using vapor diffusion.

112. The method according to any one of claims 110-111, wherein the antibody is mAb13.2.

113. The method according to any one of claims 110-112, wherein the antibody is an mAb13.2 Fab fragment.

114. A software system, comprising instructions for causing a computer system to:

accept information relating to a structure of an IL-13 polypeptide bound to an antibody, the antibody comprising an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody;

accept information relating to a candidate agent; and

determine binding characteristics of the candidate agent to the IL-13 polypeptide,

wherein the determination is based on the information relating to the structure of the IL-13 polypeptide and the information relating to the candidate agent.

115. The software system of claim 114, wherein the structure of the IL-13 polypeptide bound to the antibody is a crystal structure.

116. The software system of claim 115, wherein the crystal structure comprises the structural coordinates of Table 11, ± a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

117. The software system according to any one of claims 106-108, wherein the structure of the IL-13 polypeptide bound to the antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

118. The software system of claim 117, wherein the structure of the IL-13 polypeptide bound to the antibody and the IL-13Rα1 polypeptide bound to the IL-13 polypeptide is a crystal structure.

119. The software system of claim 118, wherein the crystal structure comprises the structural coordinates of Table 12, ± a root mean square deviation for alpha carbon atoms of not more than 1.5 Å.

120. The software system according to any one of claims 114-119, further comprising instructions for causing the computer system to:

apply information from a database, the information relating to candidate agents; and

identify a candidate agent in the database that can bind the IL-13 polypeptide, wherein the identification is based on the information relating to the structure of the IL-13 polypeptide and information relating to the candidate agent.

121. The software system according to any one of claims 114-120, further comprising instructions for causing the computer system to model the binding characteristics of the candidate agent with the IL-13 polypeptide.

122. A computer program residing on a computer readable medium having a plurality of instructions stored thereon, which, when executed by one or more processors, cause the one or more processors to:

accept information relating to a structure of an IL-13 polypeptide bound to an antibody, the antibody comprising an anti-IL-13 polypeptide or a Fab fragment of an anti-IL-13 antibody;

accept information relating to a candidate agent; and

determine binding characteristics of the candidate agent to the IL-13 polypeptide,

wherein the determination is based on the information relating to the structure of the IL-13 polypeptide and the information relating to the candidate agent.

123. The computer program of claim 122, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

124. A method, comprising:

accepting information relating to the structure of an IL-13 polypeptide bound to an antibody, the antibody comprising an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody; and

modeling the binding characteristics of the IL-13 polypeptide with a candidate agent,

wherein the method is implemented by a software system.

125. The method of claim 124, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

126. The method according to any one of claims 124 or 125, further comprising applying information from a database of candidate agents to identify a candidate agent that can bind the IL-13 polypeptide,

wherein the identification is based on the information relating to the structure of the IL-13 polypeptide and information relating to the candidate agent.

127. A computer program residing on a computer readable medium having a plurality of instructions stored thereon, which, when executed by one or more processors, cause the one or more processors to:

accept information relating to the structure of an IL-13 polypeptide bound to an antibody, the antibody comprising an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody; and

model the binding characteristics of the IL-13 polypeptide with a candidate agent.

128. The computer program of claim 127, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

129. The computer program according to any one of claims 127 or 128, further comprising instructions which cause the one or more processors to:

apply information from a database, the information relating to candidate agents; and

identify a candidate agent in the database that can bind the IL-13 polypeptide,

wherein the identification is based on the information relating to the structure of the IL-13 polypeptide.

130. The computer program according to any one of claims 127-129, further comprising instructions which cause the one or more processors to model the binding characteristics of the candidate agent with the IL-13 polypeptide.

131. A software system, comprising instructions for causing a computer system to:

accept information relating to the structure of an IL-13 polypeptide bound to an antibody, the antibody comprising an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody; and

model the binding characteristics of the IL-13 polypeptide with a candidate agent.

132. The method of claim 131, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

133. A crystalline antibody, wherein the antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

134. A crystalline composition that comprises an antibody, wherein the antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

135. A crystalline complex, comprising:

an IL-13 polypeptide; and

an antibody,

wherein the antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

136. A crystalline complex, comprising:

an IL-13 polypeptide;

an IL-13Rα1 polypeptide; and

an antibody,

wherein the antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

137. A method, comprising:

using a three-dimensional model of an antibody to design an agent that interacts with an IL-13 polypeptide,

wherein the antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

138. The method of claim 137, wherein the three-dimensional model comprises structural coordinates of atoms of the antibody.

139. A method, comprising:

contacting an IL-13 polypeptide with an antibody to form a composition; and

crystallizing the composition to form a crystalline complex in which the antibody is bound to the IL-13 polypeptide,

wherein the antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*, and the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

140. A method, comprising:

contacting an IL-13 polypeptide with an antibody and an IL-13Rα1 polypeptide to form a composition; and

crystallizing the composition to form a crystalline complex in which the antibody and the IL-13Rα1 polypeptide are each bound to the IL-13 polypeptide,

wherein the antibody is capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*, and the crystalline complex can diffract X-rays to a resolution of at least about 3.5 Å.

141. A software system, comprising instructions for causing a computer system to:

accept information relating to a structure of an IL-13 polypeptide bound to an antibody, the antibody being capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*;

accept information relating to a candidate agent; and

determine binding characteristics of the candidate agent to the IL-13 polypeptide,

wherein the determination is based on the information relating to the structure of the IL-13 polypeptide and the information relating to the candidate agent.

142. The software system of claim 141, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

143. A computer program residing on a computer readable medium having a plurality of instructions stored thereon, which, when executed by one or more processors, cause the one or more processors to:

accept information relating to a structure of an IL-13 polypeptide bound to an antibody, the antibody being capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*;

accept information relating to a candidate agent; and

determine binding characteristics of the candidate agent to the IL-13 polypeptide,

wherein the determination is based on the information relating to the structure of the IL-13 polypeptide and the information relating to the candidate agent.

144. The computer program of claim 143, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

145. A method, comprising:

accepting information relating to the structure of an IL-13 polypeptide bound to a an antibody, the antibody being capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*; and

modeling the binding characteristics of the IL-13 polypeptide with a candidate agent,

wherein the method is implemented by a software system.

146. The method of claim 145, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

147. A computer program residing on a computer readable medium having a plurality of instructions stored thereon, which, when executed by one or more processors, cause the one or more processors to:

accept information relating to the structure of an IL-13 polypeptide bound to an antibody, the antibody being capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*; and

model the binding characteristics of the IL-13 polypeptide with a candidate agent.

148. The computer program of claim 147, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

149. A software system, comprising instructions for causing a computer system to:

accept information relating to the structure of an IL-13 polypeptide bound to an antibody, the antibody being capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*; and

model the binding characteristics of the IL-13 polypeptide with a candidate agent.

150. The software system of claim 149, wherein the structure of the IL-13 polypeptide bound to an antibody further comprises an IL-13Rα1 polypeptide bound to the IL-13 polypeptide.

151. A method of modulating IL-13 activity in a subject, comprising:

using rational drug design to select an agent that is capable of modulating IL-13 activity; and

administering a therapeutically effective amount of the agent to the subject.

152. The method of claim 151, wherein the rational drug design includes using a three-dimensional structure of a crystalline complex that comprises an IL-13 polypeptide.

153. The method of claim 152, wherein the crystalline complex further comprises an antibody, the antibody being an anti-IL-13 antibody or a Fab fragment of an anti-IL-13 antibody.

154. The method according to any one of claims 152 or 153, wherein the crystalline complex further comprises an antibody, the antibody being capable of binding a site of an IL-13 polypeptide to which an IL-4R polypeptide binds *in vivo*.

155. The method according to any one of claims 152-154, wherein the crystalline complex further comprises an IL-13Rα1 polypeptide.

156. A method of treating a subject having a condition associated with IL-13 activity, comprising:

using rational drug design to select an agent that is capable of effecting IL-13 activity; and

administering a therapeutically effective amount of the agent to a subject in need thereof.

157. The method of claim 156, wherein the condition is asthma.

158. The method according to any one of claims 156 or 157, wherein the condition is allergic asthma or nonallergic asthma.

159. The method of claim 156, wherein the condition comprises at least one condition selected from the group consisting of cancer, airway inflammation, eosinophilia, fibrosis, excess mucus production, an inflammatory condition of the skin,

gastrointestinal organs, blood vessels or connective tissue, and an autoimmune condition of the skin, gastrointestinal organs, blood vessels, or connective tissue.

160. The method of claim 156, wherein the condition comprises at least one condition selected from the group consisting of chronic obstructive pulmonary disorder, cystic fibrosis, pulmonary fibrosis, allergic rhinitis, atopic dermatitis, inflammatory bowel disease, Crohn's disease, cirrhosis, scleroderma, or Hodgkin's lymphoma.

161. A method of prophylactically treating a subject susceptible to a condition associated with IL-13 activity, comprising:

determining that the subject is susceptible to the condition associated with IL-13 activity;

using rational drug design to select an agent that is capable of effecting IL-13 activity; and

administering a therapeutically effective amount of the agent to the subject.

162. The method of claim 161, wherein the condition is asthma.

163. The method according to any one of claims 161 or 162, wherein the condition is allergic asthma or nonallergic asthma.

164. The method of claim 161, wherein the condition comprises at least one condition selected from the group consisting of cancer, airway inflammation, eosinophilia, fibrosis, excess mucus production, an inflammatory condition of the skin, gastrointestinal organs, blood vessels or connective tissue, and an autoimmune condition of the skin, gastrointestinal organs, blood vessels, or connective tissue.

165. The method of claim 161, wherein the condition comprises at least one condition selected from the group consisting of chronic obstructive pulmonary disorder, cystic fibrosis, pulmonary fibrosis, allergic rhinitis, atopic dermatitis, inflammatory bowel disease, Crohn's disease, cirrhosis, scleroderma, or Hodgkin's lymphoma.

166. The method according to any one of claims 161-165, wherein the agent binds to the IL-13 polypeptide by interacting to within about 2.0Å with one or more of amino acids Glu49, Asn53, Gly69, Pro72, His73, Lys74, and Arg86, as defined by the amino acid sequence of SEQ ID NO:4.

167. Use of an agent designed or selected according to any one of claims 64-97 or 129 or 130 in the manufacture of a medicament for the prophylaxis or treatment of a condition associated with IL-13 activity.

168. The use according to claim 167, wherein the agent is capable of inhibiting IL-13 activity.

169. The use according to any one of claims 167 or 168, wherein the agent is capable of inhibiting IL-13 activity *in vivo*.

170. The use according to any one of claims 167, 168, or 169, wherein the condition is asthma.

171. The use according to any one of claims 167-170, wherein the condition is allergic asthma or non-allergic asthma.

172. The use according to any one of claims 167-170, wherein the condition comprises at least one condition selected from the group consisting of cancer, airway inflammation, eosinophilia, fibrosis, excess mucus production, an inflammatory condition of the skin, gastrointestinal organs, blood vessels or connective tissue, and an autoimmune condition of the skin, gastrointestinal organs, blood vessels, or connective tissue.

173. The use according to any one of claims 167-170, wherein the condition comprises at least one condition selected from the group consisting of chronic obstructive

pulmonary disorder, cystic fibrosis, pulmonary fibrosis, allergic rhinitis, atopic dermatitis, inflammatory bowel disease, Crohn's disease, cirrhosis, scleroderma, or Hodgkin's lymphoma.

174. The use according to any one of claims 167-173, wherein the agent binds to the IL-13 polypeptide by interacting to within about 2.0Å with one or more of amino acids Glu49, Asn53, Gly69, Pro72, His73, Lys74, and Arg86, as defined by the amino acid sequence of SEQ ID NO:4.

175. An agent designed or selected according to any one of claims 65-105 or 129 or 130 for use in the prophylaxis or treatment of a condition associated with IL-13 activity.

176. The agent of claim 175, wherein the agent is capable of inhibiting IL-13 activity.

177. The agent according to any one of claims 175 or 176, wherein the agent is capable of inhibiting IL-13 activity in vivo.

178. The agent according to any one of claims 175, 176, or 177, wherein the condition is asthma.

179. The agent according to any one of claims 175-178, wherein the condition is allergic asthma or nonallergic asthma.

180. The agent according to any one of claims 175-177, wherein the condition comprises at least one condition selected from the group consisting of cancer, airway inflammation, eosinophilia, fibrosis, excess mucus production, an inflammatory condition of the skin, gastrointestinal organs, blood vessels or connective tissue, and an autoimmune condition of the skin, gastrointestinal organs, blood vessels, or connective tissue.

181. The agent according to any one of claims 175-177, wherein the condition comprises at least one condition selected from the group consisting of chronic obstructive pulmonary disorder, cystic fibrosis, pulmonary fibrosis, allergic rhinitis, atopic dermatitis, inflammatory bowel disease, Crohn's disease, cirrhosis, scleroderma, or Hodgkin's lymphoma.

182. The agent according to any one of claims 175-181, wherein the agent binds to the IL-13 polypeptide by interacting to within about 2.0Å with one or more of amino acids Glu49, Asn53, Gly69, Pro72, His73, Lys74, and Arg86, as defined by the amino acid sequence of SEQ ID NO:4.

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ABSTRACT

Anti-IL-13 antibodies, crystals of anti-IL-13 antibodies, IL-13 polypeptide/anti-IL-13 antibody complexes, crystals of IL-13 polypeptide/anti-IL-13 antibody complexes, IL-13Rα1 polypeptide/IL-13 polypeptide/anti-IL-13 antibody complexes, crystals of IL-13Rα1 polypeptide/IL-13 polypeptide/anti-IL-13 antibody complexes, and related methods and software systems are disclosed.

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35 40 45
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Glu Thr Arg Arg Ser Ile Glu Val Pro Leu Asn Glu Arg Ile Cys Leu
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Tyr Tyr Trp His Arg Ser Leu Glu Lys Ile His Gln Cys Glu Asn Ile
                165                 170                 175
Phe Arg Glu Gly Gln Tyr Phe Gly Cys Ser Phe Asp Leu Thr Lys Val
            180                 185                 190
Lys Asp Ser Ser Phe Glu Gln His Ser Val Gln Ile Met Val Lys Asp
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Asn Ala Gly Lys Ile Lys Pro Ser Phe Asn Ile Val Pro Leu Thr Ser
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Arg Val Lys Pro Asp Pro Pro His Ile Lys Asn Leu Ser Phe His Asn
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12) SOLICITUD INTERNACIONAL PUBLICADA BAJO EL TRATADO DE COOPERACIÓN EN MATERIA DE PATENTES (PCT)

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(19) Organización Mundial De La Propiedad Intelectual
Oficina Internacional

(43) Fecha de publicación internacional:
22 Diciembre 2005 (22.12.2005)

(10) Número de Publicación Internacional:
PCT WO 2005/121177 A2

(51) Clasificación[7] de patente internacional: C07K 16/00,

(21) Número de solicitud internacional: PCT/US2005/020334

(22) Fecha de presentación internacional: 9 Junio 2005 (09.06.2005)

(25) Idioma de Presentación: Inglés

(26) Idioma de Publicación: Inglés

(30) Datos de prioridad:

60/578,736	9 Junio 2004 (09.06.2004)	US
60/578,473	9 Junio 2004 (09.06.2004)	US
60/581,375	22 Junio 2004 (22.06.2004)	US

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(81) Estados designados: *(a menos que se indique lo contrario, para cada tipo de protección nacional disponible):* AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Estados designados: *(a menos que se indique lo contrario, para cada tipo de protección regional disponible):* Patente ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZW), Patente Euroasiática (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), Patente Europea (AT, BE, BG, CH, CY, CZ, DE DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), Patente OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Publicada

sin el reporte de búsqueda internacional y para volverse a publicar en caso de recibir el reporte

Para códigos de dos letras y otras abreviaturas refiérase a las "Notas de Guía en Códigos y Abreviaturas" que aparece al comienzo de cada publicación regular de la Gaceta del PCT.

(54) Título: ANTICUERPOS ANTI-IL-13 Y COMPLEJOS



(57) Resumen: Se describen anticuerpos anti-IL-13, cristales de anticuerpos anti-IL-13, complejos polipéptido IL-13/anticuerpo anti-IL-13, cristales de complejos polipéptido IL-13/anticuerpo anti-IL-13, complejos polipéptido IL-13Rα1/polipéptido IL-13/anticuerpo anti-IL-13, cristales de complejos polipéptido IL-13Rα1/polipéptido IL-13/anticuerpo anti-IL-13, y métodos y sistemas de software relacionados.

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ANTICUERPOS ANTI-IL-13 Y COMPLEJOS

Campo de la Invención

La invención se refiere a anticuerpos anti-IL-13, a cristales de anticuerpos anti-IL-13, a complejos polipéptido IL-13/anticuerpo anti-IL-13, a cristales de complejos polipéptido IL-13/anticuerpo anti-IL-13, a complejos polipéptido IL-13Rα1/polipéptido IL-13/anticuerpo anti-IL-13, a cristales de complejo polipéptido IL-13Rα1/polipéptido IL-13/anticuerpo anti-IL-13, y a métodos y software relacionados.

Antecedentes de la invención

La interleucina-13 (IL-13) es una citocina pleiotrópica implicada en condiciones de respuesta inmune, tales como atopia, asma, alergia y respuesta inflamatoria. El papel de IL-13 en la respuesta inmunológica es facilitado por su efecto en las vías de señalización celular. Por ejemplo, IL-13 puede promover la proliferación de células B, inducir a que las células B produzcan IgE y subregular la producción de citocinas proinflamatorias. IL-13 también puede incrementar la expresión de VCAM-1 en células endoteliales, e incrementar la expresión de antígenos MHC clase II en varias moléculas de adhesión en monocitos.

La función de IL-13 es mediada a través de una

interacción con su receptor en células hematopoyéticas y otros tipos de células. El receptor de IL-13 humano (IL-13R) es un heterodímero que incluye la cadena α del receptor de interleucina-4, IL-4Rα, y la cadena de unión de IL-13, IL-13Rα1. La asociación de IL-13 con su receptor induce la activación de STAT6 (transductor de señal y activación de transcripción 6) y JAK1 (cinasa de la familia Janus) a través de una interacción de unión con la cadena IL-4Rα. IL-13Rα2, el cual se puede encontrar sobre la superficie celular o en forma soluble en la circulación, se une a IL-13 con alta afinidad pero no media otras respuestas celulares a IL-13. Se cree que funciona como un receptor señuelo.

Breve descripción de la invención

En un aspecto, la invención incorpora un anticuerpo cristalino. El anticuerpo cristalino es un anticuerpo anti-IL-13, o un fragmento Fab del anticuerpo anti-IL-13.

En otro aspecto, la invención incorpora una composición cristalina que incluye un anticuerpo. El anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

En un aspecto más, la invención incorpora un complejo cristalino que incluye un polipéptido IL-13 y un anticuerpo. El anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

En otro aspecto, la invención incorpora un complejo cristalino que incluye un polipéptido IL-13Rα1 y un polipéptido IL-13.

En otro aspecto más, la invención incorpora un método que incluye usar un modelo tridimensional de un anticuerpo para diseñar un agente que interactúe con un polipéptido IL-13. El anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

En otro aspecto, la invención incorpora un método que incluye usar un modelo tridimensional de un polipéptido IL-13 para diseñar un agente que interactúe con el polipéptido IL-13.

En otro aspecto, la invención incorpora un método que incluye usar un modelo tridimensional de un polipéptido IL-13 unido a un polipéptido IL-13Rα1 para diseñar un agente que interactúe con el polipéptido IL-13.

En otro aspecto, la invención incorpora un método que incluye seleccionar un agente al llevar a cabo diseño racional de fármacos con una estructura tridimensional de un complejo cristalino que incluye un polipéptido IL-13; poner en contacto el agente con un polipéptido IL-13 y detectar la capacidad del agente para unirse al polipéptido IL-13.

En un aspecto más, la invención incorpora un método que incluye poner en contacto un polipéptido IL-13 con un anticuerpo para formar una composición y cristalizar la

composición para formar un complejo cristalino en el cual el anticuerpo se una al polipéptido IL-13. El anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

En otro aspecto, la invención incorpora un método que incluye poner en contacto un polipéptido IL-13 con un anticuerpo y un polipéptido IL-13Rα1 para formar una composición, y cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo y el polipéptido IL-13Rα1 se unan cada uno al polipéptido IL-13. El anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

En otro aspecto, la invención incorpora un sistema de software que incluye instrucciones para hacer que un sistema de computadora acepte información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo incluye un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13. Las instrucciones también causan que un sistema de computadora acepte información que se refiera a un agente candidato y determine características de unión del agente candidato del polipéptido IL-13. La determinación de las características de unión se basa en la

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información que se refiere a la estructura del polipéptido IL-13 y la información que se refiere al agente candidato.

En otro aspecto, la invención incorpora un programa de computadora que reside en un medio legible por computadora. Una pluralidad de instrucciones se almacenan en el medio legible por computadora. Cuando las instrucciones son ejecutadas por uno o más procesadores, el uno o más procesadores aceptarán información que se refiere a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo un polipéptido anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13; aceptar información que se refiere a un agente candidato y determinar las características de unión del agente candidato al polipéptido IL-13. La determinación de las características de unión se basa en la información que se refiere a la estructura del polipéptido IL-13 y la información que se refiere al agente candidato.

En otro aspecto, la invención incorpora un método que incluye aceptar información que se refiere a la estructura de un polipéptido IL-13 unido a un anticuerpo y modelar las características de unión del polipéptido IL-13 con un agente candidato. El anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13. El método de aceptar información y modelar las características de unión se implementa por un sistema de

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software.

En otro aspecto, la invención incorpora un programa de computadora que reside en un medio legible por computadora que contiene una pluralidad de instrucciones. Cuando las instrucciones son ejecutadas por uno o más procesadores, el uno o más procesadores aceptarán información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo IL-13 y modelarán las características de unión del polipéptido IL-13 con un agente candidato.

En otro aspecto, la invención incorpora un sistema de software que incluye instrucciones para causar que un sistema de computadora acepte información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo y modelar las características de unión del polipéptido IL-13 con un agente candidato. El anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

En otro aspecto, la invención incorpora un anticuerpo cristalino. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se una un polipéptido IL-14 *in vivo*.

En un aspecto más, la invención incorpora una composición cristalina que incluye un anticuerpo capaz de unirse a un sitio de un polipéptido IL-13 al cual se una un polipéptido IL-4R *in vivo*.

En otro aspecto, la invención incorpora un complejo cristalino que incluye un polipéptido IL-13 y un anticuerpo. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se una un polipéptido IL-4R *in vivo*.

En otro aspecto más, la invención incorpora un complejo cristalino que incluye un polipéptido IL-13, un polipéptido IL-13Ra1 y un anticuerpo. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se una *in vivo* un polipéptido IL-4R.

En otro aspecto, la invención incorpora un método que incluye usar un modelo tridimensional de un anticuerpo para diseñar un agente que interactúe con un polipéptido IL-13. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se una un polipéptido IL-4R *in vivo*.

En otro aspecto, la invención incorpora un método que incluye poner en contacto un polipéptido IL-13 con un anticuerpo para formar una composición y cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo se una al polipéptido IL-13. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se una *in vivo* un polipéptido IL-4R, y el complejo cristalino puede difractar rayos X hasta una resolución de por lo menos aproximadamente 3.5 Å.

En otro aspecto más, la invención incorpora un

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método que incluye poner en contacto un polipéptido IL-13 con un anticuerpo y un polipéptido IL-13Rα1 para formar una composición, y cristalizar la composición para formar un complejo cristalino en el cual el polipéptido y el anticuerpo IL-13Rα1 se unan cada uno al polipéptido IL-13. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

En otro aspecto, la invención incorpora un sistema de software que incluye instrucciones para hacer que un sistema de computadora acepte información que se refiere a una estructura de un polipéptido IL-13 unido a un anticuerpo, aceptar información que se refiere a un agente candidato y determinar las características de unión del agente candidato al polipéptido IL-13. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R. La determinación de las características de unión del agente candidato se basa en la información que se refiere a la estructura del polipéptido IL-13 y la información que se refiere al agente candidato.

En otro aspecto, la invención incorpora un programa de computadora que reside en un medio legible por computadora que contiene una pluralidad de instrucciones. Cuando las instrucciones son ejecutadas por uno o más procesadores, el

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uno o más procesadores aceptará la información que se refiere a una estructura de un polipéptido IL-13 unido a un anticuerpo, aceptará la información que se refiere a un agente candidato y determinará las características de unión del agente candidato al polipéptido IL-13. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R. La determinación de las características de unión del agente candidato se basa en la información que se refiere a la estructura del polipéptido IL-13 y la información que se refiere al agente candidato.

En otro aspecto, la invención incorpora un método que incluye aceptar información que se refiere a la estructura de un polipéptido IL-13 unido a un anticuerpo y modelar las características de unión del polipéptido IL-13 con un agente candidato. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se una *in vivo* un polipéptido IL-4R. El método de aceptar información y modelar las características de unión es implementado por un sistema de software.

En otro aspecto, la invención incorpora un programa de computadora que reside en un medio legible por computadora que contiene una pluralidad de instrucciones. Cuando las instrucciones son ejecutadas por uno o más procesadores, el uno o más procesadores aceptarán información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo y

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modelarán las características de unión del polipéptido IL-13 con un agente candidato. El anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

En otro aspecto, la invención incorpora un sistema de software que incluye instrucciones para hacer que un sistema de computadora acepte información que se refiere a la estructura de un polipéptido IL-13 unido a un anticuerpo y modele las características de unión del polipéptido IL-13 con un agente candidato. El anticuerpo es capaz de unirse a un sitio de un anticuerpo IL-13 al cual se una *in vivo* un polipéptido IL-4R.

En otro aspecto, la invención incorpora un método para modular la actividad de IL-13 en un sujeto. El método incluye usar diseño racional de fármacos para seleccionar un agente que sea capaz de modular la actividad de IL-13, y administrar una cantidad terapéuticamente efectiva del agente al sujeto.

En un aspecto más, la invención incorpora un método para tratar un sujeto que tenga una condición asociada con actividad IL-13. El método incluye usar diseño racional de fármacos para seleccionar un agente que sea capaz de llevar a cabo la actividad IL-13, y administrar una cantidad terapéuticamente efectiva del agente al sujeto.

En otro aspecto, la invención incorpora un método

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para tratar profilácticamente un sujeto susceptible a una condición asociada con actividad IL-13. El método incluye determinar que el sujeto sea susceptible a la condición asociada con la actividad IL-13, usar un diseño racional de fármacos para seleccionar un agente que sea capaz de llevar a cabo la actividad IL-13 y administrar una cantidad terapéuticamente efectiva del agente al sujeto.

La información estructural de un polipéptido o un ligando correspondiente puede llevar a un mayor entendimiento de cómo funciona *in vivo* el polipéptido. Por ejemplo, el conocimiento de la estructura de una proteína o un ligando correspondiente puede revelar propiedades que faciliten la interacción de la proteína con sus ligandos, incluyendo otras proteínas, anticuerpos, moléculas efectoras (por ejemplo hormonas), y ácidos nucleicos. La modelación a base de estructura se puede usar para identificar ligandos capaces de interactuar con un polipéptido IL-13, eliminando así la necesidad de análisis y ensayos de tamizado, los cuales pueden ser costosos y consumidores de tiempo. la información estructural también se puede usar para dirigir la modificación de un ligando conocido que se cepa interactúa con IL-13 para generar un ligando alternativo con propiedades más deseables, tales como una unión más estrecha o mayor especificidad.

El estudio de la interacción entre un anticuerpo

anti-IL-13 y un polipéptido IL-13 y entre un polipéptido IL-13 y su receptor puede facilitar el diseño o selección de ligandos (por ejemplo, fármacos) para modular la actividad de IL-13 *in vivo*. Estos estudios pueden ser por lo tanto útiles para diseñar agentes terapéuticos. Los ensayos de actividad indicaron que mAb 13.2 bloqueó la función de IL-13 *in vivo* e *in vitro* (véanse ejemplos 1 y 2 abajo), incluyendo el uso de un anticuerpo para identificar agentes de unión a IL-13 capaces de alterar la función normal de la proteína. En consecuencia, se cree que las estructuras cristalinas del fragmento mAb13.2Fab, el complejo IL-13 humano/fragmento mAb13.2 Fab y el complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab (véanse tablas 10-12 abajo) puede ser útil para diseñar o identificar agentes que interactúen con IL-13 y el polipéptido receptor IL-13, IL-13α1. Estos agentes pueden ser útiles para modular la actividad de IL-13 en condiciones de respuesta inmune, tales como, por ejemplo, asma (por ejemplo, asma no alérgica o asma alérgica, la cual es algunas veces conocida como enfermedad alérgica crónica de la vía aérea), enfermedad pulmonar obstructiva crónica (EPOC), inflamación de la vía aérea, eosinofilia, fibrosis y producción excesiva de moco (por ejemplo, fibrosis cística, fibrosis pulmonar y rinitis alérgica), condiciones inflamatorias y/o autoinmunes de la piel (por ejemplo, dermatitis atópica), condiciones

inflamatorias y/o autoinmunes de los órganos gastrointestinales (por ejemplo, enfermedad inflamatoria del intestino (IBD) y/o enfermedad de Crohn), hepática (por ejemplo, cirrosis), condiciones inflamatorias y/o autoinmunes de los vasos sanguíneos o tejido conectivo (por ejemplo, escleroderma) y tumores o cánceres (por ejemplo, tumores de tejido blando o sólido), tales como linfoma de Hodgkin, glioblastoma y linfoma.

Otras características y ventajas de la invención serán aparentes a partir de las figuras y descripción anexos, y de las reivindicaciones. Los contenidos de todas las referencias, solicitudes de patente pendientes y patentes publicadas citadas a lo largo de esta solicitud se incorporan expresamente en la presente a manera de referencia. En caso de conflicto, la presente solicitud, incluyendo las definiciones, serán de utilidad.

Breve Descripción de las figuras

La figura 1A es la secuencia de aminoácidos de la cadena ligera del fragmento mAb13.2 Fab (unión de fragmento-antígeno) (SEQ ID NO:1).

La figura 1B es la secuencia de aminoácidos de la cadena pesada del fragmento mAb13.2 Fab (SEQ ID NO:2).

La figura 2A es la secuencia de aminoácidos de IL-13 humano de longitud completa (No. de Registro en Swiss-Prot

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P35225) (SEQ ID NO:3). El sitio de corte de péptido de señal se indica por un guión. Las hélices alfa A, B, C y D están subrayadas. La hélice A es definida por los aminoácidos 25-42; la hélice B es definida por los aminoácidos 62-71; la hélice C es definida por los aminoácidos 78-89 y la hélice D es definida por los aminoácidos 112-127.

La figura 2B es la secuencia de aminoácidos de IL-13 humano (SEQ ID NO:4) luego del corte de péptido de señal. Las hélices alfa A, B, C y D están subrayadas. La hélice A se define por los aminoácidos 6-23; la hélice B se define por los aminoácidos 43-52; la hélice C se define por los aminoácidos 59-70; la hélice D se define por los aminoácidos 93-108.

La figura 3 es un diagrama de cinta que ilustra la estructura cristalina del fragmento mAb13.2 Fab (izquierda) con la forma procesada de IL-13 humano (derecha) (véase figura 2B). La cadena ligera del fragmento mAb13.2 Fab se muestra con sombra oscura y la cadena pesada con sombra clara. Las hélices A, B, C y D de la estructura de IL-13 están indicadas.

La figura 4 es una gráfica que ilustra los parámetros cinéticos de 13 anticuerpos anti-IL-13 diferentes (mAb13.2, mAb13.4 y mAb13.9) que se unen a IL-13 humano como se determina por los análisis Biacore. Las constantes cinéticas de mAb13.2 también se muestran.

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La figura 5 es una gráfica que ilustra la unión de mAb13.2 biotinilado a IL-13 humano recombinante inactivo. Placas de ELISA fueron recubiertas con un anticuerpo anti-FLAG M2. La unión de FLAG-IL-13 humano se detectó con mAb13.2 biotinilado y estreptavidina-peroxidasa. Esta unión pudo competirse con IL-13 humano nativo aislado de células mononucleares de sangre de cordón Th2-inclinadas y activadas por mitógeno (triángulos) e IL-13 humano recombinante (diamantes). No hubo unión detectable de IL-13 de murino recombinante (círculos) a mAb13.2.

La figura 6 es una gráfica que ilustra el efecto de mAb13.2 y el inhibidor conocido rhuIL-13Rα2 en la bioactividad de IL-13 humano. "cpm" Es la medida de ^{3}H-timidina tomada en células TF1 cultivadas en presencia de IL-13 y concentraciones variables de mAb13.2 o rhuIL-13Rα2 (eje x).

La figura 7A es una gráfica que ilustra el efecto de IL-13 e IL-4 humano recombinante en la expresión de CD23 en monocitos CD11b+. Los monocitos fueron células mononucleares de sangre periférica (PBMCs) cosechadas de un donador saludable. Las células fueron tratadas durante la noche con 1 ng/mL de IL-13 o IL-4 humana recombinante, luego ensayadas para la expresión de CD23 mediante citometría de flujo.

La figura 7B es una gráfica que ilustra el efecto

de mAb13.2 en la expresión de CD23 inducida por IL-13 en monocitos CD11b+.

La figura 7C es una gráfica que ilustra el efecto de mAb13.2 en la expresión de CD23 inducida por IL-4 en monocitos CD11b+.

La figura 8 es una gráfica que ilustra el efecto de mAb13.2 en la producción de IgE dependiente de IL-13 por células B humanas. PBMC de un donador saludable se estimularon con PHA e IL-13. Después de 3 semanas, cada pocillo se ensayó para concentraciones de IgE mediante ELISA. PHA+IL-13 incrementaron la frecuencia de clones de células B productores de IgE. Este efecto fue inhibido por mAb13.2, pero no por un anticuerpo no neutralizador específico de IL-13 (mAb13.8) o por IgG de ratón de control (msIgG).

La figura 9A es un Western blot que detecta la proteína STAT6 fosforilada de células epiteliales humanas HT-29 tratadas con la concentración indicada de IL-13 durante 30 minutos a 37°C.

La figura 9B es un histograma de experimentos de citometría que midieron el nivel de proteína STAT6 fosforilada celular después de tratamiento con IL-13. El desplazamiento en la intensidad de tinción de fosfo-STAT6 después del tratamiento con IL-13 es indicado por el trazo de sombra ligeramente clara.

La figura 9C es un panel de histogramas de

experimentos de citometría de flujo que midieron el nivel de proteína STAT6 fosforilada celular después del tratamiento con una concentración sub-óptima de IL-13 humano y el anticuerpo indicado. Las células tratadas con IL-13 y anticuerpos se indican por el trazo negro. Los histogramas sombreados indican células no tratadas. Además de mAb13.2, un anticuerpo no neutralizador específico de IL-13 (mAb13.8) y una IgG1 de ratón de control también fueron probados.

La figura 10 es una gráfica que demuestra el porcentaje de eosinófilos detectados en BAL de monos Cinomolgos sensibilizados a *Ascaris suum* después del ataque segmentado de pulmón con antígeno de *Ascaris*. Veinticuatro horas antes del ataque, a los animales se les había administrado mAb13.2 intravenosamente (diamantes) o se habían dejado sin tratar (círculos). Los triángulos representan tratados con mAb13.2 y vueltos a atacar con *Ascaris* tres meses después de la administración del anticuerpo. Los eosinófilos fueron detectados mediante citometría de flujo usando análisis de dispensador lateral despolarizado.

La figura 11A es una gráfica que muestra que mAb13.2 no marcado (diamantes) o fragmentos mAb13.2 Fab (círculos) pueden competir por la unión con mAb13.2 biotilinado en un ensayo ELISA. Un "anticuerpo irrelevante" (anticuerpo monoclonal mAb13.8, el cual se une a IL-13 pero no neutraliza su actividad) (asteriscos) no podría competir

por la unión. La concentración de competidor se expresa como anticuerpo o Fab picomolar (pM).

La figura 11b es una gráfica que muestra que mAb13.2 no marcado (diamantes) o fragmento mAb13.2 Fab (círculos) pudo competir por la unión con mAb13.2 biotinilado en un ensayo ELISA. Un "anticuerpo irrelevante" (anticuerpo monoclonal mAb13.8) (asteriscos) no podría competir por la unión. La concentración de competidor se expresa como sitios de unión picomolares (pM), suponiendo dos sitios de unión por IgG intacta y un sitio de unión por fragmento Fab.

La figura 12A es una gráfica que muestra que mAb13.2 (diamantes) y el fragmento mAb13.2 Fab (círculos) inhibieron la división de células TF1 dependiente de IL-13. "Concentración de competidor" es la concentración de mAb13.2 y mAb13.2 Fab, y la concentración se representa como pM de sitios de unión a competidor, suponiendo dos sitios de unión por IgG intacta y un sitio de unión por fragmento Fab.

La figura 12B es una gráfica que muestra que mAb13.2 (diamantes) y fragmento mAb13.2 Fab (círculos) inhibieron la expresión de IL-13 CD23 en PBMCs humanas. La concentración competidora es la concentración de mAb13.2 y fragmento mAb13.2 Fab, y la concentración se representa como pM de sitios de unión a competidor, suponiendo dos sitios de unión por IgG intacto y un sitio de unión por fragmento Fab.

La figura 13 es la secuencia de ADN del vector de

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expresión pAL-981 (SEQ ID NO:5), incluyendo un inserto ADNc de IL-13 humano (hIL13coli). La secuencia de ADNc que codifica para IL-13 está subrayada. Los sitios de restricción Nde1 (posición de nucleótidos 2722) y Xba1 (posición de nucleótido 3070) flanquea la secuencia de ADNc.

La figura 14 es la secuencia de aminoácidos de IL-13Rα1 (No. de Registro en Swiss-Prot P78552) (SEQ ID NO:12).

La figura 15 es un diagrama de cinta que ilustra la estructura del complejo trimérico Fab/IL-13/IL-13Rα1.

La figura 16 es un diagrama de cinta que ilustra la interacción entre IL-13 y el dominio de Ig 1 de IL-13Rα1.

La figura 17 es un diagrama de cinta que ilustra la interacción entre IL-13 y el dominio de Ig 3 de IL-13Rα1.

Descripción detallada de la invención

La estructura de fragmento de unión a antígeno (Fab) de un anticuerpo anti-IL-13 monoclonal de murino, mAb13.2, fue descubierta mediante cristalografía de rayos X (véase tabla 10 abajo). Las estructuras cristalinas de IL-13 humano acomplejado con el fragmento mAb13.2 Fab, y de IL-13 humano acomplejado tanto con el fragmento mAb13.2 como con un fragmento de polipéptido IL-13Rα1 se descubrieron también mediante cristalografía de rayos X (véanse tablas 11 y 12 abajo, respectivamente).

La figura 1A y la figura 1B proporcionan la

información de secuencia de aminoácidos para los polipéptidos de cadena ligera y pesada del fragmento mAb13.2 Fab. Las figuras 2A y 2B proporcionan información de secuencia de aminoácidos para IL-13 humano. La figura 3 proporciona información estructural para un cristal de complejo de IL-13 humano/fragmento mAb13.2 Fab. El fragmento mAB13.2 Fab se une al dominio de unión IL-4R (IL-4Rα de IL-13 humano, el cual incluye los aminoácidos Ser7, Thr8, Ala9, Glu12, Leu48, Glu49, Ile52, Asn53, Arg65, Met66, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74 y Arg86 como se define por SEQ ID NO:4.

La figura 14 proporciona información de secuencia de aminoácidos para el polipéptido receptor de IL-13 humano, IL-13Rα1 humano. Las figuras 16, 16 y 17 proporcionan información estructural para un cristal de un complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab. Además de la interacción descrita arriba entre IL-13 humano y el fragmento mAb13.2 Fab, IL-13 humano forma dos contactos con el polipéptido IL-13Rα1 humano, un con el dominio de Ig 1 del polipéptido IL-13Rα1 humano, y un segundo con el dominio de Ig 3 del polipéptido IL-13Rα1 humano. La interacción con el dominio de Ig 1 implica los residuos Thr88, Ly89, Ile90 y Glu91 de IL-13 humano como se define por SEQ ID NO:4, y los residuos Lys76, Lys77, Ile78 y Ala79 del polipéptido IL-13Rα1 humano, como se define por SEQ ID NO:12

(véase figura 16). La interacción con el dominio de Ig 3 incluye los residuos Arg11, Glu12, Leu13, Ile14, Glu15, Lys104, Lys105, Leu106, Phe107 y Arg108 de IL-13 humano como se define por SEQ ID NO:4 y los residuos Ile254, Ser255, Arg256, Lys318, Cys320 y Tyr321 del polipéptido IL-13Rα1 humano como los definidos por SEQ ID NO:12 (véase figura 17).

En general, un cristal de fragmento mAb13.2 Fab puede prepararse como se desee. Típicamente, el proceso incluye aislar primero el fragmento mAb13.2 Fab, y luego formar un cristal que contenga ese fragmento mAb13.2 Fab. En algunas modalidades, un cristal que contiene el fragmento mAb13.2 Fab puede prepararse como sigue. El anticuerpo intacto es cortado con una enzima proteolítica adecuada (por ejemplo, papaína), y el fragmento mAb13.2 Fab se aísla del fragmento Fc (fragmento cristalizable). El fragmento mAb13.2 Fab aislado es dispuesto en una solución adecuada, y la solución se cristaliza. La solución puede contener, por ejemplo, uno o más polímeros (por ejemplo, polietilenglicol (PEG), una o más sales (por ejemplo, sulfato de potasio y opcionalmente uno o más solventes orgánicos. Los cristales pueden crecer mediante varios métodos, tales como, por ejemplo, asentamiento o difusión de vapor de goteo. En general, la cristalización se puede llevar a cabo a una temperatura de alrededor de 4°C a 60°C (por ejemplo, aproximadamente 4°C a aproximadamente 45°C, tal como

alrededor de 4°C, aproximadamente 15°C, aproximadamente 18°C, aproximadamente 20°C, aproximadamente 25°C, aproximadamente 30°C, aproximadamente 32°C, aproximadamente 35°C, aproximadamente 37°C). Datos estructurales que describan un cristal del fragmento mAb13.2 Fab pueden obtenerse, por ejemplo, mediante difracción de rayos X. Los datos de difracción de rayos X pueden ser recabados usando una variedad de medios para obtener así coordenadas estructurales. Las fuentes de rayos X adecuadas incluyen ánodos giratorios y fuentes sincrotrones (por ejemplo, Advanced Light Source (ALS), Berkeley, California; o Advanced Photon Source (APS), Argonne, Illinois). En ciertas modalidades, los rayos X para generar datos de difracción pueden tener una longitud de onda de alrededor de 0.5 Å a aproximadamente 1.6 Å (por ejemplo, aproximadamente 0.7 Å, aproximadamente 0.9 Å, aproximadamente 1.0 Å, aproximadamente 1.1 Å, aproximadamente 1.3 Å, aproximadamente 1.4 Å, aproximadamente 1.5 Å, aproximadamente 1.6 Å). Los detectores de rayos X adecuados incluyen detectores de área y/o dispositivos de acoplamiento de carga (CCDs) pueden usarse como los detectores.

En general, un cristal del fragmento mAb13.2 Fab puede difractar rayos X hasta una resolución de aproximadamente 3.5 Å o menos (por ejemplo, aproximadamente 3.2 Å o menos, aproximadamente 3.0 Å o menos, aproximadamente

2.8 Å o menos, aproximadamente 2.5 Å o menos, aproximadamente 2.4 Å o menos, aproximadamente 2.3 Å o menos, aproximadamente 2.2 Å o menos, aproximadamente 2.1 Å o menos, aproximadamente 2.0 Å o menos, aproximadamente 1.9 Å o menos, aproximadamente 1.8 Å o menos, aproximadamente 1.7 Å o menos, aproximadamente 1.6 Å o menos, aproximadamente 1.5 Å o menos, aproximadamente 1.4 Å o menos). En algunas modalidades, un cristal del fragmento mAb13.2 Fab puede difractar rayos X hasta una resolución de aproximadamente 1.6Å a aproximadamente 2.5 Å (por ejemplo, de aproximadamente 1.8 Å a aproximadamente 2.2 Å).

En ciertas modalidades, un cristal del fragmento mAb13.2 Fab puede ser ortorrómbico con el grupo espacial $P2_12_12_1$, y dimensiones de células unitarias a=54.4, b=98.0, c=108.5 y $\alpha=\beta=\gamma=90°C$.

En general, un complejo que incluya IL-13 humano y el fragmento mAb13.2 Fab puede prepararse y cristalizarse como se desee. En algunas modalidades, el proceso es como sigue. IL-13 humano se expresa a partir de un plásmido de ADN. La expresión puede conducirse como un promotor, tal como un promotor inducible. IL-13 humano puede ser expresado como una proteína de fusión con un marcador adecuado (por ejemplo, para facilitar el aislamiento de IL-13 humano de células), tal como glutationa-S-transferasa (GST), myc, HA, hexahistidina, o un marcador FLAG. Una proteína de fusión

puede ser cortada en un sitio de proteasa diseñado en la proteína de fusión, tal como en o cerca del sitio de fusión entre el polipéptido y el marcador. IL-13 humano puede mezclarse con el fragmento mAb13.2 Fab antes de la purificación (por ejemplo, antes del corte del marcador de polipéptido), o IL-13 humano puede mezclarse con el fragmento mAb13.2 Fab después de la purificación. En algunas modalidades, el fragmento mAb13.2 Fab puede ser mezclado con IL-13 humano antes de la purificación y de nuevo después de la purificación. En algunas modalidades, polipéptido IL-13 humano y el fragmento mAb13.2 Fab se combinan en una solución para recabar datos espectrales para el complejo, datos de RMN para el complejo o para cultivar un cristal del complejo. La solución puede contener, por ejemplo, una o más sales (por ejemplo, una sal de potasio), uno o más polímeros (por ejemplo, polietilenglicol (PEG)), y/o uno o más solventes orgánicos. Los cristales pueden ser cultivados mediante varios medios, tales como, por ejemplo, asentamiento o difusión de vapor por goteo. En general, la cristalización se puede llevar a cabo a aproximadamente 16°C a 24°C (por ejemplo, alrededor de 17°C a 23°C o 18°C a 21°C).

La información estructural para un cristal de un complejo IL-13 humano/fragmento mAb13.2 Fab se puede obtener mediante difracción de rayos X. En general, un cristal de un complejo de IL-13 humano/fragmento mAb13.2 Fab puede

difractar rayos X hasta una resolución de aproximadamente 3.5 Å o menos (por ejemplo, aproximadamente 3.2 Å o menos, aproximadamente 3.0 Å o menos, aproximadamente 2.8 Å o menos, aproximadamente 2.5 Å o menos, aproximadamente 2.4 Å o menos, aproximadamente 2.3 Å o menos, aproximadamente 2.2 Å o menos, aproximadamente 2.1 Å o menos, aproximadamente 2.0 Å o menos, aproximadamente 1.9 Å o menos, aproximadamente 1.8 Å o menos, aproximadamente 1.7 Å o menos, aproximadamente 1.6 Å o menos, aproximadamente 1.5 Å o menos, aproximadamente 1.4 Å o menos). En algunas modalidades, un cristal de un complejo de IL-13 humano/fragmento mAb13.2 Fab puede difractar rayos X hasta una resolución de aproximadamente 1.6 Å a aproximadamente 2.5 Å (por ejemplo, alrededor de 1.8 Å a aproximadamente 2.2 Å).

En ciertas modalidades, un cristal de un complejo IL-13 humano/fragmento mAb13.2 Fab puede ser cúbico con un grupo espacial $P2_13$, y dimensiones de células unitarias a=b=c=125.3 y $\alpha=\beta=\gamma=90°C$. La estructura del complejo puede resolverse hasta una resolución de 1.8 Å.

En general, un complejo que incluye IL-13 humano, el fragmento mAb13.2 Fab y un polipéptido IL-13Rα1 puede prepararse y cristalizarse como se desee. En algunas modalidades, el proceso es el siguiente. Un polipéptido IL-13Rα1 humano es expresado a partir de un plásmido de ADN en la cepa de levadura *Pichia pastoris*, de tal forma que el

polipéptido expresado sea glicosilado. La expresión del plásmido de ADN puede conducirse por un promotor, tal como un promotor inducible. El polipéptido IL-13Rα1 humano puede ser expresado como una proteína de fusión con un marcador adecuado (por ejemplo, para facilitar el aislamiento del polipéptido IL-13Rα1 humano de las células), tal como una glutationa-S-transferasa (GST), marcador myc, HA, hexahistidina o FLAG. Una proteína de fusión puede cortarse en un sitio de proteasa designado en una proteína de fusión, tal como en o cerca del sitio de fusión entre el polipéptido y el marcador. El polipéptido IL-13Rα1 humano puede mezclarse con IL-13 humano para formar un complejo, y luego los polipéptidos del complejo pueden desglicosilarse mediante tratamiento con una enzima tal como endoglicosidasa H. El fragmento mAb13.2 Fab puede añadirse al complejo desglicosilado para formar un complejo polipéptido IL-13Rα1 humano/IL-13 humano/mAb13.2 Fab.

En algunas modalidades, el IL-13Rα1 humano, IL-13 humano y fragmento mAb13.2 Fab se combinan en una solución para recolectar datos espectrales para el complejo. Datos de RMN para el complejo o para cultivar un cristal del complejo. La solución puede contener, por ejemplo, una o más sales (por ejemplo, una sal potasio), uno o más polímero (por ejemplo, polietilenglicol (PEG)) y/o uno o más solventes orgánicos. Los cristales pueden cultivarse mediante varios métodos,

tales como, por ejemplo, asentamiento o difusión de vapor por goteo. En general, la cristalización se puede llevar a cabo aproximadamente a 16°C a 24°C (por ejemplo, alrededor de 17°C a 23°C o 18°C a 21°C).

La información estructural para un cristal de un complejo IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab puede obtenerse mediante difracción de rayos X. En general, un cristal de un polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab puede difractar rayos X hasta una resolución de aproximadamente 3.5 Å o menos (por ejemplo, aproximadamente 3.2 Å o menos, aproximadamente 3.0 Å o menos, aproximadamente 2.8 Å o menos, aproximadamente 2.5 Å o menos, aproximadamente 2.4 Å o menos, aproximadamente 2.3 Å o menos, aproximadamente 2.2 Å o menos, aproximadamente 2.1 Å o menos, aproximadamente 2.0 Å o menos, aproximadamente 1.9 Å o menos, aproximadamente 1.8 Å o menos, aproximadamente 1.7 Å o menos, aproximadamente 1.6 Å o menos, aproximadamente 1.5 Å o menos, aproximadamente 1.4 Å o menos). En algunas modalidades, un cristal del complejo IL-13 humano/fragmento mAb13.2 Fab puede difractar rayos X hasta una resolución de aproximadamente 1.6 Å a aproximadamente 2.5 Å (por ejemplo alrededor de 1.8 Å a aproximadamente 2.2 Å).

En ciertas modalidades, un cristal de un complejo polipéptido IL-13Rα1/IL-13 humano/fragmento mAb13.2 Fab puede ser cúbico con grupo espacial I4, y dimensiones de células

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unitarias a=b=164.9 Å, c=74.8 Å, y α=β=γ=90°C. La estructura del complejo puede resolverse hasta una resolución de 2.2 Å.

Los datos de difracción de rayos X de un cristal del fragmento mAb13.2 Fab, complejo de IL-13 humano/fragmento mAb13.2 Fab, o complejo de polipéptido IL-13Rγ1/IL-13 humano/fragmento mAb13.2 Fab se pueden usar para obtener las coordenadas estructurales de los átomos en el anticuerpo o el complejo. Las coordenadas estructurales son coordenadas Cartesianas que describen la ubicación de átomos en el espacio tridimensional en relación a otros átomos en el complejo. Como un ejemplo, las coordenadas estructurales listadas en la tabla 10 son las coordenadas estructurales de un fragmento mAb13.2 Fab cristalino. Estas coordenadas estructurales describen la ubicación de átomos del fragmento mAb13.2 Fab unos en relación con otros. Como otro ejemplo, las coordenadas estructurales listadas en la tabla 11 son las coordenadas estructurales de un complejo IL-13 humano/fragmento mAb13.2 Fab cristalino. Estas coordenadas estructurales describen la ubicación de átomos de la IL-13 humano en unas en relación con otras, la ubicación de átomos en la IL-13 humano en relación con los átomos en el fragmento mAb13.2 Fab y la ubicación de átomos en el fragmento mAb13.2 Fab unos en relación con otros. Como otro ejemplo más, las coordenadas estructurales listadas en la tabla 12 son las coordenadas estructurales de un complejo polipéptido IL-13Rα1

humano/IL-13 humano/fragmento mAb13.2 Fab cristalino. Estas coordenadas estructurales describen la ubicación de átomos del polipéptido IL-13Rα1 unos en relación con otros, la ubicación de átomos en el polipéptido IL-13Rα1 en relación con los átomos en IL-13 humano, la ubicación de átomos en IL-13 humano unos en relación con otros, la ubicación con átomos en IL-13 humano unos en relación con los átomos en el fragmento mAb13.2 Fab y la ubicación de átomos en el fragmento mAb13.2 Fab unos en relación con otros.

Las coordenadas estructurales de un cristal pueden modificarse mediante manipulación matemática, tal como mediante la inversión o adiciones o sustracciones de enteros. Así, las coordenadas estructurales son coordenadas relativas. Como un ejemplo, las coordenadas estructurales que describen la ubicación de átomos en el fragmento mAb13.2 Fab no están específicamente limitadas por las coordenadas x, y y z reales de la tabla 10. Como otro ejemplo, las coordenadas estructurales que describen la ubicación de átomos en el IL-13 humano unido al fragmento mAb13.2 Fab no están limitadas específicamente por las coordenadas x, y y z reales de la tabla 11. Como otro ejemplo más, las coordenadas estructurales que describen la ubicación de átomos en el IL-13 humano unido tanto al fragmento mAb13.2 Fab como al polipéptido IL-13Rα1 humano no están limitadas específicamente por las coordenadas x, y y z reales de la

tabla 12.

Las coordenadas estructurales del fragmento mAb13.2 Fab o del complejo IL-13 humano/fragmento mAb13.2 Fab o complejo polipéptido IL-Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab se pueden usar para derivar una representación (por ejemplo, una representación bidimensional o representación tridimensional) del fragmento mAb13.2 Fab, un fragmento del fragmento mAb13.2 Fab, IL-13 humano, un fragmento de IL-13 humano, el polipéptido IL-13Rα1 humana, un fragmento del polipéptido IL-13Rα1, el complejo IL-13 humano/fragmento mAb13.2 Fab o el complejo polipéptido IL-Rα1 humano/IL-13 humano/fragmento mAb 13.2 Fab, o un fragmento de cualquier complejo. Esta representación puede ser útil para un número de aplicaciones, incluyendo, por ejemplo, la visualización, identificación y caracterización de un sitio activo del polipéptido. En ciertas modalidades, una representación tridimensional puede incluir las coordenadas estructurales del fragmento mAb13.2 de acuerdo con la tabla 10 ± una desviación cuadrada promedio de raíz de los átomos de carbono alfa de los aminoácidos de aproximadamente 1.5 Å o menos (por ejemplo, alrededor de 1.0 Å o menos, o aproximadamente 0.5 Å o menos). En otras modalidades, una representación tridimensional puede incluir las coordenadas estructurales de un complejo IL-13 humano/fragmento mAb13.2 Fab de acuerdo con la tabla 11 ± una desviación cuadrada de

raíz promedio de los átomos de carbono alfa de los aminoácidos de no más de aproximadamente 1.5 Å (por ejemplo, no más de aproximadamente 1.0 Å, no más de alrededor de 0.5 Å o menos). En otras modalidades, una representación tridimensional puede incluir las coordenadas estructurales de un complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab de acuerdo con la tabla 12 ± una desviación cuadrada promedio de raíz a partir de los átomos de carbono alfa de los aminoácidos de no más de aproximadamente 1.5 Å (por ejemplo, no más de aproximadamente 1.0 Å, no más de aproximadamente 0.5 Å o menos). Desviación cuadrada promedio de raíz (desviación rms, o desviación rmsd) es la raíz cuadrada de la media aritmética de los cuadrados de las desviaciones a partir de la media, y es una manera de expresar la desviación o variación a partir de coordenadas estructurales. Sustituciones conservadoras de aminoácidos pueden dar como resultado una representación molecular que tenga coordenadas estructurales dentro de la desviación cuadrada promedio de raíz indicada. Por ejemplo, dos modelos moleculares de polipéptidos que difieran uno de otro por sustituciones de aminoácido conservadoras pueden tener coordenadas de átomos de estructura de base dentro de una desviación rms indicada, tal como menos de aproximadamente 1.5 Å (por ejemplo, menos de aproximadamente 1.0 Å, menos de alrededor de 0.5 Å). Los átomos de estructura de base de un

polipéptido incluyen los átomos de carbono alfa (C_α o CA), átomos de carbono carbonilo (C) y átomos de nitrógeno de amida (N).

Varios programas de software permiten la representación gráfica de un conjunto de coordenadas estructurales para obtener una representación de una molécula o complejo molecular, tal como el fragmento mAb13.2 Fab o el complejo IL-13 humano/fragmento mAb13.2 Fab o el complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab. En general, esta representación debe reflejar en forma precisa (relativa y/o absolutamente) coordenadas estructurales, o información derivada a partir de coordenadas estructurales tales como distancias o ángulos entre características. La representación puede ser una cifra bidimensional, tal como una cifra bidimensional estereoscópica, o una presentación bidimensional interactiva (por ejemplo, una presentación por computadora que pueda presentar diferentes caras de la molécula o complejo molecular), o una presentación bidimensional estereoscópica interactiva. Una presentación visual bidimensional interactiva puede ser, por ejemplo, una presentación visual por computadora que pueda ser girada para mostrar diferentes caras de un polipéptido, un fragmento de un polipéptido, un complejo y/o un fragmento de un complejo. En algunas modalidades, la representación es una representación

tridimensional. Como un ejemplo, un modelo tridimensional puede ser un modelo físico de una estructura molecular (por ejemplo, un modelo de bola y barra). Como otro ejemplo, una representación tridimensional puede ser una representación gráfica de una estructura molecular (por ejemplo, un dibujo o una figura presentada sobre un visor de computadora). Una representación gráfica bidimensional (por ejemplo un dibujo) puede corresponder una representación tridimensional cuando la representación bidimensional refleja información tridimensional, por ejemplo, a través del uso de perspectiva, sombreado o la obstrucción de características más distantes del observador por características más cercanas para el observador. En algunas modalidades, una representación puede modelarse en más de un nivel. Como un ejemplo, cuando la representación tridimensional incluye un polipéptido, tal como IL-13 humano unido al fragmento mAb13.2 Fab, el polipéptido puede ser representado en uno o más niveles diferentes de estructura, tal como la estructura primaria (secuencia de aminoácidos), estructura secundaria (por ejemplo, hélices α y láminas β), estructura terciaria (doblez general) y estructura cuaternaria (estado de oligomerización). Los polipéptidos de cadena pesada y ligera del fragmento mAb13.2 Fab también pueden representarse en uno o más niveles estructurales diferentes. Una representación puede incluir niveles diferentes de detalle. Por ejemplo, la

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representación puede incluir las ubicaciones relativas de características estructurales secundarias de una proteína sin especificar las posiciones de átomos. Una representación más detallada podría, por ejemplo, incluir las posiciones de átomos.

En algunas modalidades, una representación puede incluir información además de las coordenadas estructurales de los átomos en el fragmento mAb13.2 Fab, el complejo IL-13 humano/fragmento mAb13.2 Fab o el complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab. Por ejemplo, una representación puede proporcionar información que se refiera a la forma de una superficie accesible por solventes, los radios van der Waals de los átomos del modelo y el radio de van der Waals de un solvente (por ejemplo, agua). Otras características que pueden derivarse de una representación incluyen, por ejemplo, potencial electrostático, la ubicación de huecos o cavidades dentro de una estructura macromolecular y la ubicación de enlaces de hidrógeno y puentes de sal.

Un agente que interactúa con el fragmento mAb13.2 Fab, IL-13 humano o el polipéptido IL-13Rα1 puede identificarse o diseñarse mediante un método que incluya usar una representación del fragmento mAb13.2 Fab, un IL-13 humano, un polipéptido IL-13Rα1 humano, un complejo IL-13 humano/fragmento mAb13.2 Fab o un complejo polipéptido IL-13-

Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab. Tipos ejemplares de representaciones incluyen las representaciones descritas arriba. En algunas modalidades, la representación puede ser de un polipéptido análogo, fragmento de polipéptido, complejo o fragmento de un complejo. Un agente candidato que interactúa con la representación puede diseñarse o identificarse al llevar a cabo análisis de ajuste por computadora del agente candidato con la representación. En general, un agente es una molécula. Ejemplos de agentes incluyen polipéptidos, ácidos nucleicos (incluyendo ADN o ARN), o moléculas pequeñas (por ejemplo, moléculas orgánicas pequeñas). Un agente puede ser un ligando, y puede actuar, por ejemplo, como un agonista o antagonista. Un agente que interactúe con un polipéptido (por ejemplo, IL-13 humano, polipéptido IL-13Rα1 humano) puede interactuar transitoriamente o establemente con el polipéptido. La interacción puede mediarse por cualquiera de las fuerzas indicadas en la presente, incluyendo, por ejemplo, unión a hidrógeno, fuerzas electrostáticas, interacciones hidrofóbicas e interacciones de van der Waals.

Como se indicó arriba, la cristalografía de rayos X puede usarse para obtener coordenadas estructurales de un fragmento mAb13.2 Fab, un complejo IL-13 humano/fragmento mAb13.2 Fab o un complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab. Sin embargo, estas coordenadas

estructurales pueden obtenerse usando otras técnicas incluyendo técnicas de RMN. Información estructural adicional puede obtenerse a partir de técnicas espectrales (por ejemplo, dispersión giratoria óptica (ORD), dicroismo circular (CD)), modelación de homología y métodos computacionales tales como aquellos que incluyen datos de mecánicas moleculares o de ensayos de dinámica).

En algunas modalidades, los datos de difracción de rayos X pueden usarse para construir un mapa de densidad electrónica del fragmento mAb13.2 Fab, el complejo IL-13 humano/fragmento mAb13.2 Fab, o el complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab. El mapa de densidad electrónica se puede usar para derivar una representación (por ejemplo, una representación bidimensional o una representación tridimensional) del fragmento mAb13.2 Fab, un fragmento del fragmento mAb13.2 Fab, IL-13 humano o un fragmento de IL-13 humano, el polipéptido IL-13Rα1 humano, o un fragmento del polipéptido IL-13Rα1 humano, el complejo IL-13 humano/fragmento mAb13.2 Fab, el complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab, o un fragmento de cualquier complejo. La creación de un mapa de densidad electrónica típicamente incluye usar información que se refiere a la fase de la dispersión de rayos X. La información de fase puede ser extraída, por ejemplo, ya sea de los datos de difracción o de experimentos de difracción

complementarios para completar la construcción del mapa de densidad de electrones. Los métodos para calcular fases a partir de datos de difracción de rayos X incluyen, sin limitación, dispersión anómala de varias longitudes de onda (MAD), reemplazo isomorfo múltiple (MIR), reemplazo isomorfo múltiple con dispersión anómala (MIRAS), reemplazo isomorfo individual con dispersión anómala (SIRAS), aplanamiento de solvente espacial recíproco, reemplazo molecular o una combinación de los mismos. Estos métodos generan información de fase al hacer modificaciones estructurales isomorfas a la proteína nativa, tal como al incluir un átomo pesado o cambiar la potencia de dispersión de un átomo pesado ya presente, y luego midiendo las amplitudes de difracción para la proteína nativa y cada uno de los casos modificados. Si la posición del átomo pesado adicional o el cambio en su potencia de dispersión se conoce, entonces la fase de cada rayo X difractado puede determinarse al resolver un conjunto de ecuaciones de fases simultáneas. La ubicación de los sitios de átomos pesados puede identificarse usando un programa de computadora, tal como SHELXS (Sheldrick, Institut Anorg. CEIME, Göttingen, Alemania), y los datos de difracción pueden procesarse usando programas de computadora tales como MOSFLM, SCALA, SOLOMON y SHARP ("The CCP4 Suite: Programs for Protein Crystallography", *Acta Crystallogr. Sect. D*, 54:905-921, 1997; de La Fortelle y Brigogne, *Meth. Enzym.* 276:472-

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494, 1997). Después de la determinación de la fase, un mapa de densidad de electrones del complejo puede construirse.

El mapa de densidad de electrones puede usarse para derivar una representación de un polipéptido, un complejo o un fragmento de un polipéptido o complejo al alinear un modelo tridimensional de un complejo o polipéptido (por ejemplo, un complejo que contenga un polipéptido unido a un anticuerpo) con el mapa de densidad de electrones. El proceso de alineación da como resultado un modelo comparativo que muestra el grado al cual el mapa de densidad de electrones calculado varía del modelo del polipéptido previamente conocido o el complejo previamente conocido. El modelo comparativo se refina después sobre uno o más ciclos (por ejemplo, dos ciclos, tres ciclos, cuatro ciclos, cinco ciclos, seis ciclos, siete ciclos, ocho ciclos, nueve ciclos, diez ciclos) para generar un mejor ajuste con el mapa de densidad de electrones. Un programa de software tal como CNS (Brunger *et al.*, *Acta Crystallogr.* D54:905-921, 1998) se puede usar para refinar el modelo. La calidad de ajuste en el modelo comparativo se puede medir mediante, por ejemplo, un valor R_{work} o R_{free}. Un valor más pequeño de R_{work} o R_{free} indica generalmente un mejor ajuste. Las desalineaciones en el modelo comparativo se pueden ajustar para proporcionar un modelo comparativo modificado y un valor R_{work} o R_{free} más bajo. Los ajustes pueden basarse en información que se refiera a

IL-13 humano, IL-13Rα1 humana, el fragmento mAb13.2 Fab, el polipéptido previamente conocido y/o el complejo previamente conocido. Esta información incluye, por ejemplo, contenido de lámina beta o helicoidal calculado, dominios hidrofóbicos e hidrofílicos y patrones de doblez de proteínas, los cuales pueden derivarse, por ejemplo, de secuencia de aminoácidos, modelado de homología y datos espectrales. Como un ejemplo, en modalidades en las cuales un modelo de un complejo previamente conocido de un polipéptido o ligando se usa, un ajuste puede incluir reemplazar el ligando en el complejo previamente conocido con el fragmento mAb13.2. Como otro ejemplo, en ciertas modalidades, un ajuste puede incluir reemplazar un aminoácido en el polipéptido previamente conocido con el aminoácido en el sitio correspondiente de IL-13 humano. Cuando los ajustes al modelo comparativo modificado satisfacen un mejor ajuste al mapa de densidad de electrones, el modelo resultante es aquél que se determina que describe el anticuerpo o polipéptido o complejo del cual se derivaron los datos de rayos X (por ejemplo, el complejo IL-13 humano/fragmento mAb13.2 Fab). Los métodos de estos procesos se describen, por ejemplo, en Carter y Sweet, eds., "Macromolecular Crystallography" en Methods in Enzymology, vol. 277, parte B, Nueva York: Academic Press, 1997, y artículos en el mismo, por ejemplo, Jones y Kjeldgaard, "Electron-Density Map Interpretation", p. 173, y Kleywegt y

Jones, "Model Building and Refinement Practice", p. 208.

En algunas modalidades, una representación del fragmento mAb13.2 Fab puede derivarse al alinear un modelo estructural previamente determinado de un fragmento Fab de anticuerpo diferente (pero similar) (por ejemplo, un fragmento de anticuerpo 2E8 Fab, No. de identificación de proteína en Databank 12E8) con el mapa de densidad de electrones del fragmento mAb13.2 Fab derivado de datos de difracción de rayos X. Una representación de un complejo IL-13 humano/fragmento mAb13.2 Fab puede derivarse subsecuentemente al alinear el modelo estructural previamente determinado del fragmento mAb13.2 Fab con el mapa de densidad de electrones del complejo. Una representación de un complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab puede derivarse subsecuentemente al alinear el modelo estructural previamente determinado del complejo IL-13 humano/fragmento mAb13.2 Fab con el mapa de densidad de electrones del complejo polipéptido IL-13Rα1/IL-13 humano/fragmento mAb13.2 Fab.

Una máquina, tal como una computadora, puede programarse en memoria con las coordenadas estructurales del fragmento mAb13.2 Fab, un complejo IL-13 humano/fragmento mAb13.2 Fab o un complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab junto con un programa capaz de generar una representación gráfica tridimensional de las

coordenadas estructurales en un presentador visual conectado a la máquina. Como alternativa o además, un sistema de software puede diseñarse y/o utilizarse para aceptar y almacenar las coordenadas estructurales. El sistema de software puede ser capaz de generar una representación gráfica de las coordenadas estructurales. El sistema de software también puede ser capaz de tener acceso a bases de datos externas para identificar compuestos (por ejemplo, polipéptidos) con características estructurales similares a las de IL-13 humano o IL-13Rα1 humano y/o para identificar uno o más agentes candidatos con características que pudieran hacer a los agentes candidatos propensos a interactuar con IL-13 humano o IL-13Rα1 humano. El sistema de software también puede ser capaz de tener acceso a bases de datos externas para identificar compuestos que interactúen con IL-13 humano o IL-13Rα1 humano en virtud del conocimiento de la estructura del fragmento mAb13.2 Fab, o polipéptido IL-13Rα1 humano, y su interacción con IL-13 humano.

Una máquina que tenga una memoria que contenga datos estructurales o un sistema de software que contenga estos datos puede ayudar al diseño racional o selección de ligandos IL-13, tales como agonistas o antagonistas. Por ejemplo, esta máquina o sistema de software puede ayudar en la evaluación de la capacidad de un agente para asociarse con IL-13 humano, puede ayudar en el modelado de compuestos o

proteínas relacionados mediante homología estructural o de secuencia con IL-13 humano, o puede ayudar en la evaluación de la capacidad de un agente para interferir con la bioactividad de IL-13 humano. Una bioactividad de IL-13 humano puede hacer cualquier efecto que el polipéptido desarrolle en o dentro de una célula o tejido *in vivo* o *in vitro*. Las bioactividades ejemplares de IL-13 humano se describen en la presente, tal como los ejemplos 1 y 2.

Una máquina que tenga una memoria que contenga datos estructurales o un sistema de software que contenga estos datos puede ayudar en el diseño o selección racional de ligandos IL-13Rα1, tales como agonistas o antagonistas. Por ejemplo, esta máquina o sistema de software puede ayudar en la evaluación de la capacidad de un agente para asociarse con un polipéptido IL-13Rα1 humano, puede ayudar en el modelado de compuestos o proteínas relacionados mediante homología estructural o de secuencia con un polipéptido IL-13Rα1 humano, o puede ayudar en la evaluación de la capacidad de un agente para interferir con la bioactividad de un polipéptido IL-13Rα1 humano. Una bioactividad de un polipéptido IL-13Rα1 humano puede ser cualquier efecto que el polipéptido desarrolle en o dentro de una célula o tejido *in vivo* o *in vitro*. Las bioactividades ejemplares de IL-13Rα1 humano se describen en la presente, tal como en el ejemplo 3.

La máquina puede producir una representación (por

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ejemplo, una representación bidimensional o una representación tridimensional) del fragmento mAb13.2 Fab o un fragmento del fragmento mAb13.2 Fab, IL-13 humano o un fragmento de IL-13 humano, un polipéptido IL-13Rα1 humano o un fragmento de un polipéptido IL-13Rα1 humano, un complejo IL-13 human/fragmento mAb13.2 Fab, un complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab, o un fragmento de cualquier complejo. Un sistema de software, por ejemplo, puede hacer que la máquina produzca esta información. La máquina puede incluir un medio de almacenamiento de datos legibles por máquina incluyendo un material de almacenamiento de datos codificados con datos legibles por máquina. Los datos legibles por máquina pueden incluir coordenadas estructurales de átomos del fragmento mAb13.2 Fab o átomos de un fragmento del fragmento mAb13.2 Fab, átomos del IL-13 humano o átomos de un fragmento de IL-13 humano, átomos de un complejo IL-13 humano/fragmento mAb13.2 Fab, átomos de un complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab, o átomos de cualquier complejo. Los medios de almacenamiento legibles por máquina incluyendo material de almacenamiento de datos pueden incluir unidades de disco duro de computadora convencionales, discos flexibles, cinta DAT, CD-ROM, DVD, y otros medios magnéticos, magneto-ópticos, ópticos y diferentes que pudieran adaptarse para usarse con una

computadora. La máquina también puede tener una memoria de trabajo para almacenar instrucciones para el procesamiento de los datos legibles por máquina, así como una unidad de procesamiento central (CPU) acoplada a la memoria de trabajo y al medio de almacenamiento de datos legibles por máquina con el propósito de procesar los datos legibles por máquina en la representación tridimensional deseada. Finalmente, un visor puede conectarse al CPU de tal forma que la representación tridimensional pueda ser visualizada por el usuario. En consecuencia, cuando se usa con una máquina programada con instrucciones para usar los datos (por ejemplo, una computadora cargada con uno o más programas de la clase descrita en la presente) la máquina es capaz de desplegar una representación gráfica (por ejemplo, una representación gráfica bidimensional, una representación gráfica tridimensional) de cualquiera de los polipéptidos, fragmentos de polipéptido, complejos o fragmentos de complejo descritos en la presente.

Un visor (por ejemplo, una pantalla de computadora) puede mostrar una representación del fragmento mAb13.2 Fab o un fragmento del fragmento mAb13.2 Fab, IL-13 humano o un fragmento de IL-13 humano, un polipéptido IL-13Rα1 humano o un fragmento de un polipéptido IL-13Rα1 humano, un complejo IL-13 humano/fragmento mAb13.2 Fab, un complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab, o un

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fragmento de cualquier complejo. La representación también puede incluir un agente unido a IL-13 humano o el polipéptido IL-13Rα1 humano, o el usuario puede sobreponer un modelo tridimensional de un agente encima de la representación de IL-13 humano o el polipéptido IL-13Rα1 humano. El agente puede ser un agonista (por ejemplo, un agonista candidato) de IL-13 humano o IL-13Rα1 humano, o un antagonista (por ejemplo, un antagonista candidato) de IL-13 humano o IL-13Rα1 humano. En algunas modalidades, el agente puede ser un compuesto conocido o un fragmento de un compuesto. En ciertas modalidades, el agente puede ser un agente previamente desconocido, o un fragmento de un compuesto previamente desconocido.

El usuario puede inspeccionar la representación resultante. Una representación del fragmento mAb13.2 Fab o fragmento del fragmento mAb13.2 Fab, IL-13 humano o fragmento del IL-13 humano, el polipéptido IL-13Ra1 humano o fragmento del polipéptido IL-13Ra1 humano, el complejo IL-13 humano/fragmento mAb13.2 Fab, el complejo polipéptido IL-13Rα1 humano/IL-13 humano/fragmento mAb13.2 Fab, o fragmento de cualquier complejo puede generarse, por ejemplo, al alterar una representación previamente existente de estos polipéptidos y complejos de polipéptidos. Por ejemplo, puede haber una distancia preferida, o escala de distancias, entre átomos del anticuerpo y átomos del IL-13 humano cuando se

considere una representación nueva de un complejo, o fragmento de un complejo. En otro ejemplo, puede haber una distancia preferida o escala de distancias, entre átomos del IL-13 humano y el polipéptido IL-13Rα1 humano cuando se considere una nueva representación de un complejo o fragmento de un complejo. Distancias más largas que una distancia preferida pueden asociarse con una interacción débil entre el agente y sitio activo (por ejemplo, el sitio de unión al receptor IL-13 (tal como un polipéptido receptor IL-13Rα1 o un polipéptido receptor IL-4) en el polipéptido IL-13). Distancias más cortas que una distancia preferida pueden asociarse con fuerzas repulsivas que pudieran debilitar la interacción entre el agente y el polipéptido. Un choque estérico puede ocurrir cuando las distancias entre átomos sean demasiado cortas. Un choque estérico ocurre cuando las ubicaciones de dos átomos están irracionalmente juntas, por ejemplo, cuando dos átomos son separados por una distancia menor que la suma de sus radios de van der Waals. Si existe un choque estérico, el usuario puede ajustar la posición del agente en relación al IL-13 humano (por ejemplo, una traducción de cuerpo rígido o rotación del agente), hasta que se libere el choque estérico. El usuario puede ajustar la conformación del agente o del IL-13 humano en las inmediaciones del agente para de esta manera liberar un choque estérico. Los choques estéricos también pueden

removerse al alterar la estructura del agente; por ejemplo, al cambiar un "grupo voluminoso", tal como un anillo aromático, por un grupo más pequeño, tal como por un grupo metilo o hidroxi, o al cambiar un grupo rígido por un grupo flexible que puede recibir una conformación que no produzca un choque estérico. Las fuerzas electrostáticas también pueden tener influencia en una interacción entre un agente y un polipéptido (tal como la parte del polipéptido que interactúa con un polipéptido receptor, por ejemplo, un polipéptido IL-13Rα1 humano o un polipéptido IL-4R humano). Por ejemplo, las propiedades electrostáticas pueden estar asociadas con fuerzas repulsivas que pudieran debilitar la interacción entre el agente y el polipéptido IL-13. Al alterar la carga del agente, por ejemplo, reemplazando un grupo cargado positivamente con un grupo neutro puede liberarse la repulsión electrostática. Procesos similares pueden llevarse a cabo para diseñar un agente que interactúe con un polipéptido IL-13Rα1 humano, tal como en las inmediaciones de interacción entre el polipéptido IL-13Rα1 humano e IL-13 humano.

Las fuerzas que influencian la fuerza de unión entre el fragmento mAb13.2 Fab e IL-13 humano pueden ser evaluadas en el modelo de polipéptido/agente. Asimismo, las fuerzas que influencian la fuerza de unión entre IL-13 humano y el polipéptido IL-13Rα1 pueden evaluarse en el modelo

polipéptido/agente. Éstos pueden incluir, por ejemplo, unión a hidrógeno, fuerzas electrostáticas, interacciones hidrofóbicas, interacciones de van der Waals, interacciones dipolares-dipolares, fuerzas de apilado π e interacciones de anión π. El usuario puede evaluar estas fuerzas visualmente, por ejemplo al notar un par donador/aceptor de enlaces de hidrógeno dispuesto con una distancia y ángulo adecuado para un enlace de hidrógeno. Con base en la evaluación, el usuario puede alterar el modelo para encontrar una interacción más favorable entre el IL-13 humano, o polipéptido IL-13Rα1 humano, y el agente. Alterar el modelo puede incluir cambiar la estructura tridimensional de un modelo polipéptido sin alterar su estructura química, por ejemplo al alterar la conformación de cadenas laterales de aminoácidos o ángulos diédricos de la estructura de base. Al alterar el modelo se puede incluir alterar la posición o conformación del agente, como se describió arriba. Alterar el modelo también puede incluir alterar la estructura química del agente, por ejemplo al sustituir, añadir o remover grupos. Por ejemplo, si un donador de enlaces de hidrógeno en el IL-13 humano se localiza cerca de un donador de enlaces de hidrógeno en el agente, el usuario puede reemplazar el donador de enlaces de hidrógeno en el agente con un receptor de enlaces de hidrógeno.

Las ubicaciones relativas del agente y el IL-13

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humano, o sus conformaciones, pueden ajustarse para encontrar una geometría de unión optimizada para un agente particular al polipéptido IL-13. Asimismo, las ubicaciones relativas del agente y el polipéptido IL-13Rα1 humano se pueden ajustar para encontrar una geometría de unión optimizada para un agente particular al polipéptido IL-13Rα1. Una geometría de unión optimizada se caracteriza, por ejemplo, por distancias y ángulos de enlaces de hidrógeno favorables, atracciones electrostáticas máximas, repulsiones electrostáticas mínimas, el secuestro de porciones hidrofóbicas lejos de un ambiente acuoso, y la ausencia de choques estéricos. La geometría optimizada puede tener la energía calculada más baja de una familia de geometrías posibles para un complejo IL-13 humano/anticuerpo, o un complejo IL-13 humano/receptor. Una geometría optimizada puede determinarse, por ejemplo, a través de cálculos mecánicos moleculares o dinámicos moleculares.

Se puede generar una serie de representaciones de IL-13 humano unido a diferentes agentes. Igualmente, puede generarse una serie de representaciones de un polipéptido IL-13Rα1 humano unido diferentes agentes. Se puede calcular una puntuación para cada representación. La puntuación puede describir, por ejemplo, una fuerza de interacción esperada entre IL-13 humano y el agente. La puntuación puede reflejar uno de los factores descritos arriba que tengan influencia en

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la potencia de unión. La puntuación puede ser una puntuación agregada que refleje más de uno de los factores. Los agentes diferentes pueden clasificarse de acuerdo a sus puntuaciones.

Las etapas en el diseño del agente pueden llevarse a cabo en una forma automatizada por una máquina (por ejemplo, una computadora). Por ejemplo, una representación de IL-13 humano o un polipéptido IL-13Rα1 humano puede programarse en la máquina, junto con representaciones de agentes candidatos. La máquina puede encontrar una geometría de unión optimizada para cada uno de los agentes candidatos al sitio de unión a receptor, y calcular una puntuación para determinar cuál de los agentes en la serie es probable de interactuar más fuertemente con IL-13 humano, o el polipéptido IL-13Rα1 humano.

Un sistema de software puede diseñarse y/o implementarse para facilitar estas etapas. Los sistemas de software (por ejemplo, programas de computadora) usados para generar representaciones o llevar a cabo los análisis de ajuste necesarios incluyen, pero no están limitados a: MCSS, Ludi, QUANTA, Insight II, Cerius2, CHARMm, y Modeler from Accelrys, Inc. (San Diego, CA); SYBYL, Unity, FleXX y LEAPFROG de Tripos, Inc. (San Luis, MO); AUTODOCK (Scripps Research Institute, La Jolla, CA), GRID (universidad de Oxford, Oxford, Reino Unido); DOCK (Universidad de California, San Francisco, CA); y Flo$^+$ y Flo99 (Thistlesoft,

Morris Township, NJ). Otros programas útiles incluyen ROCS, ZAP, FRED, Vida y Szybki de Openeye Scientific Software (Santa Fe, NM); Maestro, Macromodel y Glide de Openeye Scientific Software (Santa Fe, NM); Maestro, Macromodel y Glide de Schrodinger, LLC (Portland, OR); MOE (Chemical Computing Group, Montreal, Quebec), Allegrow (Boston De Novo, Boston, MA), CNS (Brunger, *et al.*, *Acta Crystall, Sect. D* 54:905-921, 1997) y GOLD (Jones *et al.*, *J. Mol. Biol.* 245:43-53, 1995. Las coordenadas estructurales pueden utilizarse también para visualizar la estructura tridimensional de IL-13 humano usando MOLSCRIPT, RASTER3D o PYMOL (Kraulis, *J. Appl. Crystallogr.* 24:946-950, 1991; Bacon y Anderson, *J. Mol. Graph.* 6:219-220, 1998; DeLano, The PYMOL Molecular Graphics System (2002) DeLano Scientific, San Carlos, CA).

El agente puede, por ejemplo, seleccionarse al analizar una base de datos adecuada, puede diseñarse de nuevo al analizar las configuraciones estéricas y potenciales de carga de un IL-13 humano no unido o polipéptido IL-13Rα1 no unido, en conjunto con los sistemas de software adecuados, y/o puede diseñarse usando características de ligandos de citocina cocidos. El agente puede probarse para una capacidad para bloquear la unión de IL-13 a un polipéptido IL-4R, tal como IL-4Rα, o un polipéptido IL-Rα1. Un agente puede diseñarse para unión a IL-13 humano o al polipéptido IL-13Rα1 humano). El método puede usarse para diseñar o

seleccionar agonistas o antagonistas de IL-13 humano o un polipéptido IL-Rα1 humano. Un sistema de software puede diseñarse y/o implementarse para facilitar la búsqueda en bases de datos y/o la selección y diseño de agentes.

Una vez que el agente ha sido diseñado o identificado, puede ser obtenido o sintetizado y evaluado más para su efecto en la actividad IL-13 humano o en la actividad IL-13Rα1 humano. El agente puede evaluarse al ponerlo en contacto con IL-13 humano y ensayar la bioactividad de IL-13, o al ponerlo en contacto con un polipéptido IL-13Rα1 humano y ensayando la bioactividad de IL-13Rα1. Un método para evaluar el agente puede incluir un ensayo de actividad llevado a cabo *in vitro* o *in vivo*. Un ensayo de actividad puede ser un ensayo a base de células, por ejemplo. Dependiendo de la acción del agente en IL-13 humano o el polipéptido IL-13Rα1 humano, el agente puede ya sea actuar como un agonista o antagonista de la actividad de IL-13 o IL-13Rα1 humano. Un agonista causará que IL-13 humano o el polipéptido IL-13Rα1 tenga la misma o similar actividad, y un antagonista inhibirá una función normal de IL-13 humano o el polipéptido IL-13Rα1 humano. Un agente puede ponerse en contacto con el IL-13 humano en presencia de un anticuerpo anti-IL-13 (por ejemplo, mAb13.2 o mAb13.2 Fab) o un receptor de IL-13 humano (por ejemplo, un polipéptido IL-4R, tal como un polipéptido IL-4Rα humano, o un polipéptido IL-13R, tal

como un polipéptido IL-13Rα1 humano) para determinar si el agente inhibe o no la unión del anticuerpo o receptor al polipéptido IL-13 humano. En algunas modalidades, el agente inhibirá la unión de un tipo de receptor a IL-13 humano, pero no inhibirá la unión de otro tipo de receptor. Por ejemplo, un agente puede inhibir la unión de un polipéptido IL-13 humano a un polipéptido IL-4R humano (por ejemplo, la cadena IL-4Rα), pero no a un polipéptido IL-13Rα1 humano. Asimismo, un agente diferente puede inhibir la unión de IL-13 humano a un polipéptido IL-13Rα1 humano pero no a un polipéptido IL-4R humano. En otra modalidad, el agente inhibirá la unión del polipéptido IL-13 a un polipéptido IL-4R humano (por ejemplo, la cadena IL-4Rα) y a un polipéptido IL-13Rα1 humano. Puede cultivarse un cristal que contenga IL-13 humano unido al agente identificado y la estructura puede determinarse mediante cristalografía de rayos X. Un segundo agente puede diseñarse o identificarse con base en la interacción del primer agente con IL-13 humano. Varios análisis moleculares y técnicas de diseño racional de fármacos se describen además por ejemplo, en las patentes de E.U.A. Nos. 5,834,228, 5,939,528 y 5,856,116, así como en la solicitud de PCT No. PCT/US98/16879, publicada como WO 99/09148.

Aunque se han descrito ciertas modalidades, también se contemplan otras modalidades.

Como un ejemplo, aunque modalidades que incluyen

IL-13 humano, el fragmento mAb13.2 Fab, y un polipéptido IL-13Rα1 han sido descritas, más generalmente, cualquier polipéptido IL-13, cualquier polipéptido IL-13Rα1 y/o cualquier anticuerpo anti-IL-13 pueden usarse.

Como un ejemplo, aunque se han descrito modalidades que incluyen IL-13 humano y un polipéptido IL-13Rα1 humano, más generalmente cualquier polipéptido IL-13 y cualquier polipéptido IL-13Rα1 pueden usarse. Por ejemplo, un polipéptido IL-13 o un polipéptido IL-13Rα1 pueden originarse a partir de especies mamíferas o no mamíferas. Los mamíferos no humanos ejemplares incluyen, un primate no humano (tal como un mono o un simio), un ratón, rata, cabra, vaca, toro, cerdo, caballo, borrego, cerdo salvaje, nutria marina, gato o perro. Las especies no mamíferas ejemplares incluyen pollo, pavo, camarón, cocodrilo o pez.

Además, un polipéptido IL-13 o un polipéptido IL-13Rα1 pueden generalmente ser un polipéptido de longitud completa y maduro, incluyendo la secuencia de aminoácidos de longitud completa de cualquier isoforma o forma procesada de un polipéptido IL-13 o polipéptido IL-13Rα1. Una isoforma es cualquiera de varias formas múltiples de una proteína que difieren en su estructura primaria. IL-13 de longitud completa puede ser conocido como la forma precursora de la proteína. IL-13 de longitud completa tiene un sitio de corte de péptido de señal. El polipéptido de IL-13 puede ser el

polipéptido procesado, tal como después del corte del péptido de señal.

Un polipéptido IL-13 humano tiene típicamente por lo menos un sitio activo para interactuar con un polipéptido receptor (por ejemplo, un polipéptido IL-4R, un polipéptido IL-13α1). Un polipéptido IL-13 puede incluir tres sitios activos para interactuar con dos polipéptidos receptores diferentes. Un anticuerpo anti-IL-13 puede ser capaz de unirse a por lo menos uno de los sitios activos. En general, un sitio activo puede incluir un sitio de unión a polipéptido receptor, o un sitio de fosforilación, glicosilación, alquilación, acilación u otra modificación covalente. Un sitio activo puede incluir sitios de unión accesorios adyacentes o próximos al sitio real de unión que pudieran afectar la actividad después de su interacción con el ligando. Un sitio activo de un polipéptido IL-13 humano puede incluir aminoácidos de SEQ ID NO:4. Por ejemplo, un sitio activo de un polipéptido IL-13 humano puede incluir uno o más de los aminoácidos Ser7, Thr8, Ala9, Glu12, Leu48, Glu49, Ile52, Asn53, Arg65, Ser68, Gly69, Phe70, Cys71, Pro72, Hi73, Lys74 y Arg86, como se define por la secuencia de aminoácidos de SEQ ID NO:4 (figura 2B). En algunas modalidades, un agente puede interactuar a dentro de aproximadamente 2.0Å o menos (por ejemplo, alrededor de 1.5Å o menos, aproximadamente 1.0Å o menos) de uno o más

aminoácidos Glu49, Asn53, Gly69, Pro72, His73, Lys74 y Arg86 o IL-13, como se define por la secuencia de aminoácidos de SEQ ID NO:4. En una alternativa, un sitio activo de un polipéptido IL-13 humano puede incluir uno o más de los aminoácidos Arg11, Glu12, Leu13, Ile14, Glu15, Lys104, Lys105, Leu106, Phe107 y Arg108 como los definidos por la secuencia de aminoácidos de SEQ ID NO:4. En otra alternativa, un sitio activo de un polipéptido IL-13 humano puede incluir uno o más de los aminoácidos Thr88, Lys89, Ile90 y Glu91 como los definidos por la secuencia de aminoácidos de SEQ ID NO:4. Un polipéptido IL-13 humano puede incluir uno o más aminoácidos o todos los tres sitios activos descritos arriba.

Un polipéptido IL-13Rα1 humano tiene típicamente al menos un sitio activo para interactuar con un ligando de polipéptido (por ejemplo, un polipéptido IL-13 humano). Un anticuerpo anti-IL-13Rα1 puede ser capaz de unirse a por lo menos uno de los sitios activos. En general, un sitio activo puede incluir un sitio de unión a ligando o polipéptido, o un sitio de fosforilación, glicosilación, alquilación, acilación u otra modificación covalente. Un sitio activo puede incluir sitios de unión a accesorios adyacentes o próximos al sitio real de unión que pudieran afectar la actividad después de su interacción con el ligando. Un sitio activo de un polipéptido IL-13Rα1 humano puede incluir los aminoácidos de

SEQ ID NO:12. Por ejemplo, un sitio activo de un polipéptido IL-13Rα1 humano puede incluir uno o más de los residuos de aminoácido Ile254, Ser255, Arg256, Lys318, Cys320 y Tyr321 como los definidos por la secuencia de aminoácidos de SEQ ID NO:12. En una alternativa, un sitio activo de un polipéptido IL-13Rα1 humano puede incluir uno o más de los residuos de aminoácido Lys76, Lys77, Ile78 y Ala79 como los definidos por la secuencia de aminoácidos de SEQ ID NO:12. Un polipéptido IL-13Rα1 humano puede incluir uno o ambos de estos sitios activos.

La numeración de los aminoácidos de un polipéptido IL-13 humano, un polipéptido IL-13Rα1 humano y las cadenas pesada y ligera de un anticuerpo anti-IL-13, tal como mAb13.2 Fab, pueden ser diferentes que aquéllas descritas arriba, y pueden contener ciertas sustituciones de aminoácidos, adiciones o supresiones conservadoras que produzcan la misma estructura tridimensional que aquéllas definidas por la tabla 10, ± una rmsd para los átomos de estructura de base de menos de 1.5 Å, o por la tabla 11, ± una rmsd para átomos de estructura de base de menos de 1.5 Å, o por la tabla 12, ± una rmsd para átomos de estructura de base de menos de 1.5 Å. Por ejemplo, la numeración de un polipéptido IL-13 humano procesado puede ser diferente a la del descrito en la figura 2B, y la secuencia del IL-13 puede contener sustituciones de aminoácidos conservadoras, pero producir la misma estructura

que aquella definida por las coordenadas de la tabla 11 e ilustradas en la figura 3 o la misma estructura que la definida por las coordenadas de la tabla 12 e ilustradas en las figuras 15, 16 y 17. Los aminoácidos y sustituciones conservadoras correspondientes en otras isoformas o análogos se identifican fácilmente mediante inspección visual de las secuencias de aminoácidos relevantes o mediante el uso de programas de software de homología disponibles comercialmente (por ejemplo, MODELLAR, MSI, San Diego, CA).

Un análogo es un polipéptido que tiene sustituciones de aminoácido conservadoras. Las sustituciones conservadoras son sustituciones de aminoácido que son funcional o estructuralmente equivalentes al aminoácido sustituido. Una sustitución conservadora puede incluir el cambio de un aminoácido por otro con polaridad similar, o una disposición estérica, o pertenezca a la misma clase (por ejemplo, hidrofóbico, ácido o básico) que el aminoácido sustituido. Las sustituciones conservadoras incluyen sustituciones que tienen un efecto inconsecuente en la estructura tridimensional de un anticuerpo anti-IL-13 o un complejo polipéptido IL-13 humano/anticuerpo anti-IL-13 o un complejo polipéptido IL-13Rα1 humano/polipéptido IL-13 humano/anticuerpo anti-IL-13 con respecto a la identificación y diseño de agentes que interactúan con el polipéptido (por ejemplo, un polipéptido IL-13, un polipéptido IL-13Rα1), así

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como para análisis de reemplazo molecular y/o para modelación de homología.

Aunque se han descrito ejemplos en los cuales se deriva un anticuerpo anti-IL-13 de un ratón, más generalmente se puede usar cualquier anticuerpo anti-IL-13. Por ejemplo, un anticuerpo anti-IL-13 puede originarse de un humano, ratón, rata, hámster, conejo, cabra, caballo o pollo.

Como otro ejemplo, aunque se han descrito modalidades en las cuales se genera un anticuerpo anti-IL-13 mediante cierto método, también se pueden usar otros métodos. Por ejemplo, un anticuerpo anti-IL-13 puede generarse al preparar primero antisueros policlonales mediante inmunización de ratones BALB/c hembra con IL-13 humano nativo o recombinante. Los sueros pueden tamizarse para su unión a IL-13 humano mediante un ensayo tal como ELISA. Esplenocitos de un ratón que demuestre altos títulos de anticuerpo en suero pueden fusionarse con una línea de células de mieloma, tal como la línea de células de mieloma P3X63_AG8.653 (ATCC, Manassas, Va), y ponerse sobre placas en medios selectivos. Las fusiones pueden aislarse después de varias rondas de subclonación mediante la limitación de la dilución y las fusiones pueden tamizarse para la producción de anticuerpos que tengan una afinidad de unión a IL-13 humano. Un anticuerpo anti-IL-13 puede ser policlonal o monoclonal. Un anticuerpo que se una a IL-13 puede ser un fragmento de un

anticuerpo, tal como un fragmento Fab.

En general, los anticuerpos intactos, también conocidos como inmunoglobulinas, son proteínas glicosiladas tetraméricas compuestas de dos cadenas ligeras (L) de aproximadamente 25 kDa cada una y dos cadenas pesadas (H) de aproximadamente 50 kDa cada una. Cada cadena ligera está compuesta de un dominio variable (V) (VL) y un dominio constante (C) (CL) N-terminales. Cada cadena pesada está compuesta de un dominio V N-terminal (VH), tres o cuatro dominios C (CHs) y una región de pivote. El dominio CH más cercano a VH se designa como CH1. Los dominios VH y VL consisten en cuatro regiones de secuencia relativamente conservada llamadas regiones de armazón, las cuales forman un andamiaje para tres regiones de secuencia hipervariable (regiones de determinación de complementariedad, CDRs). Las CDRs contienen la mayoría de los residuos responsables de interacciones específicas con el antígeno. Las CDRs con referidas como CDR1, CDR2 y CDR3. En consecuencia, los constituyentes CDR en la cadena pesada son referidos como H1, H2 y H3, mientras que los constituyentes CDR en la cadena ligera son referidos como L1, L2 y L3 (véase tabla 4, por ejemplo). Las estructuras subunitarias y las configuraciones tridimensionales de diferentes clases de inmunoglobulina se conocen bien en la técnica. Para una revisión de la estructura de anticuerpos, véase Antibodies: A Laboratory

Manual, Cold Spring Harbor Laboratory, eds. Harlow *et al.* (1988). El fragmento de unión a antígeno más pequeño es el Fv (variable de fragmento), el cual consiste en los dominios VH y VL. El fragmento Fab (fragmento de unión a antígeno) consiste en los dominios VH-CH1 y VL-CL enlazados covalentemente por un enlace de disulfuro entre las regiones constantes.

En consecuencia, en un aspecto, esta solicitud incorpora un anticuerpo o un fragmento de un antígeno del mismo, que se une a y/o neutraliza, IL-13. El anticuerpo o fragmento del mismo también puede ser un anticuerpo humano, humanizado, quimérico o generado *in vitro*. En una modalidad, el anticuerpo anti-IL-13 o fragmento del mismo es un anticuerpo humanizado. El anticuerpo incluye una o más CDRs que tienen una conformación de estructura de base de una CDR descrita en la tabla 10 ± una desviación cuadrada promedio de raíz (RMSD) de no más de 1.5, 1.2, 1.1 ó 10 Ángstroms, tabla 11 ± una RMSD de no más de 1.5, 1.2, 1.1 ó 1.0 Ángstroms, o tabla 12 ± una RMSD de no más de 1.5, 1.2, 1.1 ó 1.0 Ángstroms. Por ejemplo, una, dos o tres de las CDRs del dominio variable de la cadena ligera (por ejemplo, particularmente CDR1, o en al menos dos CDRs, por ejemplo, CDR1 y CDR3, CDR1 y CDR2, o en todas las CDRs) tienen una RMSD de no más de 1.5, 1.2, 1.1 ó 1.0 Ángstroms, en relación a esas estructuras. En una modalidad, el anticuerpo o

fragmento de unión a antígeno del mismo incluye un dominio variable que, como un todo, tiene una conformación de estructura de base de una CDR descrita en la tabla 10 ± una desviación cuadrada promedio de raíz (RMSD) de no más de 1.5, 1.2, 1.1 ó 1.0 Ángstroms, tabla 11 ± una RMSD de no más de 1.5, 1.2, 1.1 ó 1.0 Ángstroms, o tabla 12 ± una RMSD de no más de 1.5, 1.2, 1.1 ó 1.0 Ángstroms. El dominio variable también puede ser al menos 70%, 80%, 85%, 87%, 90%, 92%, 93%, 95%, 96%, 975, 98% ó 99% idéntico a un anticuerpo descrito en la presente, por ejemplo, en la región de CDR y/o regiones de armazón. El anticuerpo puede usarse, por ejemplo, en un método para tratamiento descrito en la presente.

Los anticuerpos anti-IL-13 se describen, por ejemplo, en la Solicitud de Patente de E.U.A. Provisional No. 60/578,473, presentada el 9 de junio de 2004, Solicitud de Patente de E.U.A. Provisional No. 60/581,375 presentada el 22 de junio de 2004 y solicitud de Patente de E.U.A. No. _____[Caso: AM101493] (Kasain *et al.*), presentada en la misma fecha que en la presente, cada una de las cuales se incorpora a manera de referencia.

Los siguientes ejemplos son ilustrativos y no están destinados a limitar la invención.

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Ejemplos

Ejemplo 1

Generación y análisis funcional de mAb13.2

Para generar un anticuerpo que reconoce IL-13, se prepararon antisueros policlonales mediante inmunización de ratones BALB/c hembra con IL-13 humano recombinante (R&D Systems, Minneapolis, MN). Los sueros fueron tamizados para unión a IL-13 humano por ELISA. Esplenocitos de un ratón que demostraban altos títulos de anticuerpo en suero se fusionaron con la línea de células de mieloma P3X63_AG8.653 (ATCC, Manassas, Va), y se colocaron en medios selectivos. Las fusiones fueron aisladas con tres rondas de subclonación al limitar la dilución y se tamizaron para la producción de anticuerpos que hubieran tenido la afinidad de unión a IL-13 humano. Tres anticuerpos monoclonales fueron capaces de unirse a IL-13 y de neutralizar y/o inhibir su bioactividad. El anticuerpo monoclonal mAb13.2 (IgG1κ) fue el sujeto de análisis adicional.

Se llevaron a cabo varios ensayos para confirmar que el anticuerpo monoclonal de murino mAb13.2 se uniera con alta afinidad y especificidad a IL-13 humano. Primero, el análisis Biacore confirmó que mAb13.2 tuvo un rápido inicio de velocidad, lenta velocidad de salida y alta afinidad para unión a IL-13 humano (figura 4).

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Los ensayos ELISA demostraron que mAb13.2 se unió a todas las formas de IL-13 humano probadas, incluyendo IL-13 nativo derivado de células T de sangre de cordón (figura 5). Para llevar a cabo los ensayos con IL-13 humano recombinante, placas ELISA se recubrieron con un anticuerpo anti-FLAG M2. La unión de IL-13 humano marcado con FLAG recombinante se detectó con mAb13.2 biotinilado y estreptavidina-peroxidasa. Esta unión pudo competir con el IL-13 humano nativa aislada de células mononucleares de sangre de cordón inclinadas por TH2 y activadas por mitógenos y con IL-13 humano recombinante (figura 5). IL-13 de murino recombinante no pudo competir por unión con mAb13.2. mAb13.2 no marcado y mAb13.2 Fab no marcado también fueron capaces de competir para la unión al IL-13 marcado con FLAG con mAb13.2 biotinilado (figura 11A). El anticuerpo monoclonal no neutralizador específico para IL-13 mAb13.8 no pudo competir con la unión a mAb13.2 biotinilado.

La capacidad de mAb13.2 por neutralizar la bioactividad de IL-13 *in vitro* se confirmó usando un bioensayo TF1, monocitos de sangre periférica humana y células B de sangre periférica humana. En presencia de concentraciones subóptimas de IL-13, la proliferación de células de la línea de células TF1 eritroleucémicas humanas pueden hacerse dependientes de IL-13. La línea de células TF1 fue ayunada para citocina, y luego expuesta a una

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concentración subóptima (3 ng/mL) de IL-13 humano recombinante en presencia de concentraciones variables de mAb13.2 de ratón purificado o el inhibidor soluble rhuIL-13Rα2. Las células fueron incubadas durante tres días, y la incorporación de ^{3}H-timidina durante las cuatro horas finales se determinó mediante el conteo por centelleo líquido. A concentraciones subóptimas de IL-13 (3 ng/mL), mAb13.2 causó una inhibición dependiente de dosis de la proliferación de TF1 (figura 6 y figura 12A). La IC_{50} para este efecto, 250 pM, es comparable con la IC_{50} de rhuIL-13Rα2. El mAb13.2 Fab también inhibió la expresión de CD23 en PBMCs humanas.

Las PBMCs humanas responden a IL-13 o IL-4 al incrementar la expresión en superficie celular del receptor de IgE de baja afinidad (CD23) de una manera dependiente de dosis (véase figura 7A). Se usaron por lo tanto monocitos ($CD11b^{+}$) para confirmar la capacidad de mAb13.2 para neutralizar la bioactividad de IL-13. Los monocitos $CD11b^{+}$ fueron tratados durante 12 horas con 1 ng/mL de IL-13 (figura 7B) o IL-4 (figura 7C) humano recombinante en presencia de la concentración indicada de mAb13.2 de ratón purificado. Las células fueron después cosechadas y teñidas con anticuerpos anti-CD11b marcados con CyCromo y anticuerpos anti-CD23 marcados con PE. El marcaje se detectó mediante citometría de flujo. El mAb13.2 inhibió la expresión de CD23 inducida por IL-13 (figura 7B; véase también figura 12B), pero no

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inhibió la expresión de CD23 inducida por IL-4 (figura 7C).

Los efectos de mAb13.2 también se probaron en un modelo de producción de IgE inducida por IL-13 por células B de sangre periférica humana. En respuesta a IL-13 y al mitógeno de células T, fitohemaglutinina (PHA), las células B humanas sufren una recombinación por cambio de isotipo Ig a IgE, dando como resultado niveles de IgE más altos en cultivo. Este efecto se puede observar como una frecuencia incrementada de células B productoras de IgE. Para examinar el efecto de mAb13.2 en la producción de IgE dependiente de IL-13 en células B, PBMCs de un donador saludable se cultivaron en pocillos de microtitulación en presencia de PBMC irradiadas autólogas como alimentadores, y se estimularon con PHA + IL-13. Luego de 3 semanas, cada pocillo fue ensayado por IgE mediante ELISA. PHA + IL-13 incrementaron la frecuencia de clones de células B productores de IgE. Este efecto fue inhibido por mAb13.2, pero no por mAb13.8 (se une a IL-13 pero no neutraliza), o por IgG de ratón irrelevante, mAb13.2 bloqueó de manera eficiente este efecto de IL-13 en células B cultivadas (figura 8).

Finalmente, la capacidad de mAb13.2 para bloquear una respuesta celular temprana a IL-13 fue probada al examinar los efectos en la fosforilación del transductor de señal y activador de transcripción (STAT) 6. Después de la

interacción de IL-13 con su receptor de superficie celular, STAT6 dimeriza, se vuelve fosforilado y se transloca del citoplasma al núcleo, en donde activa la transcripción de los genes responsivos a citocina (Murata *et al., J. Biol.. Chem.* 270:30829-36, 1995). Los anticuerpos específicos contra STAT6 fosforilado pueden detectar esta activación mediante Western blot o citometría de flujo a los 30 minutos de exposición a IL-13. Para probar el efecto de mAb13.2 en la fosforilación de STAT6 dependiente de IL-13, células de la línea de células epiteliales humanas HT-29 fueron tratadas con la concentración indicada de IL-13 durante 30 minutos a 37°C. Fosfo-STAT6 fue detectado a lisados de células mediante Wester blot (figura 9A) o mediante citometría de flujo (figuras 9B y 9C). En el experimento ilustrado en la figura 9B, las células fueron tratadas con una concentración saturadora de IL-13 durante 30 minutos a 37°C y después fijadas, permeabilizadas y teñidas con mAb marcado con Alexa-Fluor 488 contra fosfo-STAT6. en el experimento ilustrado en la figura 9C, las células fueron tratadas con una concentración subóptima de IL-13 en presencia o ausencia de un anticuerpo, fijadas y teñidas como se describió arriba. Los resultados de la citometría de flujo revelaron que mAb13.2 bloqueó la fosforilación de STAT6, mientras que mAb13.8 y el control IgG1 de ratón no tuvo efecto alguno.

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Ejemplo 2

Anticuerpo mAb13.2 monoclonal de murino neutraliza la bioactividad de IL-13 *in vivo*

La capacidad de mAb13.2 de ratón para neutralizar la actividad de IL-13 *in vivo* se probó usando un modelo de inflamación de vía aérea inducida por antígenos en monos Cinomólogos naturalmente alérgicos a *Ascaris suum*. En este modelo, el ataque de un mono alérgico con el antígeno de *Ascaris suum* da como resultado un influjo de células inflamatorias, especialmente eosinófilos, en las vías aéreas. Para probar la capacidad de mAb13.2 para evitar este influjo de células, el anticuerpo fue administrado 24 horas antes del ataque con *Ascaris suum*. El día del ataque, una muestra de lavado de línea base se tomó del pulmón izquierdo. El antígeno fue después instilado intratraquealmente en el pulmón derecho. Veinticuatro horas más tarde, el pulmón derecho fue lavado, y el fluido de lavado alveolar bronquial (BAL) proveniente de animales tratados intravenosamente con 8 mg/kg de ascites purifcados por mAb13.2 se comparó con fluido BAL de animales no tratados. Los conteos de eosinófilos se incrementaron en 4 de 5 animales no tratados después del ataque, en comparación con 1 a 6 animales tratados con mAb13.2 (figura 10). Los eosinófilos de BAL porcentuales se incrementaron significativamente para el grupo no tratado ($p<0.02$), pero no para el grupo tratado con anticuerpos.

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Estos resultados confirmaron que mAb13.2 evita efectivamente la eosinofilia de vías aéreas en animales alérgicos atacados con un alérgeno.

La vida media en suero promedio de mAb13.2 de ratón fue menos de una semana en los monos. En el punto de tiempo de 3 meses, cuando todos los rastros de mAb13.2 pudieron haber sido eliminados del suero, los animales tratados con mAb13.2 fueron vueltos a atacar con *Ascaris suum* para confirmar la cantidad de respuesta a *Ascaris* de esos individuos. Dos de seis monos en el grupo tratado se encontró que no respondían.

Ejemplo 3

El anticuerpo monoclonal de murino mAb13.2 se une a una región de IL-13 que normalmente se une a IL-4Rα

La bioactividad de IL-13 es mediada a través de un complejo receptor que consiste en las cadenas IL-13Rα1 e IL-4Rα. La citocina sufre primero una interacción de afinidad relativamente baja con IL-13Rα1 sobre la superficie de células. Este complejo recluta después IL-4Rα para formar el receptor de alta afinidad (Zurawski *et al.*, *EMBO J.* 12:2663, 1993; Zurawski *et al.*, *J. Biol. Chem.* 270:23869, 1995). La señalización a través de la cadena IL-4Rα incluye la fosforilación de STAT6, la cual puede monitorearse como una de las respuestas celulares más tempranas a IL-13 (Murata et

al., J. Biol. Chem. 270:23869, 1995). Varios enfoques, tales como el mapeo de epítopes, cristalografía y rayos X y análisis Biacore adicional, se usaron para elucidar la interacción entre anticuerpo mAb13.2 de murino e IL-13 humano, y determinar además la base para los efectos neutralizadores de IL-13 de este anticuerpo.

El mapeo de epítopes y el análisis de cristalografía de rayos X indicaron que mAb13.2 se une a la región C-terminal de la hélice C de IL-13, es decir, la región a unión de IL-4R (véase abajo). Para confirmar este análisis, la interacción entre mAb13.2 e IL-13 se analizó con una pastilla Biacore. Este análisis se llevó a cabo en varios formatos. Primero, IL-4R se unió a la pastilla Biacore, y un complejo de IL-13 pre-unido a IL-13Rα1 fue hecho fluir sobre la pastilla. En ausencia de mAb13.2, se pudo demostrar la formación de un complejo tri-molecular. Sin embargo, la adición de mAb13.2 a la mezcla de IL-13 pre-unido a IL-13Rα1 evitó la unión a IL-4R en la pastilla. Segundo, mAb13.2 fue inmovilizado en la pastilla y el IL-13 unido se añadió en fase de solución. Aunque se encontró que IL-13Rα1 interactuaba con el IL-13 unido, no se detectó alguna interacción de IL-4R con IL-13 unido. Tercero, se demostró que mAb13.2 puede unirse a IL-13 que se había unido a IL-13Rα1-Fc o IL-13Rα1 inmovilizado sobre la pastilla. Estas observaciones indican que mAb13.2 no inhibe la

interacción de IL-13 con IL-13Rα1 sino que rompe la interacción de IL-13Rα1 con IL-4Rα. Se cree que esta ruptura evita la formación del complejo de señalización de IL-13. Estas observaciones proporcionaron un modelo para la actividad de neutralización de este anticuerpo.

La demostración *in vitro* de un complejo de mAb13.2 con IL-13 e IL-13Rα1 sugiere que mAb13.2 pudiera ser unido potencialmente a IL-13 asociado a receptor en la superficie de células. Para determinar si mAb13.2 unido a células pudiera detectarse bajo condiciones de receptor unido a IL-13 saturante, la línea de células epiteliales humanas HT-29 fue cargada con IL-13 a 4°C y probada para unión a anticuerpo. Ningún mAb unido a células pudo detectarse mediante citometría de flujo. Esta observación, junto con la demostración de que mAb13.2 es un potente neutralizador de la bioactividad de IL-13, indicaron que el funcionamiento normal del receptor de IL-13 es roto por mAb13.2.

Ejemplo 4

Estructura cristalina de un anticuerpo anti-IL-13 y fragmento mAb13.2 Fab

El anticuerpo monoclonal mAb13.2 de ascites de ratón fue purificado usando la columna de afinidad de proteína A. Los ascites de ratón se diluyeron 2X con regulador de pH de unión de proteína A (50 mM de Tris-HCl,

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500 mM de NaCl, pH 8.0) y se filtraron a través de una unidad de filtro de 0.2 mm. La solución filtrada se aplicó a una columna Poros Protein A (Applied Biosystems, Framingham, MA) equilibrada con el regulador de pH de unión a 4°C. La columna fue lavada con el regulador de pH de unión, y la IgG fue eluida usando 100 mM de Glicina (pH 3.0). la IgG diluida se neutralizó inmediatamente con 1M Tris-HCl a pH 8.0.

El fragmento Fab se preparó al digerir la IgG monoclonal de IL-13 con papaína activada (Sigma, San Luis, MO). La papaína fue activada al diluir la solución de enzimas de abastecimiento con el regulador de pH de digestión (50 mM de Tris-HCl, 50 mM de NaCl, 20 mM de EDTA y 20 mM de cisteína, pH 7.5) sobre hielo para dar una concentración final de papaína de 1 mg/ml. El corte de IgG se llevó a cabo mediante la incubación con papaína activada a una relación de 100:1 p/p en regulador de pH de digestión de papaína durante 7-8 horas a 37°C. La reacción se detuvo mediante diálisis en 50 mM de Tris-HCl (pH 7.5) durante la noche a 4°C. La solución dializada se cargó sobre una columna Poros HS/Protein equilibrada con 50 mM de Tris-HCl (pH 7.5) a 4°C para remover la papaína y el fragmento Fc. El paso de flujo a través de las columnas en línea que contenían el fragmento Fab se cargó después sobre un columna de hidroxilapatita (Bio-Rad, Hercules, CA) equilibrada con fosfato de sodio 1 mM y Tris-HCl 20 mM, pH 7.5, y se eluyó con una gradiente de

fosfato de sodio 1 mM a 125 mM a 25°C. La solución de fragmento Fab eluida se dializó durante la noche en 50 mM de Tris-HCl (pH 8.0) a 4°C. Después de la diálisis, la solución se cargó sobre una columna Poros HQ equilibrada con 50 mM de Tris-HCl (pH 8.0). El paso de flujo se recogió y sulfato de amonio se ajustó a una concentración final de 1.5 M antes de cargar sobre una columna de Polipropil Aspartamida (Nest Group, Southborough, MA). El fragmento Fab fue eluido de la columna con una gradiente de sulfato de amonio 1.5 a 0M 25°C. La proteína fue dializada en 50 mM de Tris-HCl (pH 8.0) a 4°C.

El anticuerpo mAb13.2 y fragmento mAb13.2 Fab aislados se probaron para su capacidad para inhibir la bioactividad de IL-13. En un ensayo, mAb13.2 y fragmento mAb13.2 Fab purificados se probaron para su capacidad para competir para la unión con mAb13.2 biotinilado en un ensayo de ELISA. Placas de ELISA se recubrieron con un anticuerpo anti-FLAG M2. La unión de IL-13 humano FLAG se detectó con mAb13.2 biotinilado y estreptavidina-peroxidasa. Tanto el anticuerpo intacto como el fragmento Fab fueron capaces de competir por la unión, aunque el anticuerpo no neutralizador específico de IL-13 mAb13.8 no pudo competir por la unión (figuras 11A y 11B).

En otros ensayos, mAb13.2 y fragmento mAb13.2 Fab purificados se probaron para verificar su capacidad para

inhibir la proliferación de células TF1 dependiente de IL-13 y la expresión de CD23 dependiente de IL-13 en PBMCs. Células TF1 fueron incubadas con 3 ng/mL de IL-13 humano recombinante como se describió en el ejemplo 1. Las células se trataron con concentraciones cada vez más altas de mAb13.2 o mAb13.2 Fab, y la proliferación celular se monitoreó como se describe. Tanto el anticuerpo intacto como el fragmento Fab inhibieron la proliferación de células TF1 dependiente de IL-13 (figura 12A). Para probar el efecto de las proteínas aisladas en la expresión de CD23, PBMCs fueron incubadas con 1 ng/mL de IL-13 humano recombinante como se describe en el ejemplo 1. Los monocitos fueron tratados con concentraciones cada vez más altas de mAb13.2 o mAb13.2 Fab, y la expresión de CD23 fue monitoreada mediante citometría de flujo como se describió arriba. El anticuerpo intacto purificado y el fragmento Fab purificado fueron cada uno capaces de inhibir la expresión de CD23 dependiente de IL-13 (figura 12B).

Para la cristalización, mAb13.2 Fab purificado se preparó a una concentración de 12.6 mg/mL en una solución de 50 mM de Tris (pH 8.0) y 50 mM de NaCl. Un microlitro de solución de proteínas se mezcló con 1 μl de solución de cristalización (20% de PEG 3350, 200 mM de K_2SO_4) (Hampton Research, Aliso Viejo, CA), y los cristales se formaron a aproximadamente 18°C por medio del método de difusión de vapor de caída.

Los datos de los cristales para el fragmento mAb13.2 Fab se recabaron en la línea de base 5.0.2 en el Advanced Light Source (ALS) (Berkley, CA) usando un detector ADSC Quantum-4 CCD. Un solo cristal, vitrificado a -180°C, se usó para cada conjunto de datos. Los datos fueron procesados usando DENZO y Scalepack (Otwinowski y Minor, *Methods Enzymol*, 276:307-326, 1997) y las estadísticas de la recolección de datos y refinación de datos se muestran en las tablas 1 y 2 abajo, respectivamente.

Tabla 1

Estadísticas para la recolección de datos y determinación de fases

Recolección de datos	mAb13.2 Fab	mAb13.2/IL-13 Fab
Sistema de cristal	Ortorrómbico	Cúbico
Grupo espacial	$P2_12_12_1$	$P2_13$
Dimensiones celulares unitarias	A=54.442, b=97.961, c=108.469, α=β=γ=90.0°	A=b=c=125.261, α=β=γ=90.0°
Temperatura de recolección de datos	-180°C	-180°C
Número de cristales	1	1
Fuente de radiación	ALS, Berkeley, CA	ALS, Berkeley, CA
Longitud de onda (Å)	50-2.8 Å	λ=1.0 Å
Alcance de resolución (Å)	50-2.8 Å	1.8 Å
Resolución máxima (Å)	2.8 Å	1.8 Å
R_{merge}[a] (%)	8.2% (38.4%)	6.7% (48.6%)
% completo	100% (100%)	99.9% (99.0%)
Reflexiones totales	98.254	561,539
Reflexiones únicas	14,903	57,656
I/σ(I)	23.3 (4.8)	26.6 (2.8)

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[a] $R_{merge}=\Sigma|I_h-\langle I_h\rangle|/\Sigma I_h$, en donde $\langle I_h\rangle$ es la intensidad promedio sobre equivalentes de simetría. Los números en paréntesis reflejan estadísticas para la última cubierta.

Tabla 2

Estadísticas de refinación de estructura

Recolección de datos	mAb13.2 Fab	mAb13.2 Fab/IL-13
Modelo para reemplazo molecular	2E8 Fab (12E8.pdb)	mAb13.2 Fab; estructura en sol. de IL-13[b]
Resolución Máxima (Å)	2.8 Å	1.8 Å
R_{work}[a] (%)	25.9%	20.3%
R_{free} (%)	30.7%	23.5%

[a] $R_{work}=\Sigma||F_{obs}|-|F_{calc}||/\Sigma|$, R_{work}, es equivalente a R_{work}, pero calculado para un conjunto seleccionado aleatoriamente entre 5% de reflejos que se omiten del proceso de refinación.

[b]Moy *et al.*, *J. Mol. Biol.* 310:219-230, 2001.

La estructura de mAb13.2 Fab fue resuelta mediante el reemplazo molecular usando el programa AMORE (Navaza, Acta

Crystallogr. A50:157-163, 1994). La estructura del fragmento de anticuerpo 2E8 Fab monoclonal (PDB código 12E8) se usó como la sonda. Antes de la refinación, 5% de los datos fueron seleccionados aleatoriamente y designados como un conjunto de prueba R_{free} para monitorear el progreso de la refinación. La estructura del mAb13.2 Fab fue después reconstruida dentro de QUANTA (Accelrys, San Diego, CA) utilizando una serie de mapas de omisión. Luego de seis ciclos de refinación con CNS (Brunger *et al.*, *Acta Crystallogr.* D54:905-921, 1998) y reconstrucción usando QUANTA, la refinación convergió con un modelo que contenía las moléculas de mAb13.2 Fab y 41 moléculas de agua a una R_{cryst} de 25.9% y una R_{cryst} de 30.7%. las estadísticas de refinación de estructura se muestran en la tabla 2. Las coordenadas de la estructura de cristal se muestran en la tabla 10.

Ejemplo 5

Estructura cristalina del complejo mAb13.2 Fab/IL-13

IL-13 recombinante (No. de Registro en Swiss-Prot P35225) y mAb13.2 Fab se purificaron para cristalización. IL-13 recombinante se purificó como sigue. Se usó la cepa GI934 de *E. coli* K12 se usó para la expresión de IL-13 humano. GI934 es un derivado *ilv*G de GI724 (La Vallie *et al.*, *Bio/Technology* 11:187-193, 1993) que contiene

supresiones específicas en las dos proteasas de *E. coli* (*ompT* y *ompP*. Específicamente, esta cepa contiene el gen represor de bacteriófago 1 (cI) integrado establemente en el locus ampC cromosómico. El gen cI es regulado transcripcionalmente por un promotor trp de *Salmonella typhimurium* sintético. El vector de expresión de *E. coli* pAL-981, un derivado de pAL-781 (Collins-Racie, *et al.*, *Bio/Technology* 13:982-987, 1995), se usó como la base para la construcción de un vector de expresión de IL-13 humano.

Un ADNc del gen IL-13 humano se generó a partir de dúplex de oligonucleótidos sintéticos diseñados para poseer cambios silenciosos a partir de ADNc de IL-13 humano (Número de registro NM_002188) que fue optimizado para el uso de codones de *E. coli* y contenido de AT incrementado en el extremo 5' del gen. Tres conjuntos de dúplex complementarios de oligonucleótidos sintéticos que correspondían a los aminoácidos Gly21 a Asn132 del aminoácido de IL-13 humano (SEQ ID NO:3) (figura 2A) se usaron para construir la región madura de IL-13 humano, la cual es la secuencia de aminoácidos de IL-13 procesado (SEQ ID NO:4). Los oligonucleótidos complementarios optimizados por *E. coli* del dúplex 1 fueron

5'-

TATGGGTCCAGTTCCACCATCTACTGCTCTGCGTGAACTGATTGAAGAACTGGTTAACATC

ACCCAGAACCAGAAAGCTCCGCTGTGTAACGGTTCCATGGTTTGGTCCATCAACCTG-3'

(SEQ ID NO:6) con complemento

5'CAGCCGGTCAGGTTGATGGACCAAACCATGGAACCGTTACACAGCGGAGCTTTCTGGTT CTGGGTGATGTTAACCAGTTCTTCAATCAGTTCACGCAGAGCAGTAGATGGTGGAACTGGA CCCA-3 (SEQ ID NO:7); dúplex 2 fueron

5'-

ACCGCTGGTATGTACTGTGCAGCTCTGGAATCCCTGATCAACGTTTCTGGTTGCTCTGCTA TCGAAAAAACCCAGCGTATGCTGTCTGGTTTCTGCCCGCACAAAGTTTCCGCTGGTCAG-

3' (SEQ ID NO:8) con complemento

5'-

GAGGAGAACTGACCAGCGGAAACTTTGTGCGGGCAGAAACCAGACAGCATACGCTGGGTTT TTTCGATAGCAGAGCAACCAGAAACGTTGATCAGGGATTCCAGAGCTGCACAGTACATC-

3' (SEQ ID NO:9); y dúplex 3 fueron

5'-

TTCTCCTCTCTGCACGTTCGTGACACCAAAATCGAAGTTGCTCAGTTCGTAAAAGACCTGC TGCTGCACCTGAAAAAACTGTTCCGTGAAGGTCGTTTCAACTAATAAT-3' (SEQ ID NO:10) con complemento

5'-

CTAGATTATTAGTTGAAACGACCTTCACGGAACAGTTTTTTCAGGTGCAGCAGCAGGTCTT TTACGAACTGAGCAACTTCGATTTTGGTGTCACGAACGTGCAGA-3' (SEQ ID NO:11).

La hebra complementaria (inferior) del primero y segundo dúplex y la hebra superior del segundo y tercero dúplex se fosforilaron independientemente. Las hebras complementarias fueron combinadas, y cada mezcla de dúplex se calentó a 90° y luego se enfrió lentamente para permitir la

fijación de los dúplex. El primero y último dúplex codificaron respectivamente para las endonucleasas de restricción NdeI y XbaI para permitir su clonación en un vector de expresión digerido con NdeI, XbaI y purificado con gel pAL-981. Todas las digestiones de restricción, fosforilación enzimática de oligonucleótidos, aislamientos y ligación entre fragmentos de ADN se llevaron a cabo como se describe en Sambrook *et al.* 1989. "Molecular Cloning, a Laboratory Manual, segunda edición", Cold Spring Harbor Laboratory Press, Cold Spring Harbor, Nueva York. Las mezclas de ligación se transformaron en GI934 electrocompetente como se describe (La Vallie *et al.*, *Methods Mot Biol.* 205:119-140, 2003). La ligación de los tres conjuntos de dúplex de oligonucleótidos en pAL-981 creó el plásmido pALHIL13-981. Todos los oligonucleótidos sintéticos fueron confirmados en secuencia después de clonarlos en el vector de expresión.

El plásmido resultante pALHIL13-981 se transformó en GI934. La temperatura de crecimiento óptima del cultivo para la producción de IL-13 humano a partir del plásmido pALHIL13-981 se determinó empíricamente. El medio fermentador consistía en 1% de casaminoácidos, 1.75% p/v de glucosa, 50 mM de KH_2PO_4, 15 mM de $(NH_4)_2SO_4$, 30 mM de Na_3.citrato.$2H_2O$, 20 mM de $MgSO_4$, 100 µg/ml de ampicilina, metales residuales DM (300 µM de $FeCl_3$, 29 µM de $ZnCl_3$, 36 µM

de $CoCl_2$, 25 μM de Na_2MoO_4, 20 μM de $CaCl_2$, 22 μM de $CuCl_2$, 24 μM de H_3BO_3), y fue ajustado a pH 7 con NH_4OH. Un fermentador de 10 L fue inoculado hasta un A_{550} 0.00005 con un cultivo fresco de GI934 que contenía pALHIL13-981 cultivado en medio fermentador a 30°C. El cultivo del fermentador se cultivó a 30°C a A_{550} de 1.2, luego la temperatura se ajustó a 37°C, y el cultivo se dejó crecer a A_{550} de 7.5. La inducción de la síntesis de proteínas a partir del promotor pL fue iniciada y el cultivo con la adición de triptófano a 500 μg/ml. El cultivo se llevó a cabo a 37°C durante 4.25 horas antes de cosechar las células por centrifugación. La secuencia del vector de expresión se muestra en la figura 13 (SEQ ID NO:5).

La proteína fue esencialmente completamente insoluble. Las células fueron rotas con un microfluidizador y el IL-13 insoluble se recogió y se disolvió a aproximadamente 2 mg/mL en 50 mM Ches (pH 9), 6 M de guanidina-HCl, 1 mM de EDTA, 20 mM de DTT. La solución se diluyó 20 veces en 50 mM de Ches (pH 9), guanidina-HCl 3 M, NaCl 100 mM, 1 mM de glutationa oxidada, y se dializó dos veces contra diez volúmenes de 20 mM de Mes (pH 6). Después de la aclaración por centrifugación, IL-13 se adsorbió a SP-Sefarosa y se eluyó con una gradiente de NaCl en regulador de pH Mes. La purificación final fue mediante cromatografía de exclusión de tamaño en 40 mM de fosfato de sodio, 40 mM de NaCl en Superdex 75.

El mAb13.2 Fab se purificó como se describió en el ejemplo 4.

El complejo Fab:IL-13 se preparó al combinar los dos en una relación molar de aproximadamente 1:1. IL-13 (50 μM en 40 mM de MES y 40 mM de NaCl, pH 6.0) y mAb13.2 Fab (50 μM en 50 mM de Tris.HCl, pH 8.0) se mezclaron juntos para dar una concentración de complejo final de 50 μM. El complejo se purificó más por medio de una columna de exclusión de tamaño Superdex 75 (Amersham Biosciences, Piscataway, NJ) equilibrada con 50 mM de Tris-HCl y 300 mM de NaCl, pH 8.0, a 25°C. El complejo purificado se dializó en 50 mM de Tris-HCl y 50 mM de NaCl, pH 8.0, antes de comenzar la cristalización.

Para la cristalización, complejo mAb13.2 Fab/IL-13 purificado se preparó a una concentración de 11.3 mg/mL en una solución 50 mM de Tris (pH 8.0) y 50 mM NaCl. Un microlitro de solución de proteínas se mezcló con 1 μl de solución de cristalización (20% de PEG 3350, 50 mM de ZnOAc) (Hampton Research, Aliso Viejo, CA). Los cristales formados a 18°C mediante difusión por vapor mediante el método de caída colgante.

Los datos del cristal del complejo mAb13.2 Fab/IL-13 se recabaron en la línea 5.0.2 en el ALS (Berkley, CA) usando un detector ADSC Quantum-4 CCD. Un solo cristal, vitrificado a -180°C, se usó para el conjunto de datos. Los datos fueron procesados usando DENZO y Scalepack (Otwinowski

and Minor, *Methods Enzymol.* 276:307-326, 1997). Las estadísticas de la refinación de datos se muestran en la tabla 2. Las coordenadas de la estructura cristalina se muestran en la tabla 11.

Los cristales del complejo mAb13.2Fab/IL-13 binario difractaron a 1.8 Å usando radiación de sincrotrones. La estructura del complejo fue resuelta mediante reemplazo molecular usando el programa AMORE, y usando la estructura de cristal del mAb13.2 Fab (descrito en el ejemplo 4) como la sonda. Antes de la refinación, 5% de los datos se seleccionaron y designaron aleatoriamente como una prueba R_{free} para monitorear el progreso de la refinación. Esta estructura del mAb13.2 Fab fue después reconstruida dentro de QUANTA usando una serie de mapas de omisión. Durante este proceso, la densidad adicional se observó cerca de las regiones hipervariables, y estas regiones fueron afiladas después de cada ciclo de reconstrucción. Después de que el fragmento Fab había sido reconstruido, la estructura de RMN de IL-13 (Moy *et al.*, *J. Mol. Biol.* 310:219-230, 2001) fue girada en la densidad adyacente a las regiones hipervariables. Después de tres ciclos de refinación con CNS (Accelrys, San Diego, CA) y de reconstrucción dentro de QUANTA, la refinación convergió con un modelo que contenía una molécula del mAb13.2 Fab, una molécula de IL-13, una molécula de acetato, tres iones de zinc y 465 moléculas de

agua a una R_{cryst} de 20.3% y R_{free} de 23.5%. Las estadísticas de refinación se muestran en la tabla 2.

En el complejo mAb13.2/IL-13 cristalino, residuos 1-211 de la cadena ligera de Fab fueron visibles, mientras que los residuos 212, 213 y 214 no fueron observados en la densidad. Para la cadena pesada, los residuos 1-127 y 133-210 se modelaron en la densidad, y no se observó densidad alguna para los residuos 128 a 132. Para IL-13, los residuos 7-21, 26-78 y 81-109 fueron visibles y los residuos 1-6, 22-25, 79 y 80 fueron desordenados. Varios residuos modelados como residuos más pequeños debido a experimentos de rayos X de densidad electrónica inadecuada (tabla 5).

Hubieron tres moléculas de zinc a partir del regulador de pH de cristalización que se encontró unidas en esta estructura. Ninguna de ellas estuvieron implicadas en interacciones entre las moléculas IL-13 y Fab. Dos de las moléculas de zinc estuvieron implicadas en contactos entre moléculas en la unidad asimétrica y copias relacionadas por simetría de las proteínas, y de esta manera fueron importantes para la cristalización de este complejo. Zinc 1 fue coordinado a los residuos de cadena ligera de Fab Glu27 y Glu97, y los residuos Glu189 y His193 de una copia relacionada por simetría de la cadena ligera (los aminoácidos fueron numerados de acuerdo con SEQ ID NO:1 (figura 1A)). Zinc2 fue coordinado a residuos de IL-13 His84 y Asp87, y

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residuos Asp98 y His102 de una copia relacionada por simetría de IL-13. Zinc3 fue coordinado a residuos de IL-13 Glu12 y Glu15 con moléculas de agua como otros ligandos (aminoácidos numerados de acuerdo con SEQ ID NO:4 (figura 2B)).

Los residuos de IL-13 que interactúan con el fragmento mAb13.2 Fab fueron localizados en el extremo C-terminal de la hélice C (residuos 68-74). La figura 13 ilustra la interacción de la hélice alfa C de IL-13 con las asas de CDR del anticuerpo. Las interacciones por enlaces de hidrógeno se observaron que existían entre los residuos de Fab e IL-13 Glu49, Asn53, Gly69, Pro72, His73, Lys74 y Arg86. La punta N-terminal de la hélice A estuvo dentro de las distancias de van der Waals del fragmento Fab. Estas interacciones se resumen en las tablas 3 y 4.

Tabla 3

Interacciones de enlace H entre IL-13 y Fab 13.2

IL-13[a]			Fab 13.2				
Residuo		Átomo	Residuo	Chothia[b]	SEQ ID[c]	Átomo	Distancia
Glu	49I	OE1	Asn	30AL	31L	ND2	2.87Å
Glu	49I	OE2	Tyr	98H	101H	OH	2.69
Glu	49I	OE2	Tyr	99H	102H	OH	2.54
Asn	531	OD1	Lys	30DL	34L	NZ	2.74
Gly	69I	O	Ser	53H	53H	N	2.91
Pro	72I	O	Tyr	98H	101H	N	3.10
His	73I	ND1	Asp	94L	98L	OD1	2.87
His	73I	NE2	Ser	50H	50H	OG	2.75
Lys	74I	NZ	Asn	30AL	31L	OD1	2.95
Lys	741	NZ	Asn	92L	96L	OD1	2.61
Arg	86I	NH1	Tyr	30BL	32L	OH	3.16
Arg	86I	NH2	Tyr	30BL	32L	OH	2.93

[a] Residuos de aminoácido son numerados de acuerdo con la forma procesada de IL-13 (SEQ ID NO:4). "I" indica aminoácido de IL-13.

[b] Los residuos de aminoácido corresponden a SEQ ID NO:1 (para residuos de cadena ligera, "L") o SEQ ID NO:2 (para residuos de cadena pesada, "H"), y son numerados de acuerdo con el sistema de numeración Chothia (Al-Lazikani *et al., Jour. Mol. Biol.* 273:927-948, 1997).

[c] Los residuos de aminoácido son numerados de acuerdo con la numeración de SEQ ID NO:1 (para residuos de cadena ligera, "L") o SEQ ID NO:2 (para residuos de cadena pesada, "H").

Tabla 4

Interacciones tipo van der Waals entre IL-13 y Fab 13.2

Residuo de IL-13[a]		Residuo de Fab 13.2	Chothia[b]	SEQ ID[c]	CDR
Ser	7I	Ile	30H	30H	CDR-H1
Thr	8I	Ile	30H	30H	CDR-H1
Ala	9I	Ile	30H	30H	CDR-H1
Ala	9I	Ser	53H	53H	CDR-H2
Glu	12I	Ile	30H	30H	CDR-H1
Glu	12I	Ser	31H	31H	CDR-H1
Leu	48I	Tyr	98H	101H	CDR-H3
Glu	49I	Tyr	98H	101H	CDR-H3
Glu	49I	Asn	30AL	31L	CDR-L1

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Residuo de IL-13[a]		Residuo de Fab 13.2	Chothia[b]	SEQ ID[c]	CDR
Glu	49I	Tyr	99H	102H	CDR-H3
Ile	52I	Tyr	99H	102H	CDR-H3
Ile	52I	Tyr	99H	102H	CDR-H3
Ile	52I	Tyr	99H	102H	CDR-H3
Ile	52I	Arg	50L	54L	CDR-L2
Ile	52I	Tyr	99H	102H	CDR-H3
Ile	52I	Lys	30DL	34L	CDR-L1
Asn	53I	Lys	30DL	34L	CDR-L1
Asn	53I	Lys	30DL	34L	CDR-L1
Asn	53I	Lys	30DL	34L	CDR-L1
Arg	65I	Phe	100H	103H	CDR-H3
Arg	65I	Asp	96H	99H	CDR-H3
Met	66I	Ser	31H	31H	CDR-H1
Ser	68I	Asp	96H	99H	CDR-H3
Ser	68I	Phe	100H	103H	CDR-H3
Gly	69I	Ser	31H	31H	CDR-H1
Gly	69I	Ala	33H	33H	CDR-H1
Gly	69I	Ser	53H	53H	CDR-H2
Gly	69I	Ser	52H	52H	CDR-H2
Phe	70I	Ser	53H	53H	CDR-H2
Phe	70I	Ser	52H	52H	CDR-H2
Cys	71I	Tyr	98H	101H	CDR-H3
Pro	72I	Ala	33H	33H	CDR-H1
Pro	72I	Leu	95H	98H	CDR-H3
Pro	72I	Ser	52H	52H	CDR-H2
Pro	72I	Tyr	58H	58H	CDR-H2
Pro	52I	Tyr	98H	101H	CDR-H3

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Residuo de IL-13[a]		Residuo de Fab 13.2	Chothia[b]	SEQ ID[c]	CDR
Pro	72I	Gly	97H	100H	CDR-H3
Pro	72I	Trp	96L	100L	CDR-L3
His	73I	Asp	94L	98L	CDR-L3
His	73I	Trp	96L	100L	CDR-L3
His	73I	Trp	47H	47H	
His	73I	Leu	95H	98H	CDR-H3
His	73I	Tyr	58H	58H	CDR-H2
His	73I	Ser	50H	50H	CDR-H2
His	73I	Tyr	98H	101H	CDR-H3
Lys	74I	Tyr	98H	101H	CDR-H3
Lys	74I	Asn	30AL	31L	CDR-L1
Lys	74I	Asn	92L	96L	CDR-L3
Arg	86I	Tyr	30BL	32L	CDR-L1

[a] Los residuos de aminoácido son numerados de acuerdo con la forma procesada de IL-13 (SEQ ID NO:4). "I" indica aminoácido de IL-13.

[b] Los residuos de aminoácidos corresponden a SEQ ID NO:1 (para residuos de cadena ligera, "L") o SEQ ID NO:2 (para residuos de cadena pesada, "H"), y son numerados de acuerdo con el sistema de numeración Chothia (Al-Lazikani *et al.*, *Jour. Mol. Biol.* 273:927-948, 1997). Véanse tablas 6 y 7.

[c] Residuos de aminoácido son numerados de acuerdo con la numeración de SEQ ID NO: 1 (para residuos de cadena

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ligera, "L") o SEQ ID NO:2 (para residuos de cadena pesada, "H").

Tabla 5

Residuos mal modelados debido a una inadecuada densidad de electrones

Coordenadas	Proteína[a]	Chothia[b]	SEQ ID[c]	Secuencia[c]	Modelada como
Tabla 11	LC	45	49	Lys	Ala
Tabla 11	HC	3	3	Lys	Ala
Tabla 11	HC	105	110	Gln	Ala
Tabla 11	HC	171	176	Glu	Ala
Tabla 11	HC	177	182	Leu	Ala
Tabla 11	HC	205	210	Lys	Ala
Tabla 11	I		89	Lys	Ala
Tabla 11	I		94	Gln	Ala
Tabla 11	I		97	Lys	Ala
Tabla 11	I		105	Lys	Ala
Tabla 11	I		108	Arg	Ala
Tabla 11	I		109	Glu	ala

[a] "HC" es cadena pesada (SEQ ID NO:2); "LC" es cadena ligera (SEQ ID NO: 1); "I" es IL-13 procesada (SEQ ID NO:4).

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[b] Los residuos de aminoácido corresponden a SEQ ID NO:1 (para residuos de cadena ligera, "LC") o SEQ ID NO:2 (para residuos de cadena pesada, "HC"), y son numerados de acuerdo con el sistema de numeración Chothia (Al-Lazikani et *al.*, *Jour. Mol. Biol.* 273:927-948, 1997). Véanse tablas 6 y 7.

[c] Los residuos de aminoácido se numeran e identifican de acuerdo con la numeración de SEQ ID NO:1 (para residuos de cadena ligera, "LC"), SEQ ID NO:2 (para residuos de cadena pesada, "HC") o SEQ ID NO:4 (para residuos del polipéptido procesado IL-13, "I").

La figura 3 es un diagrama de cinta que ilustra la estructura co-cristalina de mAb13.2 Fab con IL-13 humano. La cadena ligera de mAb13.2 Fab se muestra en sombra oscura, y la cadena pesada en sombra clara. La estructura de IL-13 se muestra a la derecha. La figura ilustra la interacción de la hélice alfa c e IL-13 con las asas CDR del anticuerpo. Los residuos principales de la cadena pesada de mAb13.2 que hacen contactos por enlace de hidrógeno con IL-13 son SER50 (CDR2), SER53 (CDR2), TYR101 (CDR3) y TYR102 (CDR3). Los residuos principales de la cadena pesada de mAb13.2 que hacen contactos de van der Waals de IL-13 son ILE30 (CDR1), SER31 (CDR1), ALA33 (CDR1), TRP47, SER50 (CDR2), SER52 (CDR2), SER53 (CDR2), TYR58 (CDR2), LEU98 (CDR3), ASP99 (CDR3), GLY100 (CDR3), TYR101 (CDR3), TYR102(CDR3) y PHE103 (CDR3)

(véase tabla 4; aminoácidos numerados de acuerdo con la numeración de SEQ ID NO:2 (figura 1B)).

De acuerdo con la numeración de aminoácidos de SEQ ID NO:1 (figura 1A), los principales residuos de la cadena ligera de mAb13.2 que pudieran hacer contacto por enlaces de hidrógeno con IL-13 son ASN31 (CDR1), TYR32 (CDR1), LYS34 (CDR1), ASN96 (CDR3) y ASP98 (CDR3). Los residuos principales de la cadena ligera de mAb13.2 que pueden hacer contactos de van der Waals con IL-13 son ASN31 (CDR1), TYR32 (CDR1), LYS34 (CDR1), ARG54 (CDR2), ASN96 (CDR3), ASP98 (CDR3) y TRP100 (CDR3) (véase tabla 4).

Han surgido varios esquemas de numeración para describir los residuos de aminoácido de los polipéptidos de cadena pesada y ligera de un anticuerpo. Los esquemas de Kabat y Chothia numeran los residuos de aminoácido linealmente aceptados en la región CDR definida del polipéptido, en donde se indican inserciones. El sistema de Kabat (Kabat *et al.*, NIH No. Publ. No. 91-3242, 5ª ed., vol. 1-3, Depto. de Salud y Servicios, 1991) define la ubicación de las CDRs de cadena pesada y cadena ligera mediante variabilidad de secuencia, mientras que el sistema Chothia (Al-Lazikani *et al.*, *Jour: Mol. Biol.* 273:927-948, 1997) define la ubicación estructuralmente por regiones de asa. Gracias a la diferente colocación de las inserciones de CDR, la numeración de los aminoácidos en la cadena pesada y la

cadena ligera puede variar entre los dos sistemas. La anotación de inserciones de aminoácido causa que cada uno de estos sistemas de numeración se desvíen de la numeración lineal. Las tablas 6 y 7 alinean las secuencias de aminoácidos de las cadenas ligera y pesada, respectivamente, de mAb13.2 Fab de acuerdo con éstos tres esquemas de numeración diferentes (Kabat, Chothia, y numeración lineal).

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Tabla 6 Secuencia de aminoácidos de la cadena ligera de mAb13.2Fab de acuerdo con los sistemas de numeración (SEQ ID NO:1), Chothia y Kabat lineales[a]

Residuo	Número de Secuencia Lineal	Número de Estructura Chothia	Número de Secuencia Kabat
D	1	1	1
I	2	2	2
V	3	3	3
L	4	4	4
T	5	5	5
Q	6	6	6
S	7	7	7
P	8	8	8
A	9	9	9
S	10	10	10
L	11	11	11
A	12	12	12
V	13	13	13
S	14	14	14
L	15	15	15
G	16	16	16
Q	17	17	17
R	18	18	18
A	19	19	19
T	20	20	20
I	21	21	21
S	22	22	22
C	23	23	23
K	24	24	24
A	25	25	25
S	26	26	26
E	27	27	27
S	28	28	27A
V	29	29	27B
D	30	30	27C
N	31	30A	27D
Y	32	30B	28
G	33	30C	29
K	34	30D	30
S	35	31	31
L	36	32	32

M	37	33	33
H	38	34	34
W	39	35	35
Y	40	36	36
Q	41	37	37
Q	42	38	38
K	43	39	39
P	44	40	40
G	45	41	41
Q	46	42	42
S	47	43	43
P	48	44	44
K	49	45	45
L	50	46	46
L	51	47	47
I	52	48	48
Y	53	49	49
R	54	50	50
A	55	51	51
S	56	52	52
N	57	53	53
L	58	54	54
E	59	55	55
S	60	56	56
G	61	57	57
I	62	58	58
P	63	59	59
A	64	60	60
R	65	61	61
F	66	62	62
S	67	63	63
G	68	64	64
S	69	65	65
G	70	66	66
S	71	67	67
R	72	68	68
T	73	69	69
D	74	70	70
F	75	71	71
T	76	72	72
L	77	73	73
T	78	74	74
I	79	75	75
N	80	76	76

P	81	77	77
V	82	78	78
E	83	79	79
A	84	80	80
D	85	81	81
D	86	82	82
V	87	83	83
A	88	84	84
T	89	85	85
Y	90	86	86
Y	91	87	87
C	92	88	88
Q	93	89	89
Q	94	90	90
S	95	91	91
N	96	92	92
E	97	93	93
D	98	94	94
P	99	95	95
W	100	96	96
T	101	97	97
F	102	98	98
G	103	99	99
G	104	100	100
G	105	101	101
T	106	102	102
K	107	103	103
L	108	104	104
E	109	105	105
I	110	106	106
K	111	107	107
R	**112**	**108**	**108**
A	113	109	109
D	114	110	110
A	115	111	111
A	116	112	112
P	117	113	113
T	118	114	114
V	119	115	115
S	120	116	116
I	121	117	117
F	122	118	118
P	123	119	119
P	124	120	120

S	125	121	121
S	126	122	122
E	127	123	123
Q	128	124	124
L	129	125	125
T	130	126	126
S	131	127	127
G	132	128	128
G	133	129	129
A	134	130	130
S	135	131	131
V	136	132	132
V	137	133	133
C	138	134	134
F	139	135	135
L	140	136	136
N	141	137	137
N	142	138	138
F	143	139	139
Y	144	140	140
P	145	141	141
K	146	142	142
D	147	143	143
I	148	144	144
N	149	145	145
V	150	146	146
K	151	147	147
W	152	148	148
K	153	149	149
I	154	150	150
D	155	151	151
G	156	152	152
S	157	153	153
E	158	154	154
R	159	155	155
Q	160	156	156
N	161	157	157
G	162	158	158
V	163	159	159
L	164	160	160
N	165	161	161
S	166	162	162
W	167	163	163
T	168	164	164

D	169	165	165
Q	170	166	166
D	171	167	167
S	172	168	168
K	173	169	169
D	174	170	170
S	175	171	171
T	176	172	172
Y	177	173	173
S	178	174	174
M	179	175	175
S	180	176	176
S	181	177	177
T	182	178	178
L	183	179	179
T	184	180	180
L	185	181	181
T	186	182	182
K	187	183	183
D	188	184	184
E	189	185	185
Y	190	186	186
E	191	187	187
R	192	188	188
H	193	189	189
N	194	190	190
S	195	191	191
Y	196	192	192
T	197	193	193
C	198	194	194
E	199	195	195
A	200	196	196
T	201	197	197
H	202	198	198
K	203	199	199
T	204	200	200
S	205	201	201
T	206	202	202
S	207	203	203
P	208	204	204
I	209	205	205
V	210	206	206
K	211	207	207
S	212	208	208

F	213	209	209
N	214	210	210
R	215	211	211
N	216	212	212
E	217	213	213
C	218	214	214

[a]La letra en negritas indica una inserción en la secuencia lineal de acuerdo con el sistema de numeración Chotia o Kabat. El residuo en negritas y subrayado indica una inserción como se determinó por datos de rayos X.

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Tabla 7 Secuencia de aminoácidos de la cadena pesada de mAb13.2Fab de acuerdo con los sistemas de numeración (SEQ ID NO:2), Chothia y Kabat lineales[a]

Residuo	Número de Secuencia Lineal	Número de Estructura Chothia	Número de Secuencia Kabat
E	1	1	1
V	2	2	2
K	3	3	3
L	4	4	4
V	5	5	5
E	6	6	6
S	7	7	7
G	8	8	8
G	9	9	9
G	10	10	10
L	11	11	11
V	12	12	12
K	13	13	13
P	14	14	14
G	15	15	15
G	16	16	16
S	17	17	17
L	18	18	18
K	19	19	19
L	20	20	20
S	21	21	21
C	22	22	22
A	23	23	23
A	24	24	24
S	25	25	25
G	26	26	26
F	27	27	27
T	28	28	28
F	29	29	29
I	30	30	30
S	31	31	31
Y	32	32	32
A	33	33	33
M	34	34	34
S	35	35	35

W	36	36	36
V	37	37	37
R	38	38	38
Q	39	39	39
T	40	40	40
P	41	41	41
E	42	42	42
K	43	43	43
R	44	44	44
L	45	45	45
E	46	46	46
W	47	47	47
V	48	48	48
A	49	49	49
S	50	50	50
I	51	51	51
S	52	52	52
S	53	53	53
G	54	54	54
G	55	55	55
N	56	56	56
T	57	57	57
Y	58	58	58
Y	59	59	59
P	60	60	60
D	61	61	61
S	62	62	62
V	63	63	63
K	64	64	64
G	65	65	65
R	66	66	66
F	67	67	67
T	68	68	68
I	69	69	69
S	70	70	70
R	71	71	71
D	72	72	72
N	73	73	73
A	74	74	74
R	75	75	75
N	76	76	76
I	77	77	77
L	78	78	78

Y	79	79	79
L	80	80	80
Q	81	81	81
M	82	82	82
S	83	82A	82A
S	84	82B	82B
L	85	82C	82C
R	86	83	83
S	87	84	84
E	88	85	85
D	89	86	86
T	90	87	87
A	91	88	88
M	92	89	89
Y	93	90	90
Y	94	91	91
C	95	92	92
A	96	93	93
R	97	94	94
L	98	95	95
D	99	96	96
G	100	97	97
Y	101	98	98
Y	102	99	99
F	103	100	100
G	104	100A	100A
F	105	100B	100B
A	106	101	101
Y	107	102	102
W	108	103	103
G	109	104	104
Q	110	105	105
G	111	106	106
T	112	107	107
L	113	108	108
V	114	109	109
A	115	110	110

V	116	111	111
S	117	112	112
A	118	113	113
A	119	114	114
K	**120**	**115**	**115**
T	121	116	116
T	122	117	117
P	123	118	118
P	124	119	119
S	125	120	120
V	126	121	121
Y	127	122	122
P	128	123	123
L	129	124	124
A	130	125	125
P	131	126	126
G	132	127	127
S	133	128	128
A	134	129	129
A	135	130	130
Q	136	131	131
T	137	132	132
N	138	133	133
S	139	134	134
M	140	135	135
V	141	136	136
T	142	137	137
L	143	138	138
G	144	139	139
C	145	140	140
L	146	141	141
V	147	142	142
K	148	143	143
G	149	144	144
Y	150	145	145
F	151	146	146
P	152	147	147
E	153	148	148
P	154	149	149
V	155	150	150
T	156	151	151

V	157	152	152
T	158	153	153
W	159	154	154
N	160	155	155
S	161	156	156
G	162	157	157
S	163	158	158
L	164	159	159
S	165	160	160
S	166	161	161
G	167	162	162
V	168	163	163
H	169	164	164
T	170	165	165
F	171	166	166
P	172	167	167
A	173	168	168
V	174	169	169
L	175	170	170
E	176	171	171
S	177	172	172
D	178	173	173
L	179	174	174
Y	180	175	175
T	181	176	176
L	182	177	177
S	183	178	178
S	184	179	179
S	185	180	180
V	186	181	181
T	187	182	182
V	188	183	183
P	189	184	184
S	190	185	185
S	191	186	186
P	192	187	187
R	193	188	188
P	194	189	189
S	195	190	190
E	196	191	191

T	197	192	192
V	198	193	193
T	199	194	194
C	200	195	195
N	201	196	196
V	202	197	197
A	203	198	198
H	204	199	199
P	205	200	200
A	206	201	201
S	207	202	202
S	208	203	203
T	209	204	204
K	210	205	205
V	211	206	206
D	212	207	207
K	213	208	208
K	214	209	209
I	215	210	210

*La letra en negritas indica una inserción en la secuencia lineal de acuerdo con el sistema de numeración Chotia o Kabat. El residuo en negritas y subrayado indica una inserción como se determinó por datos de rayos X.

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Ejemplo 6

Estructura de cristal del complejo trimérico de receptor de interleucina-13,II-13 α1 y el dominio de unión del anticuerpo mAb13.2Fab inhibidor

El dominio extracelular residuos 27-342; véase figura 14) de IL-12Rα1 se expresó con una etiqueta 6xHis fusionada en el término C (Aman *et al.*, *J. Biol. Chem.* 271:29265-29270, 1996). Se llevó a cabo la expresión en la levadura *Pichia pastoris*. La proteína recombinante se purificó hasta homogeneizarse mediante cromatografía de afinidad sobre NiNTA-agarosa (Qiagen) seguido por la cromatografía de intercambio de aniónes sobre HiTrap Q Sepharosa HP (Pharmacia, Amersham Pharmacia Biotech, UK) y cromatografía de filtración en gel sobre Superdex-75 (Pharmacia).

El IL-13 humano (residuos de aminoácidos 1 a 113) (SEQ ID NO:4) se expresó y purificó como se describió en el ejemplo 5.

Un complejo que contiene IL-13 e IL-13Rα1 se formó al mezclar el receptor con un ligero exceso de IL-13. Seguido de la confirmación de la formación de complejo mediante cromatografía de exclusión de tamaño analítica, el complejo se trató con endoglicosidasa Hf (endoHf) (25,000 unidades/mL) durante 90 minutos a 37°C. Los complejos

desglicosilados se aplicaron a una columna concanavalin A (conA)-Sefarosa para remover la proteína con oligosacáridos no cortados y los complejos restantes se aplicaron a una columna NinTA para remover EndoHf. Los complejos purificados se purificaron hasta homogenizarse mediante cromatografía de filtración en gel sobre Superdex-200 (GE Healthcare, antes Amersham Biosciences, Piscatway, NJ). La formación de complejos 1:1 de IL-13 e IL-13Rα1 se confirmó mediante electroforesis de gel poliacrilamida nativa y cromatografía de exclusión de tamaño antes del tamizado de cristales.

Se purificó mAb13.2 Fab como se describió en el ejemplo 4.

Los cristales de un complejo de IL-13, IL-13Rα1 y mAb13.2 Fab se hicieron crecer a 18°C mediante difusión de vapor en gotas colgantes que contienen 10 mg/ml de complejo de proteína, 13% PEG-MME 2000 y 100 mM de HEPES (pH 7.0). Los cristales aparecieron en varias semanas pero no alcanzaron el tamaño máximo durante varios meses. Los cristales tiene la simetría de grupo de espacio I4 con dimensiones de célula de unidad a= 164.9 Å, b= 164.9 Å, y c= 74.8 Å. Antes de la recolección de datos, los cristales se transfirieron brevemente a etilenglicol al 10% más licor madre y se enfriaron rápidamente en nitrógeno líquido. Desde el principio hasta el fin de la recolección de datos, los cristales se mantuvieron a 100K. Los datos se recolectaron

en la línea de haz 5.0.1 en la Fuente de Luz Avanzada, Berkeley, California. Se integraron y ampliaron las intensidades usando DENZO (Otwinowski and Minor, Methods Enzymol. 276:307-326, 1997) y SCALA ("CCP4", Acta Cryst D50:760-763, 1994).

La estructura se resolvió mediante reemplazo molecular usando las coordenadas del complejo mAb13.2 Fab/IL-13 (tabla 11). Las fases iniciales se mejoraron mediante aplanado con solvente usando Solomon como se implementó en CCP4 ("CCP4", Acta Cryst D50:760-763, 1994). El refinamiento del cuerpo rígido dentro de CCP4 se usó para obtener un modelo inicial. Mapas experimentales con densidad continua se obtuvieron y un modelo inicial se construyó usando QUANTA (Accelrys, Inc., San Diego, CA) y se refinaron contra datos de 30 a 2.2 Å con CNS (Brunger *et al.*, *Acta Cryst* D54:905-921, 1998). El modelo refinado final, que incluye cadenas de polipéptidos de IL-13Rα1 (residuos 6-314), mAb13.2 Fab (residuos de cadena ligera 1-213 y residuos de cadena pesada 1-213) e IL-13 (residuos 6-112), así como 123 moléculas de agua, tienen un valor R de trabajo de 24.4% y un valor R libre de 27.2%. Las estadísticas para la recolección de datos y refinamiento se muestran en las tablas 8 y 9. No existió ángulos de torsión de columna vertebral fuera de las regiones permitidas de la parcela de Tamachandran. Se generaron figuras estructurales usando PYMOL (DeLano, "The

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PYMOL Molecular Graphic System" (2002) DeLano Scientific, San Carlos, CA) y Ribbons (Carson, *J.Appl.Cryst.* 24:958-961, 1991). Los Coordenadas estructurales se proporcionan en la Tabla 12. Los siguientes residuos de IL-13Rα1 no tienen densidad más allá del átomo C-beta y los Coordenadas para cada uno se truncaron para reflejar esta ambigüedad: 81E, 93R, 104T, 105N, 1115, 1121,122E, 124D, 150R, 151T, 157N, 165R, 168E, 169K, 174E, 195S, 196S, 197F, 305D, 306T, 339K, 110P, 200Q, 203Q, 2041, 209N, 212K, 2131, 214K, 240N, 279E, 284N y 293N.

Tabla 8 Estadísticas para Recolección de Datos y Determinación de Fase

Recolección de Datos	IL-13/mAb13.2 Fab/IL-13R α1
Sistema de cristal	Tetragonal
Grupo de espacio	14
Dimensiones de célula de unidad	a=b=164.9 Å, c = 74.8 Å, α=β=γ=90.0°
Temperatura de recolección de datos	100K
Número de datos	1
Fuente de radiación	ALS, Berkeley, CA
Longitud de onda (Å)	X = 1.0 A
Rango de resolución (Å)	30-2.2 Å
Resolución máxima (Å)	2.2 Å
$R_{fusión}$[a] (%)	6.7% (48.6%)
% completo	99.9% (99.0%)
Reflexiones totales (libre)	42298 (2110)
Reflexiones únicas	40188
I/σ(I)	26.6 (2.8)

[a] $R_{fusión} = \Sigma|I_h - \langle I_h \rangle|/\Sigma I_h$, en donde $\langle I_h \rangle$ es la

intensidad promedio sobre equivalentes de simetría. Los números en parentesis reflejan estadisticas de la última cáscara de resolución (2.8 Å - 2.7 Å).

Tabla 9

Estadísticas de refinamiento de estructura

Recolección de Datos	IL-13/mAb13.2 Fab/IL-13R
Modelo para reemplazo molecular	mAb13.2 Fab/IL-13
Resolución máxima (Å)	2.2 Å
$R_{trabajo}$[a] (%)	24.4%
R_{libre} (%)	27.2%

[a] $R_{fusión} = \Sigma||F_{obs}|-|F_{calc}||/\Sigma|F_{obs}|$, R_{libre} es equivalente a $R_{trabajo}$, pero calculada para una selección aleatoria 6.4% de reflexiones que son omitidas del proceso de refinamiento.

Existen dos puntos de interacción sustancial entre IL-13 e IL-13Rα1. Una interacción es entre el dominio Ig 1 y una porción del bucle que conecta las hélices C y D de la citosina mientras que la otra interacción es entre el dominio Ig 3 del receptor y las hélices A y d de IL-13 (véase figura 15).

La interacción entre el dominio Ig 1 de IL-13Rα1 e IL-13 resulta en la formación de una hoja beta extendida abarcando la dos moléculas. Los residuos Thr88, Lys89, Ile90

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y Glu91 de IL-13 (SEQ ID NO:4) forman una hebra beta que interactúa con residuos Lys76, Lys77, Ile78 y Ala79 del receptor (SEQ ID NO:12) (Véase figura 16). Además, la cadena lateral de Met33 de IL-13 se extiende en una bolsa hidrofóbica que se crea mediante las cadenas laterales de estas hebras adjuntas.

La característica predominante de la interacción con el dominio Ig 3 es la inserción de un residuo hidrofóbico (Phe107) de IL-13 en una bolsa hidrofóbica en el dominio Ig 3 del receptor IL-13Rα1. La bolsa hidrofóbica de IL-13Rα1 se forman mediante las cadenas laterales de los residuos Leu319, Cys257, Arg256 y Cys 320 (figura 17). La interacción con Phe107 de IL-13 resulta en un conjunto extensivo de interacciones Van der Waals entre residuos de aminoácidos Ile254, Ser255, Arg256, Lys3118, Cys320 y Tyr321 de IL-13Rα1 (SEQ ID NO:12) y residuos de aminoácidos Arg11, Glu12, Leu13, Ile14, Glu15, Lys104, Lys105, Leu106, Phe107 y Arg108 de IL-13 (SEQ ID NO:4) (Véase figura 17).

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Tabla 10 Coordenadas de estructura de mAb13.2 Fab[a,b]

	#	Nombre	Res.	Cadena	Res	X	Y	Z	occ	B	IDSeg	Ele
ÁTOMO	1	N	ASP L	1		5.849	-2.062	0.182	1.00	66.67	L	N
ÁTOMO	2	CA	ASP L	1		5.758	-0.620	0.381	1.00	65.86	L	C
ÁTOMO	3	C	ASP L	1		7.071	0.081	0.023	1.00	58.91	L	C
ÁTOMO	4	O	ASP L	1		8.115	-0.534	-0.151	1.00	57.75	L	O
ÁTOMO	5	CB	ASP L	1		5.413	-0.362	1.849	1.00	70.47	L	C
ÁTOMO	6	CG	ASP L	1		6.620	-0.695	2.715	1.00	75.61	L	C
ÁTOMO	7	OD1	ASP L	1		7.623	-1.136	2.154	1.00	80.71	L	O
ÁTOMO	8	OD2	ASP L	1		6.547	-0.509	3.927	1.00	87.49	L	O
ÁTOMO	9	N	ILE L	2		6.981	1.415	-0.125	1.00	52.10	L	N
ÁTOMO	10	CA	ILE L	2		8.171	2.181	-0.476	1.00	40.08	L	C
ÁTOMO	11	C	ILE L	2		8.900	2.695	0.767	1.00	42.02	L	C
ÁTOMO	12	O	ILE L	2		8.355	3.411	1.598	1.00	48.63	L	O
ÁTOMO	13	CB	ILE L	2		7.740	3.360	-1.351	1.00	42.36	L	C
ÁTOMO	14	CG1	ILE L	2		7.395	2.872	-2.761	1.00	38.52	L	C
ÁTOMO	15	CG2	ILE L	2		8.895	4.371	-1.472	1.00	36.85	L	C
ÁTOMO	16	CD1	ILE L	2		7.183	4.027	-3.741	1.00	31.90	L	C
ÁTOMO	17	N	VAL L	3		10.170	2.268	0.899	1.00	43.87	L	N
ÁTOMO	18	CA	VAL L	3		10.965	2.713	2.037	1.00	41.50	L	C
ÁTOMO	19	C	VAL L	3		11.652	4.052	1.752	1.00	39.10	L	C
ÁTOMO	20	O	VAL L	3		12.512	4.166	0.888	1.00	45.89	L	O
ÁTOMO	21	CB	VAL L	3		12.016	1.642	2.333	1.00	42.05	L	C
ÁTOMO	22	CG1	VAL L	3		12.810	2.022	3.582	1.00	44.42	L	C
ÁTOMO	23	CG2	VAL L	3		11.342	0.302	2.559	1.00	39.67	L	C
ÁTOMO	24	N	LEU L	4		11.341	4.998	2.628	1.00	40.82	L	N
ÁTOMO	25	CA	LEU L	4		12.027	6.277	2.650	1.00	39.96	L	C
ÁTOMO	26	C	LEU L	4		12.991	6.250	3.819	1.00	40.04	L	C
ÁTOMO	27	O	LEU L	4		12.615	5.894	4.936	1.00	41.74	L	O
ÁTOMO	28	CB	LEU L	4		11.036	7.412	2.857	1.00	38.52	L	C
ÁTOMO	29	CG	LEU L	4		9.763	7.348	2.031	1.00	38.66	L	C
ÁTOMO	30	CD1	LEU L	4		9.007	8.640	2.245	1.00	50.64	L	C
ÁTOMO	31	CD2	LEU L	4		10.094	7.164	0.562	1.00	46.26	L	C
ÁTOMO	32	N	THR L	5		14.234	6.630	3.567	1.00	38.94	L	N
ÁTOMO	33	CA	THR L	5		15.233	6.639	4.622	1.00	41.89	L	C
ÁTOMO	34	C	THR L	5		15.751	8.050	4.829	1.00	46.14	L	C
ÁTOMO	35	O	THR L	5		16.433	8.595	3.962	1.00	53.43	L	O
ÁTOMO	36	CB	THR L	5		16.397	5.730	4.243	1.00	39.78	L	C
ÁTOMO	37	OG1	THR L	5		15.896	4.411	3.995	1.00	53.91	L	O
ÁTOMO	38	CG2	THR L	5		17.430	5.688	5.347	1.00	41.58	L	C
ÁTOMO	39	N	GLN L	6		15.429	8.664	5.959	1.00	43.43	L	N
ÁTOMO	40	CA	GLN L	6		15.925	10.015	6.179	1.00	44.62	L	C
ÁTOMO	41	C	GLN L	6		17.355	9.954	6.681	1.00	46.70	L	C
ÁTOMO	42	O	GLN L	6		17.758	8.989	7.326	1.00	45.08	L	O
ÁTOMO	43	CB	GLN L	6		15.052	10.780	7.179	1.00	44.41	L	C
ÁTOMO	44	CG	GLN L	6		13.596	10.849	6.764	1.00	37.31	L	C
ÁTOMO	45	CD	GLN L	6		12.796	11.858	7.553	1.00	27.04	L	C
ÁTOMO	46	OE1	GLN L	6		11.606	11.679	7.762	1.00	41.69	L	O
ÁTOMO	48	N	SER L	7		18.117	10.993	6.364	1.00	49.55	L	N
ÁTOMO	49	CA	SER L	7		19.511	11.091	6.763	1.00	49.16	L	C
ÁTOMO	50	C	SER L	7		19.823	12.568	6.912	1.00	44.38	L	C
ÁTOMO	51	O	SER L	7		19.517	13.358	6.033	1.00	48.04	L	O
ÁTOMO	52	CB	SER L	7		20.399	10.483	5.676	1.00	51.89	L	C
ÁTOMO	53	OG	SER L	7		21.712	10.254	6.152	1.00	68.31	L	O
ÁTOMO	54	N	PRO L	8		20.426	12.960	8.037	1.00	44.47	L	N
ÁTOMO	55	CA	PRO L	8		20.799	12.057	9.120	1.00	47.06	L	C
ÁTOMO	56	C	PRO L	8		19.607	11.777	10.028	1.00	50.00	L	C
ÁTOMO	57	O	PRO L	8		18.452	11.965	9.640	1.00	56.56	L	O
ÁTOMO	58	CB	PRO L	8		21.883	12.838	9.841	1.00	44.60	L	C
ÁTOMO	59	CG	PRO L	8		21.358	14.219	9.760	1.00	39.02	L	C

ÁTOMO	60	CD	PRO	L	8	20.9	14.323	8.317	1.00	44.32	L	C
ÁTOMO	61	N	ALA	L	9	19.9	11.341	11.244	1.00	42.76	L	N
ÁTOMO	62	CA	ALA	L	9	18.8	11.033	12.215	1.00	30.84	L	C
ÁTOMO	63	C	ALA	L	9	18.7	12.221	13.136	1.00	34.02	L	C
ÁTOMO	64	O	ALA	L	9	17.6	12.564	13.539	1.00	34.10	L	O
ÁTOMO	66	N	SER	L	10	19.8	12.841	13.471	1.00	33.73	L	N
ÁTOMO	67	CA	SER	L	10	19.8	14.006	14.345	1.00	34.21	L	C
ÁTOMO	68	C	SER	L	10	20.6	15.103	13.656	1.00	30.61	L	C
ÁTOMO	69	O	SER	L	10	21.4	14.840	12.786	1.00	37.19	L	O
ÁTOMO	70	CB	SER	L	10	20.5	13.673	15.663	1.00	39.85	L	C
ÁTOMO	71	OG	SER	L	10	19.8	12.647	16.323	1.00	58.43	L	O
ÁTOMO	72	N	LEU	L	11	20.4	16.335	14.069	1.00	29.18	L	N
ÁTOMO	73	CA	LEU	L	11	21.0	17.449	13.441	1.00	29.44	L	C
ÁTOMO	74	C	LEU	L	11	21.1	18.558	14.468	1.00	34.45	L	C
ÁTOMO	75	O	LEU	L	11	20.2	18.914	15.099	1.00	38.49	L	O
ÁTOMO	76	CB	LEU	L	11	20.2	17.919	12.270	1.00	38.78	L	C
ÁTOMO	77	CG	LEU	L	11	20.7	19.031	11.368	1.00	34.38	L	C
ÁTOMO	78	CD1	LEU	L	11	22.0	18.572	10.671	1.00	54.90	L	C
ÁTOMO	79	CD2	LEU	L	11	19.6	19.346	10.345	1.00	44.63	L	C
ÁTOMO	80	N	ALA	L	12	22.3	19.110	14.643	1.00	39.63	L	N
ÁTOMO	81	CA	ALA	L	12	22.7	20.159	15.575	1.00	36.46	L	C
ÁTOMO	82	C	ALA	L	12	23.2	21.418	14.832	1.00	35.24	L	C
ÁTOMO	83	O	ALA	L	12	24.3	21.485	14.251	1.00	40.47	L	O
ÁTOMO	84	CB	ALA	L	12	23.9	19.620	16.429	1.00	39.40	L	C
ÁTOMO	85	N	VAL	L	13	22.3	22.428	14.831	1.00	33.94	L	N
ÁTOMO	86	CA	VAL	L	13	22.6	23.673	14.132	1.00	44.79	L	C
ÁTOMO	87	C	VAL	L	13	22.4	24.889	15.047	1.00	43.03	L	C
ÁTOMO	88	O	VAL	L	13	21.7	24.879	16.023	1.00	42.07	L	O
ÁTOMO	89	CB	VAL	L	13	21.6	23.787	12.942	1.00	42.44	L	C
ÁTOMO	90	CG1	VAL	L	13	21.8	25.143	12.258	1.00	42.25	L	C
ÁTOMO	91	CG2	VAL	L	13	21.9	22.680	11.942	1.00	56.66	L	C
ÁTOMO	92	N	SER	L	14	23.2	25.953	14.719	1.00	46.49	L	N
ÁTOMO	93	CA	SER	L	14	23.1	27.177	15.505	1.00	50.99	L	C
ÁTOMO	94	C	SER	L	14	22.2	28.196	14.839	1.00	46.51	L	C
ÁTOMO	95	O	SER	L	14	22.0	28.269	13.624	1.00	51.52	L	O
ÁTOMO	96	CB	SER	L	14	24.5	27.765	15.650	1.00	51.18	L	C
ÁTOMO	97	OG	SER	L	14	25.5	26.791	15.246	1.00	60.81	L	O
ÁTOMO	98	N	LEU	L	15	21.5	28.976	15.688	1.00	41.47	L	N
ÁTOMO	99	CA	LEU	L	15	20.6	29.971	15.160	1.00	43.66	L	C
ÁTOMO	100	C	LEU	L	15	21.1	30.669	13.918	1.00	43.12	L	C
ÁTOMO	101	O	LEU	L	15	22.3	30.953	13.816	1.00	50.89	L	O
ÁTOMO	102	CB	LEU	L	15	20.3	30.998	16.261	1.00	45.45	L	C
ÁTOMO	103	CG	LEU	L	15	19.4	30.425	17.394	1.00	39.74	L	C
ÁTOMO	104	CD1	LEU	L	15	19.0	31.484	18.428	1.00	50.28	L	C
ÁTOMO	105	CD2	LEU	L	15	18.1	29.810	16.896	1.00	48.82	L	C
ÁTOMO	106	N	GLY	L	16	20.3	31.017	12.967	1.00	39.34	L	N
ÁTOMO	107	CA	GLY	L	16	20.7	31.757	11.807	1.00	37.83	L	C
ÁTOMO	108	C	GLY	L	16	21.5	30.955	10.764	1.00	36.32	L	C
ÁTOMO	109	O	GLY	L	16	21.8	31.473	9.683	1.00	45.28	L	O
ÁTOMO	110	N	GLN	L	17	21.8	29.702	11.068	1.00	30.61	L	N
ÁTOMO	111	CA	GLN	L	17	22.5	28.872	10.111	1.00	33.76	L	C
ÁTOMO	112	C	GLN	L	17	21.5	28.158	9.215	1.00	32.65	L	C
ÁTOMO	113	O	GLN	L	17	20.3	28.471	9.220	1.00	33.30	L	O
ÁTOMO	114	CB	GLN	L	17	23.4	27.851	10.833	1.00	34.75	L	C
ÁTOMO	115	CG	GLN	L	17	24.3	28.480	11.798	1.00	50.05	L	C
ÁTOMO	116	CD	GLN	L	17	25.3	29.478	11.117	1.00	50.98	L	C
ÁTOMO	117	OE1	GLN	L	17	25.5	30.556	11.658	1.00	48.45	L	O
ÁTOMO	118	NE2	GLN	L	17	25.7	29.125	9.927	1.00	32.88	L	N

ÁTOMO	119	N	ARG	L	18	22.034	27.197	8.440	1.00	34.50	L	N
ÁTOMO	120	CA	ARG	L	18	21.179	26.442	7.543	1.00	29.75	L	C
ÁTOMO	121	C	ARG	L	18	21.281	24.969	7.864	1.00	33.92	L	C
ÁTOMO	122	O	ARG	L	18	22.350	24.464	8.186	1.00	40.96	L	O
ÁTOMO	123	CB	ARG	L	18	21.586	26.678	6.094	1.00	32.75	L	C
ÁTOMO	124	CG	ARG	L	18	20.989	25.701	5.105	1.00	27.81	L	C
ÁTOMO	125	CD	ARG	L	18	21.450	26.041	3.706	1.00	37.23	L	C
ÁTOMO	126	NE	ARG	L	18	22.909	26.054	3.575	1.00	56.95	L	N
ÁTOMO	127	CZ	ARG	L	18	23.569	26.457	2.488	1.00	52.86	L	C
ÁTOMO	128	NH1	ARG	L	18	22.909	26.891	1.419	1.00	48.42	L	N
ÁTOMO	129	NH2	ARG	L	18	24.898	26.415	2.465	1.00	46.66	L	N
ÁTOMO	130	N	ALA	L	19	20.148	24.287	7.787	1.00	34.89	L	N
ÁTOMO	131	CA	ALA	L	19	20.080	22.869	8.054	1.00	31.86	L	C
ÁTOMO	132	C	ALA	L	19	19.525	22.234	6.799	1.00	32.59	L	C
ÁTOMO	133	O	ALA	L	19	18.621	22.781	6.185	1.00	37.78	L	O
ÁTOMO	134	CB	ALA	L	19	19.156	22.605	9.222	1.00	26.13	L	C
ÁTOMO	135	N	THR	L	20	20.074	21.093	6.405	1.00	36.27	L	N
ÁTOMO	136	CA	THR	L	20	19.577	20.410	5.228	1.00	41.54	L	C
ÁTOMO	137	C	THR	L	20	19.269	18.979	5.602	1.00	44.55	L	C
ÁTOMO	138	O	THR	L	20	20.070	18.313	6.237	1.00	58.65	L	O
ÁTOMO	139	CB	THR	L	20	20.595	20.402	4.063	1.00	39.53	L	C
ÁTOMO	140	OG1	THR	L	20	20.875	21.745	3.657	1.00	50.92	L	O
ÁTOMO	141	CG2	THR	L	20	20.021	19.672	2.874	1.00	37.47	L	C
ÁTOMO	142	N	ILE	L	21	18.090	18.512	5.222	1.00	45.42	L	N
ÁTOMO	143	CA	ILE	L	21	17.700	17.151	5.516	1.00	38.44	L	C
ÁTOMO	144	C	ILE	L	21	17.582	16.407	4.195	1.00	38.28	L	C
ÁTOMO	145	O	ILE	L	21	17.236	16.989	3.157	1.00	39.74	L	O
ÁTOMO	146	CB	ILE	L	21	16.348	17.103	6.291	1.00	43.11	L	C
ÁTOMO	147	CG1	ILE	L	21	16.521	17.747	7.666	1.00	44.22	L	C
ÁTOMO	148	CG2	ILE	L	21	15.886	15.653	6.483	1.00	47.73	L	C
ÁTOMO	149	CD1	ILE	L	21	15.320	17.550	8.582	1.00	56.67	L	C
ÁTOMO	150	N	SER	L	22	17.885	15.115	4.251	1.00	33.33	L	N
ÁTOMO	151	CA	SER	L	22	17.834	14.257	3.083	1.00	32.47	L	C
ÁTOMO	152	C	SER	L	22	16.856	13.114	3.290	1.00	27.07	L	C
ÁTOMO	153	O	SER	L	22	16.629	12.685	4.419	1.00	32.17	L	O
ÁTOMO	154	CB	SER	L	22	19.235	13.703	2.783	1.00	30.96	L	C
ÁTOMO	155	OG	SER	L	22	19.185	12.604	1.886	1.00	38.42	L	O
ÁTOMO	156	N	CYS	L	23	16.278	12.647	2.184	1.00	19.51	L	N
ÁTOMO	157	CA	CYS	L	23	15.327	11.538	2.177	1.00	32.07	L	C
ÁTOMO	158	C	CYS	L	23	15.568	10.763	0.892	1.00	33.68	L	C
ÁTOMO	159	O	CYS	L	23	15.552	11.328	-0.198	1.00	34.61	L	O
ÁTOMO	160	CB	CYS	L	23	13.881	12.066	2.201	1.00	34.20	L	C
ÁTOMO	161	SG	CYS	L	23	12.480	10.881	2.134	1.00	42.49	L	S
ÁTOMO	162	N	LYS	L	24	15.838	9.473	1.021	1.00	32.63	L	N
ÁTOMO	163	CA	LYS	L	24	16.029	8.646	-0.154	1.00	35.47	L	C
ÁTOMO	164	C	LYS	L	24	14.977	7.548	-0.163	1.00	38.09	L	C
ÁTOMO	165	O	LYS	L	24	14.765	6.858	0.839	1.00	41.45	L	O
ÁTOMO	166	CB	LYS	L	24	17.431	8.040	-0.184	1.00	39.20	L	C
ÁTOMO	167.	CG	LYS	L	24	18.489	8.954	-0.787	1.00	58.69	L	C
ÁTOMO	168	CD	LYS	L	24	18.571	10.293	-0.064	1.00	73.72	L	C
ÁTOMO	169	CE	LYS	L	24	19.889	11.004	-0.356	1.00	82.49	L	C
ÁTOMO	170	NZ	LYS	L	24	21.089	10.292	0.216	1.00	65.38	L	N
ÁTOMO	171	N	ALA	L	25	14.308	7.409	-1.298	1.00	34.05	L	N
ÁTOMO	172	CA	ALA	L	25	13.275	6.407	-1.455	1.00	36.52	L	C
ÁTOMO	173	C	ALA	L	25	13.775	5.221	-2.274	1.00	37.06	L	C
ÁTOMO	174	O	ALA	L	25	14.534	5.379	-3.224	1.00	40.67	L	O
ÁTOMO	175	CB	ALA	L	25	12.049	7.023	-2.121	1.00	32.09	L	C
ÁTOMO	176	N	SER	L	26	13.334	4.034	-1.886	1.00	36.30	L	N
ÁTOMO	177	CA	SER	L	26	13.698	2.804	-2.556	1.00	39.67	L	C
ÁTOMO	178	C	SER	L	26	13.130	2.728	-3.973	1.00	44.72	L	C

ÁTOMO	179	O	SER	L	26	13.625	1.969	-4.798	1.00	51.00	L	O
ÁTOMO	180	CB	SER	L	26	13.165	1.630	-1.756	1.00	45.86	L	C
ÁTOMO	181	OG	SER	L	26	11.749	1.670	-1.717	1.00	46.37	L	O
ÁTOMO	182	N	GLU	L	27	12.088	3.508	-4.248	1.00	42.93	L	N
ÁTOMO	183	CA	GLU	L	27	11.449	3.510	-5.562	1.00	36.19	L	C
ÁTOMO	184	C	GLU	L	27	11.029	4.915	-5.964	1.00	35.89	L	C
ÁTOMO	185	O	GLU	L	27	10.712	5.737	-5.113	1.00	44.15	L	O
ÁTOMO	186	CB	GLU	L	27	10.215	2.602	-5.549	1.00	33.03	L	C
ÁTOMO	187	CG	GLU	L	27	10.513	1.112	-5.429	1.00	38.92	L	C
ÁTOMO	188	CD	GLU	L	27	9.253	0.263	-5.329	1.00	34.14	L	C
ÁTOMO	189	OE1	GLU	L	27	8.952	-0.214	-4.217	1.00	56.00	L	O
ÁTOMO	190	OE2	GLU	L	27	8.556	0.070	-6.354	1.00	49.04	L	O
ÁTOMO	191	N	SER	L	28	11.016	5.184	-7.266	1.00	42.57	L	N
ÁTOMO	192	CA	SER	L	28	10.659	6.527	-7.708	1.00	44.76	L	C
ÁTOMO	193	C	SER	L	28	9.234	6.901	-7.290	1.00	49.62	L	C
ÁTOMO	194	O	SER	L	28	8.288	6.144	-7.465	1.00	45.16	L	O
ÁTOMO	195	CB	SER	L	28	10.784	6.578	-9.232	1.00	45.04	L	C
ÁTOMO	196	OG	SER	L	28	10.814	7.940	-9.657	1.00	43.90	L	O
ÁTOMO	197	N	VAL	L	29	9.161	8.098	-6.720	1.00	51.26	L	N
ÁTOMO	198	CA	VAL	L	29	7.875	8.643	-6.291	1.00	48.35	L	C
ÁTOMO	199	C	VAL	L	29	7.302	9.645	-7.303	1.00	49.03	L	C
ÁTOMO	200	O	VAL	L	29	6.536	10.541	-6.971	1.00	53.81	L	O
ÁTOMO	201	CB	VAL	L	29	8.080	9.339	-4.945	1.00	45.09	L	C
ÁTOMO	202	CG1	VAL	L	29	8.959	8.479	-4.041	1.00	45.73	L	C
ÁTOMO	203	CG2	VAL	L	29	8.743	10.687	-5.153	1.00	39.01	L	C
ÁTOMO	204	N	ASP	L	30	7.725	9.490	-8.572	1.00	50.49	L	N
ÁTOMO	205	CA	ASP	L	30	7.314	10.482	-9.561	1.00	51.89	L	C
ÁTOMO	206	C	ASP	L	30	6.050	10.052	-10.314	1.00	55.22	L	C
ÁTOMO	207	O	ASP	L	30	5.895	8.914	-10.735	1.00	56.81	L	O
ÁTOMO	208	CB	ASP	L	30	8.466	10.674	-10.547	1.00	58.57	L	C
ÁTOMO	209	CG	ASP	L	30	9.368	11.794	-10.050	1.00	71.03	L	C
ÁTOMO	210	OD1	ASP	L	30	9.806	12.590	-10.882	1.00	85.53	L	O
ÁTOMO	211	OD2	ASP	L	30	9.613	11.864	-8.849	1.00	70.16	L	O
ÁTOMO	212	N	ASN	L	30A	5.107	11.007	-10.446	1.00	62.31	L	N
ÁTOMO	213	CA	ASN	L	30A	3.880	10.701	-11.174	1.00	66.21	L	C
ÁTOMO	214	C	ASN	L	30A	3.739	11.546	-12.440	1.00	72.19	L	C
ÁTOMO	215	O	ASN	L	30A	3.151	12.619	-12.450	1.00	71.91	L	O
ÁTOMO	216	CB	ASN	L	30A	2.684	10.949	-10.255	1.00	71.89	L	C
ÁTOMO	217	CG	ASN	L	30A	1.425	10.503	-10.956	1.00	77.18	L	C
ÁTOMO	218	OD1	ASN	L	30A	0.716	11.287	-11.583	1.00	79.23	L	O
ÁTOMO	219	ND2	ASN	L	30A	1.172	9.185	-10.878	1.00	82.39	L	N
ÁTOMO	220	N	TYR	L	30B	4.340	11.038	-13.532	1.00	79.09	L	N
ÁTOMO	221	CA	TYR	L	30B	4.180	11.735	-14.806	1.00	84.64	L	C
ÁTOMO	222	C	TYR	L	30B	4.879	13.099	-14.807	1.00	80.89	L	C
ÁTOMO	223	O	TYR	L	30B	4.403	14.070	-15.380	1.00	78.21	L	O
ÁTOMO	224	CB	TYR	L	30B	2.684	11.917	-15.066	1.00	92.55	L	C
ÁTOMO	225	CG	TYR	L	30B	2.049	10.595	-15.306	1.00	106.94	L	C
ÁTOMO	226	CD1	TYR	L	30B	1.960	9.669	-14.270	1.00	124.67	L	C
ÁTOMO	227	CD2	TYR	L	30B	1.530	10.277	-16.562	1.00	117.46	L	C
ÁTOMO	228	CE1	TYR	L	30B	1.349	8.442	-14.482	1.00	130.56	L	C
ÁTOMO	229	CE2	TYR	L	30B	0.928	9.046	-16.777	1.00	130.84	L	C
ÁTOMO	230	CZ	TYR	L	30B	0.839	8.130	-15.744	1.00	132.90	L	C
ÁTOMO	231	OH	TYR	L	30B	0.224	6.910	-15.945	1.00	133.30	L	O
ÁTOMO	232	N	GLY	L	30C	6.015	13.182	-14.087	1.00	77.39	L	N
ÁTOMO	233	CA	GLY	L	30C	6.790	14.419	-14.111	1.00	76.49	L	C
ÁTOMO	234	C	GLY	L	30C	6.823	15.119	-12.749	1.00	75.11	L	C
ÁTOMO	235	O	GLY	L	30C	7.533	16.093	-12.535	1.00	77.14	L	O
ÁTOMO	236	N	LYS	L	30D	5.991	14.619	-11.818	1.00	67.87	L	N
ÁTOMO	237	CA	LYS	L	30D	5.920	15.263	-10.510	1.00	58.91	L	C
ÁTOMO	238	C	LYS	L	30D	6.254	14.295	-9.367	1.00	54.18	L	C

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ÁTOMO	239	O	LYS L	30D	5.840	13.143	-9.350	1.00	53.39	L	O
ÁTOMO	240	CB	LYS L	30D	4.509	15.831	-10.333	1.00	59.26	L	C
ÁTOMO	241	CG	LYS L	30D	4.209	16.960	-11.324	1.00	63.98	L	C
ÁTOMO	242	CD	LYS L	30D	3.211	17.978	-10.767	1.00	82.67	L	C
ÁTOMO	243	CE	LYS L	30D	3.066	19.212	-11.664	1.00	98.60	L	C
ÁTOMO	244	NZ	LYS L	30D	2.785	18.794	-13.035	1.00	108.42	L	N
ÁTOMO	245	N	SER L	31	7.027	14.777	-8.402	1.00	48.70	L	N
ÁTOMO	246	CA	SER L	31	7.420	13.961	-7.261	1.00	48.64	L	C
ÁTOMO	247	C	SER L	31	6.407	14.075	-6.127	1.00	46.46	L	C
ÁTOMO	248	O	SER L	31	6.195	15.156	-5.571	1.00	46.13	L	O
ÁTOMO	249	CB	SER L	31	8.798	14.391	-6.760	1.00	44.76	L	C
ÁTOMO	250	OG	SER L	31	9.734	14.408	-7.818	1.00	48.15	L	O
ÁTOMO	251	N	LEU L	32	5.777	12.956	-5.788	1.00	40.47	L	N
ÁTOMO	252	CA	LEU L	32	4.796	12.950	-4.717	1.00	36.96	L	C
ÁTOMO	253	C	LEU L	32	5.501	12.689	-3.393	1.00	38.57	L	C
ÁTOMO	254	O	LEU L	32	5.338	11.645	-2.772	1.00	40.41	L	O
ÁTOMO	255	CB	LEU L	32	3.734	11.895	-5.002	1.00	37.94	L	C
ÁTOMO	256	CG	LEU L	32	3.205	12.103	-6.424	1.00	38.09	L	C
ÁTOMO	257	CD1	LEU L	32	1.975	11.241	-6.665	1.00	40.08	L	C
ÁTOMO	258	CD2	LEU L	32	2.883	13.574	-6.625	1.00	18.30	L	C
ÁTOMO	259	N	MET L	33	6.288	13.675	-2.982	1.00	39.42	L	N
ÁTOMO	260	CA	MET L	33	7.069	13.631	-1.756	1.00	35.69	L	C
ÁTOMO	261	C	MET L	33	6.618	14.837	-0.949	1.00	36.17	L	C
ÁTOMO	262	O	MET L	33	6.480	15.921	-1.503	1.00	39.26	L	O
ÁTOMO	263	CB	MET L	33	8.567	13.741	-2.109	1.00	.35.25	L	C
ÁTOMO	264	CG	MET L	33	9.519	13.699	-0.937	1.00	29.04	L	C
ÁTOMO	265	SD	MET L	33	9.186	12.324	0.219	1.00	63.78	L	S
ÁTOMO	266	CE	MET L	33	9.514	10.867	-0.802	1.00	61.41	L	C
ÁTOMO	267	N	HIS L	34	6.383	14.659	0.347	1.00	32.55	L	N
ÁTOMO	268	CA	HIS L	34	5.930	15.773	1.181	1.00	30.96	L	C
ÁTOMO	269	C	HIS L	34	6.689	15.799	2.506	1.00	32.27	L	C
ÁTOMO	270	O	HIS L	34	7.011	14.747	3.052	1.00	37.96	L	O
ÁTOMO	271	CB	HIS L	34	4.426	15.649	1.485	1.00	31.51	L	C
ÁTOMO	272	CG	HIS L	34	3.588	15.261	0.307	1.00	13.71	L	C
ÁTOMO	273	ND1	HIS L	34	3.397	16.087	-0.780	1.00	26.36	L	N
ÁTOMO	274	CD2	HIS L	34	2.882	14.137	0.051	1.00	18.42	L	C
ÁTOMO	275	CE1	HIS L	34	2.609	15.489	-1.654	1.00	16.76	L	C
ÁTOMO	276	NE2	HIS L	34	2.282	14.304	-1.173	1.00	28.77	L	N
ÁTOMO	277	N	TRP L	35	6.958	16.992	3.030	1.00	30.35	L	N
ÁTOMO	278	CA	TRP L	35	7.665	17.110	4.299	1.00	28.13	L	C
ÁTOMO	279	C	TRP L	35	6.826	17.615	5.487	1.00	30.86	L	C
ÁTOMO	280	O	TRP L	35	6.030	18.548	5.367	1.00	31.74	L	O
ÁTOMO	281	CB	TRP L	35	8.877	18.023	4.145	1.00	25.50	L	C
ÁTOMO	282	CG	TRP L	35	9.953	17.475	3.293	1.00	33.54	L	C
ÁTOMO	283	CD1	TRP L	35	10.085	17.629	1.954	1.00	22.15	L	C
ÁTOMO	284	CD2	TRP L	35	11.064	16.676	3.722	1.00	41.05	L	C
ÁTOMO	285	NE1	TRP L	35	11.211	16.981	1.513	1.00	39.93	L	N
ÁTOMO	286	CE2	TRP L	35	11.833	16.386	2.579	1.00	39.83	L	C
ÁTOMO	287	CE3	TRP L	35	11.483	16.176	4.960	1.00	37.32	L	C
ÁTOMO	288	CZ2	TRP L	35	13.004	15.613	2.633	1.00	34.89	L	C
ÁTOMO	289	CZ3	TRP L	35	12.648	15.406	5.010	1.00	39.53	L	C
ÁTOMO	290	CH2	TRP L	35	13.391	15.134	3.856	1.00	25.23	L	C
ÁTOMO	291	N	TYR L	36	7.023	17.006	6.650	1.00	26.93	L	N
ÁTOMO	292	CA	TYR L	36	6.299	17.433	7.823	1.00	24.56	L	C
ÁTOMO	293	C	TYR L	36	7.218	17.809	8.968	1.00	27.73	L	C
ÁTOMO	294	O	TYR L	36	8.359	17.355	9.054	1.00	29.41	L	O
ÁTOMO	295	CB	TYR L	36	5.338	16.353	8.281	1.00	27.13	L	C

ÁTOMO	296	CG	TYR	L	36	4.349	15.958	7.222	1.00	28.84	L	C
ÁTOMO	297	CD1	TYR	L	36	4.703	15.072	6.206	1.00	32.70	L	C
ÁTOMO	298	CD2	TYR	L	36	3.060	16.470	7.230	1.00	29.19	L	C
ÁTOMO	299	CE1	TYR	L	36	3.800	14.706	5.233	1.00	29.50	L	C
ÁTOMO	300	CE2	TYR	L	36	2.146	16.112	6.262	1.00	32.05	L	C
ÁTOMO	301	CZ	TYR	L	36	2.516	15.230	5.269	1.00	28.90	L	C
ÁTOMO	302	OH	TYR	L	36	1.587	14.852	4.331	1.00	31.16	L	O
ÁTOMO	303	N	GLN	L	37	6.703	18.674	9.832	1.00	25.72	L	N
ÁTOMO	304	CA	GLN	L	37	7.419	19.131	11.003	1.00	29.42	L	C
ÁTOMO	305	C	GLN	L	37	6.540	18.825	12.198	1.00	27.20	L	C
ÁTOMO	306	O	GLN	L	37	5.335	19.042	12.169	1.00	30.38	L	O
ÁTOMO	307	CB	GLN	L	37	7.671	20.633	10.950	1.00	30.13	L	C
ÁTOMO	308	CG	GLN	L	37	8.155	21.194	12.281	1.00	39.28	L	C
ÁTOMO	309	CD	GLN	L	37	8.177	22.707	12.306	1.00	36.66	L	C
ÁTOMO	310	OE1	GLN	L	37	7.154	23.349	12.088	1.00	38.84	L	O
ÁTOMO	311	NE2	GLN	L	37	9.340	23.285	12.511	1.00	27.64	L	N
ÁTOMO	312	N	GLN	L	38	7.145	18.290	13.245	1.00	27.64	L	N
ÁTOMO	313	CA	GLN	L	38	6.405	17.982	14.437	1.00	26.94	L	C
ÁTOMO	314	C	GLN	L	38	7.194	18.490	15.623	1.00	27.28	L	C
ÁTOMO	315	O	GLN	L	38	8.193	17.898	16.021	1.00	29.54	L	O
ÁTOMO	316	CB	GLN	L	38	6.152	16.481	14.549	1.00	22.51	L	C
ÁTOMO	317	CG	GLN	L	38	5.437	16.082	15.834	1.00	29.24	L	C
ÁTOMO	318	CD	GLN	L	38	5.113	14.604	15.891	1.00	29.24	L	C
ÁTOMO	319	OE1	GLN	L	38	5.880	13.760	15.419	1.00	32.49	L	O
ÁTOMO	320	NE2	GLN	L	38	3.974	14.277	16.486	1.00	39.87	L	N
ÁTOMO	321	N	LYS	L	39	6.737	19.614	16.166	1.00	28.43	L	N
ÁTOMO	322	CA	LYS	L	39	7.363	20.232	17.324	1.00	26.31	L	C
ÁTOMO	323	C	LYS	L	39	7.019	19.403	18.546	1.00	31.47	L	C
ÁTOMO	324	O	LYS	L	39	5.937	18.810	18.634	1.00	32.57	L	O
ÁTOMO	325	CB	LYS	L	39	6.848	21.660	17.495	1.00	25.15	L	C
ÁTOMO	326	CG	LYS	L	39	7.064	22.527	16.277	1.00	21.42	L	C
ÁTOMO	327	CD	LYS	L	39	6.510	23.887	16.515	1.00	25.95	L	C
ÁTOMO	328	CE	LYS	L	39	6.913	24.841	15.418	1.00	25.49	L	C
ÁTOMO	329	NZ	LYS	L	39	6.500	26.226	15.764	1.00	41.94	L	N
ÁTOMO	330	N	PRO	L	40	7.938	19.351	19.513	1.00	33.67	L	N
ÁTOMO	331	CA	PRO	L	40	7.732	18.575	20.737	1.00	37.29	L	C
ÁTOMO	332	C	PRO	L	40	6.400	18.859	21.429	1.00	42.79	L	C
ÁTOMO	333	O	PRO	L	40	6.055	20.011	21.724	1.00	40.43	L	O
ÁTOMO	334	CB	PRO	L	40	8.939	18.950	21.587	1.00	42.86	L	C
ÁTOMO	335	CG	PRO	L	40	9.983	19.257	20.560	1.00	39.77	L	C
ÁTOMO	336	CD	PRO	L	40	9.222	20.062	19.553	1.00	29.92	L	C
ÁTOMO	337	N	GLY	L	41	5.648	17.790	21.668	1.00	43.78	L	N
ÁTOMO	338	CA	GLY	L	41	4.367	17.929	22.326	1.00	46.56	L	C
ÁTOMO	339	C	GLY	L	41	3.223	18.220	21.383	1.00	43.68	L	C
ÁTOMO	340	O	GLY	L	41	2.105	18.424	21.834	1.00	49.55	L	O
ÁTOMO	341	N	GLN	L	42	3.483	18.235	20.080	1.00	41.00	L	N
ÁTOMO	342	CA	GLN	L	42	2.429	18.509	19.113	1.00	40.68	L	C
ÁTOMO	343	C	GLN	L	42	2.301	17.439	18.031	1.00	42.38	L	C
ÁTOMO	344	0	GLN	L	42	2.975	16.410	18.059	1.00	40.20	L	O
ÁTOMO	345	CB	GLN	L	42	2.674	19.858	18.449	1.00	44.01	L	C
ÁTOMO	346	CG	GLN	L	42	2.908	20.997	19.419	1.00	53.32	L	C
ÁTOMO	347	CD	GLN	L	42	3.214	22.303	18.716	1.00	47.80	L	C
ÁTOMO	348	OE1	GLN	L	42	3.430	23.330	19.351	1.00	82.52	L	O
ÁTOMO	349	NE2	GLN	L	42"	3.234	22.267	17.387	1.00	57.98	L	N
ÁTOMO	350	N	SER	L	43	1.420	17.689	17.071	1.00	41.14	L	N

ÁTOMO	351	CA	SER	L	43	1.211	16.757	15.972	1.00	42.56	L	C
ÁTOMO	352	C	SER	L	43	1.930	17.230	14.710	1.00	40.84	L	C
ÁTOMO	353	O	SER	L	43	2.415	18.359	14.633	1.00	43.67	L	O
ÁTOMO	354	CB	SER	L	43	-0.280	16.609	15.699	1.00	40.59	L	C
ÁTOMO	355	OG	SER	L	43	-9.907	17.872	15.663	1.00	47.28	L	O
ÁTOMO	356	N	PRO	L	44	2.018	16.367	13.702	1.00	35.42	L	N
ÁTOMO	357	CA	PRO	L	44	2.705	16.792	12.484	1.00	36.10	L	C
ÁTOMO	358	C	PRO	L	44	2.094	18.026	11.826	1.00	33.06	L	C
ÁTOMO	359	O	PRO	L	44	0.923	18.322	12.007	1.00	41.89	L	O
ÁTOMO	360	CB	PRO	L	44	2.623	15.550	11.601	1.00	34.17	L	C
ÁTOMO	361	CG	PRO	L	44	2.704	14.448	12.595	1.00	33.70	L	C
ÁTOMO	362	CD	PRO	L	44	1.734	14.925	13.662	1.00	33.48	L	C
ÁTOMO	363	N	LYS	L	45	2.912	18.747	11.071	1.00	37.41	L	N
ÁTOMO	364	CA	LYS	L	45	2.661	20.000	10.405	1.00	32.25	L	C
ÁTOMO	365	C	LYS	L	45	3.136	19.899	8.972	1.00	36.14	L	C
ÁTOMO	366	O	LYS	L	45	4.278	19.559	8.691	1.00	43.37	L	O
ÁTOMO	367	CB	LYS	L	45	3.438	21.096	11.136	1.00	36.87	L	C
ÁTOMO	368	CG	LYS	L	45	2.712	22.442	11.101	1.00	30.75	L	C
ÁTOMO	369	CD	LYS	L	45	3.574	23.580	11.651	1.00	63.53	L	C
ÁTOMO	370	CE	LYS	L	45	2.736	24.707	12.264	1.00	73.22	L	C
ÁTOMO	371	NZ	LYS	L	45	3.328	25.128	13.533	1.00	86.98	L	N
ÁTOMO	372	N	LEU	L	46	2.387	20.252	7.929	1.00	38.47	L	N
ÁTOMO	373	CA	LEU	L	46	2.905	20.250	6.558	1.00	31.56	L	C
ÁTOMO	374	C	LEU	L	46	3.715	21.512	6.282	1.00	27.56	L	C
ÁTOMO	375	O	LEU	L	46	3.325	22.604	6.679	1.00	30.41	L	O
ÁTOMO	376	CB	LEU	L	46	1.745	20.151	5.561	1.00	30.51	L	C
ÁTOMO	377	CG	LEU	L	46	2.062	20.048	4.063	1.00	32.20	L	C
ÁTOMO	378	CD1	LEU	L	46	2.843	18.751	3.752	1.00	33.50	L	C
ÁTOMO	379	CD2	LEU	L	46	0.750	20.068	3.305	1.00	23.20	L	C
ÁTOMO	380	N	LEU	L	47	4.848	21.354	5.610	1.00	28.53	L	N
ÁTOMO	381	CA	LEU	L	47	5.721	22.482	5.288	1.00	28.04	L	C
ÁTOMO	382	C	LEU	L	47	5.890	22.620	3.776	1.00	28.70	L	C
ÁTOMO	383	O	LEU	L	47	5.701	23.694	3.195	1.00	29.81	L	O
ÁTOMO	384	CB	LEU	L	47	7.100	22.267	5.894	1.00	25.65	L	C
ÁTOMO	385	CG	LEU	L	47	7.289	21.941	7.367	1.00	27.87	L	C
ÁTOMO	386	CD1	LEU	L	47	8.738	21.534	7.578	1.00	38.37	L	C
ÁTOMO	387	CD2	LEU	L	47	6.923	23.136	8.223	1.00	32.83	L	C
ÁTOMO	388	N	ILE	L	48	6.274	21.517	3.148	1.00	28.34	L	N
ÁTOMO	389	CA	ILE	L	48	6.479	21.499	1.716	1.00	27.51	L	C
ÁTOMO	390	C	ILE	L	48	5.664	20.340	1.225	1.00	26.97	L	C
ÁTOMO	391	O	ILE	L	48	5.583	19.325	1.916	1.00	23.95	L	O
ÁTOMO	392	CB	ILE	L	48	7.981	21.227	1.336	1.00	30.58	L	C
ÁTOMO	393	CG1	ILE	L	48	8.896	22.342	1.865	1.00	16.40	L	C
ÁTOMO	394	CG2	ILE	L	48	8.112	21.058	-0.173	1.00	30.40	L	C
ÁTOMO	395	CD1	ILE	L	48	8.731	23.661	1.216	1.00	27.58	L	C
ÁTOMO	396	N	TYR	L	49	5.047	20.499	0.052	1.00	26.36	L	N
ÁTOMO	397	CA	TYR	L	49	4.260	19.424	-0.568	1.00	28.37	L	C
ÁTOMO	398	C	TYR	L	49	4.706	19.327	-2.021	1.00	31.64	L	C
ÁTOMO	399	O	TYR	L	49	5.155	20.318	-2.604	1.00	27.84	L	O
ÁTOMO	400	CB	TYR	L	49	2.752	19.692	-0.488	1.00	26.55	L	C
ÁTOMO	401	CG	TYR	L	49	2.286	20.901	-1.257	1.00	28.05	L	C
ÁTOMO	402	CD1	TYR	L	49	1.996	20.824	-2.614	1.00	26.50	L	C
ÁTOMO	403	CD2	TYR	L	49	2.134	22.127	-0.625	1.00	31.29	L	C
ÁTOMO	404	CE1	TYR	L	49	1.570	21.921	-3.308	1.00	9.37	L	C
ÁTOMO	405	CE2	TYR	L	49	1.711	23.225	-1.317	1.00	22.71	L	C
ÁTOMO	406	CZ	TYR	L	49	1.429	23.121	-2.656	1.00	21.56	L	C
ÁTOMO	407	OH	TYR	L	49	1.009	24.244	-3.339	1.00	29.15	L	O
ÁTOMO	408	N	ARG	L	50	4.586	18.121	-2.580	1.00	31.18	L	N
ÁTOMO	409	CA	ARG	L	50	4.996	17.807	-3.944	1.00	31.83	L	C
ÁTOMO	410	C	ARG	L	50	6.452	18.210	-4.163	1.00	30.16	L	C

ÁTOMO	411	O	ARG	L	50	6.785	18.943	-5.091	1.00	36.35	L	O
ÁTOMO	412	CB	ARG	L	50	4.075	18.489	-4.965	1.00	35.34	L	C
ÁTOMO	413	CG	ARG	L	50	3.869	17.654	-6.233	1.00	38.86	L	C
ÁTOMO	414	CD	ARG	L	50	2.570	18.007	-6.937	1.00	42.11	L	C
ÁTOMO	415	NE	ARG	L	50	2.621	19.309	-7.604	1.00	47.83	L	N
ÁTOMO	416	CZ	ARG	L	50	1.635	20.202	-7.586	1.00	61.81	L	C
ÁTOMO	417	NH1	ARG	L	50	0.508	19.948	-6.929	1.00	75.42	L	N
ÁTOMO	418	NH2	ARG	L	50	1.777	21.357	-8.225	1.00	59.09	L	N
ÁTOMO	419	N	ALA	L	51	7.316	17.735	-3.278	1.00	24.07	L	N
ÁTOMO	420	CA	ALA	L	51	8.735	18.019	-3.357	1.00	26.98	L	C
ÁTOMO	421	C	ALA	L	51	9.225	19.452	-3.079	1.00	32.99	L	C
ÁTOMO	422	O	ALA	L	51	10.230	19.621	-2.383	1.00	32.33	L	O
ÁTOMO	423	CB	ALA	L	51	9.264	17.566	-4.698	1.00	23.60	L	C
ÁTOMO	424	N	SER	L	52	8.560	20.483	-3.600	1.00	32.36	L	N
ÁTOMO	425	CA	SER	L	52	9.084	21.821	-3.346	1.00	30.41	L	C
ÁTOMO	426	C	SER	L	52	8.137	23.006	-3.194	1.00	31.91	L	C
ÁTOMO	427	O	SER	L	52	8.527	24.139	-3.433	1.00	34.94	L	O
ÁTOMO	428	CB	SER	L	52	10.106	22.167	-4.422	1.00	31.84	L	C
ÁTOMO	429	OG	SER	L	52	9.479	22.322	-5.677	1.00	37.85	L	O
ÁTOMO	430	N	ASN	L	53	6.906	22.760	-2.779	1.00	32.30	L	N
ÁTOMO	431	CA	ASN	L	53	5.944	23.838	-2.609	1.00	24.50	L	C
ÁTOMO	432	C	ASN	L	53	5.791	24.229	-1.153	1.00	28.28	L	C
ÁTOMO	433	O	ASN	L	53	5.620	23.362	-0.289	1.00	37.53	L	O
ÁTOMO	434	CB	ASN	L	53	4.602	23.395	-3.140	1.00	13.31	L	C
ÁTOMO	435	CG	ASN	L	53	4.596	23.255	-4.622	1.00	19.61	L	C
ÁTOMO	436	OD1	ASN	L	53	4.408	24.233	-5.336	1.00	39.42	L	O
ÁTOMO	437	ND2	ASN	L	53	4.813	22.040	-5.110	1.00	18.53	L	N
ÁTOMO	438	N	LEU	L	54	5.839	25.525	-0.869	1.00	23.59	L	N
ÁTOMO	439	CA	LEU	L	54	5.650	25.916	0.519	1.00	19.73	L	C
ÁTOMO	440	C	LEU	L	54	4.169	25.939	0.896	1.00	31.23	L	C
ÁTOMO	441	O	LEU	L	54	3.338	26.555	0.242	1.00	34.46	L	O
ÁTOMO	442	CB	LEU	L	54	6.253	27.310	0.700	1.00	11.46	L	C
ÁTOMO	443	CG	LEU	L	54	6.195	27.789	2.150	1.00	10.41	L	C
ÁTOMO	444	CD1	LEU	L	54	7.125	26.991	3.065	1.00	23.59	L	C
ÁTOMO	445	CD2	LEU	L	54	6.595	29.256	2.306	1.00	20.82	L	C
ÁTOMO	446	N	GLU	L	55	3.840	25.195	1.966	1.00	32.72	L	N
ÁTOMO	447	CA	GLU	L	55	2.450	25.231	2.379	1.00	36.54	L	C
ÁTOMO	448	C	GLU	L	55	2.042	26.636	2.808	1.00	44.62	L	C
ÁTOMO	449	O	GLU	L	55	2.860	27.482	3.137	1.00	50.47	L	O
ÁTOMO	450	CB	GLU	L	55	2.289	24.273	3.555	1.00	33.98	L	C
ÁTOMO	451	CG	GLU	L	55	0.883	24.310	4.148	1.00	41.02	L	C
ÁTOMO	452	CD	GLU	L	55	-0.096	23.783	3.130	1.00	41.65	L	C
ÁTOMO	453	OE1	GLU	L	55	0.148	23.949	1.945	1.00	54.51	L	O
ÁTOMO	454	OE2	GLU	L	55	-1.080	23.168	3.533	1.00	61.09	L	O
ÁTOMO	455	N	SER	L	56	0.728	26.885	2.752	1.00	48.75	L	N
ÁTOMO	456	CA	SER	L	56	0.259	28.168	3.246	1.00	41.16	L	C
ÁTOMO	457	C	SER	L	56	0.432	28.262	4.758	1.00	39.72	L	C
ÁTOMO	458	O	SER	L	56	0.403	27.270	5.475	1.00	47.94	L	O
ÁTOMO	459	CB	SER	L	56	-1.214	28.307	2.875	1.00	40.01	L	C
ÁTOMO	460	OG	SER	L	56	-1.453	27.637	1.636	1.00	57.19	L	O
ÁTOMO	461	N	GLY	L	57	0.576	29.464	5.298	1.00	37.39	L	N
ÁTOMO	462	CA	GLY	L	57	0.690	29.617	6.733	1.00	38.10	L	C
ÁTOMO	463	C	GLY	L	57	2.056	29.256	7.280	1.00	37.90	L	C
ÁTOMO	464	O	GLY	L	57	2.280	29.322	8.487	1.00	48.99	L	O
ÁTOMO	465	N	ILE	L	58	2.981	28.867	6.411	1.00	41.88	L	N
ÁTOMO	466	CA	ILE	L	58	4.312	28.507	6.869	1.00	33.29	L	C
ÁTOMO	467	C	ILE	L	58	5.290	29.584	6.452	1.00	36.39	L	C
ÁTOMO	468	O	ILE	L	58	5.241	30.064	5.327	1.00	40.95	L	O
ÁTOMO	469	CB	ILE	L	58	4.761	27.151	6.280	1.00	33.81	L	C
ÁTOMO	470	CG1	ILE	L	58	3.809	26.051	6.745	1.00	22.67	L	C

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ÁTOMO	471	CG2	ILE L	58	6.191	26.817	6.748	1.00	28.57	L	C
ÁTOMO	472	CD1	ILE L	58	3.785	25.886	8.238	1.00	23.54	L	C
ÁTOMO	473	N	PRO L	59	6.197	29.974	7.361	1.00	35.74	L	N
ÁTOMO	474	CA	PRO L	59	7.214	31.007	7.114	1.00	37.66	L	C
ÁTOMO	475	C	PRO L	59	8.000	30.700	5.835	1.00	41.02	L	C
ÁTOMO	476	O	PRO L	59	8.257	29.530	5.525	1.00	39.78	L	O
ÁTOMO	477	CB	PRO L	59	8.107	30.927	8.353	1.00	31.36	L	C
ÁTOMO	478	CG	PRO L	59	7.221	30.346	9.394	1.00	35.70	L	C
ÁTOMO	479	CD	PRO L	59	6.436	29.304	8.649	1.00	32.20	L	C
ÁTOMO	480	N	ALA L	60	8.393	31.736	5.095	1.00	44.34	L	N
ÁTOMO	481	CA	ALA L	60	9.138	31.493	3.868	1.00	41.55	L	C
ÁTOMO	482	C	ALA L	60	10.609	31.228	4.141	1.00	39.49	L	C
ÁTOMO	483	O	ALA L	60	11.470	31.852	3.546	1.00	42.78	L	O
ÁTOMO	484	CB	ALA L	60	8.987	32.655	2.895	1.00	42.73	L	C
ÁTOMO	485	N	ARG L	61	10.892	30.314	5.065	1.00	41.36	L	N
ÁTOMO	486	CA	ARG L	61	12.270	29.941	5.350	1.00	36.65	L	C
ÁTOMO	487	C	ARG L	61	12.397	28.428	5.355	1.00	30.32	L	C
ÁTOMO	488	O	ARG L	61	13.152	27.848	6.127	1.00	32.09	L	O
ÁTOMO	489	CB	ARG L	61	12.774	30.563	6.664	1.00	35.38	L	C
ÁTOMO	490	CG	ARG L	61	11.819	30.552	7.806	1.00	39.45	L	C
ÁTOMO	491	CD	ARG L	61	12.451	31.161	9.057	1.00	42.92	L	C
ÁTOMO	492	NE	ARG L	61	11.723	30.730	10.249	1.00	55.59	L	N
ÁTOMO	493	CZ	ARG L	61	11.822	29.512	10.774	1.00	47.56	L	C
ÁTOMO	494	NH1	ARG L	61	12.725	28.668	10.312	1.00	50.56	L	N
ÁTOMO	495	NH2	ARG L	61	10.997	29.127	11.734	1.00	51.77	L	N
ÁTOMO	496	N	PHE L	62	11.638	27.810	4.453	1.00	28.28	L	N
ÁTOMO	497	CA	PHE L	62	11.614	26.365	4.260	1.00	25.29	L	C
ÁTOMO	498	C	PHE L	62	11.638	26.072	2.755	1.00	22.96	L	C
ÁTOMO	499	O	PHE L	62	11.133	26.860	1.970	1.00	33.28	L	O
ÁTOMO	500	CB	PHE L	62	10.343	25.784	4.883	1.00	31.62	L	C
ÁTOMO	501	CG	PHE L	62	10.393	25.672	6.379	1.00	25.29	L	C
ÁTOMO	502	CD1	PHE L	62	11.066	24.623	6.983	1.00	22.72	L	C
ÁTOMO	503	CD2	PHE L	62	9.767	26.617	7.182	1.00	24.93	L	C
ÁTOMO	504	CE1	PHE L	62	11.110	24.526	8.365	1.00	41.78	L	C
ÁTOMO	505	CE2	PHE L	62	9.809	26.522	8.561	1.00	30.52	L	C
ÁTOMO	506	CZ	PHE L	62	10.478	25.483	9.154	1.00	23.52	L	C
ÁTOMO	507	N	SER L	63	12.205	24.953	2.333	1.00	23.17	L	N
ÁTOMO	508	CA	SER L	63	12.238	24.676	0.902	1.00	30.22	L	C
ÁTOMO	509	C	SER L	63	12.633	23.247	0.612	1.00	27.52	L	C
ÁTOMO	510	O	SER L	63	13.326	22.629	1.402	1.00	33.38	L	O
ÁTOMO	511	CB	SER L	63	13.227	25.617	0.198	1.00	38.88	L	C
ÁTOMO	512	OG	SER L	63	14.579	25.316	0.539	1.00	46.56	L	O
ÁTOMO	513	N	GLY L	64	12.212	22.724	-0.531	1.00	24.58	L	N
ÁTOMO	514	CA	GLY L	64	12.563	21.357	-0.861	1.00	30.22	L	C
ÁTOMO	515	C	GLY L	64	12.896	21.134	-2.328	1.00	33.27	L	C
ÁTOMO	516	O	GLY L	64	12.524	21.935	-3.180	1.00	36.12	L	O
ÁTOMO	517	N	SER L	65	13.610	20.050	-2.624	1.00	33.35	L	N
ÁTOMO	518	CA	SER L	65	13.961	19.728	-4.000	1.00	38.52	L	C
ÁTOMO	519	C	SER L	65	14.327	18.256	-4.147	1.00	36.43	L	C
ÁTOMO	520	O	SER L	65	14.558	17.561	-3.160	1.00	42.08	L	O
ÁTOMO	521	CB	SER L	65	15.120	20.601	-4.487	1.00	37.34	L	C
ÁTOMO	522	OG	SER L	65	16.285	20.339	-3.742	1.00	50.72	L	O
ÁTOMO	523	N	GLY L	66	14.366	17.798	-5.395	1.00	33.13	L	N
ÁTOMO	524	CA	GLY L	66	14.684	16.421	-5.690	1.00	31.58	L	C
ÁTOMO	525	C	GLY L	66	13.681	15.847	-6.671	1.00	36.03	L	C
ÁTOMO	526	O	GLY L	66	12.821	16.550	-7.178	1.00	37.03	L	O
ÁTOMO	527	N	SER L	67	13.801	14.563	-6.954	1.00	39.41	L	N
ÁTOMO	528	CA	SER L	67	12.885	13.900	-7.855	1.00	44.59	L	C
ÁTOMO	529	C	SER L	67	13.192	12.420	-7.790	1.00	49.82	L	C
ÁTOMO	530	O	SER L	67	14.104	12.000	-7.076	1.00	48.37	L	O

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ÁTOMO	531	CB	SER	L	67	13.042	14.423	-9.284	1.00	48.35	L	C
ÁTOMO	532	OG	SER	L	67	14.309	14.105	-9.835	1.00	56.59	L	O
ÁTOMO	533	N	ARG	L	68	12.421	11.636	-8.531	1.00	52.66	L	N
ÁTOMO	534	CA	ARG	L	68	12.605	10.183	-8.578	1.00	54.25	L	C
ÁTOMO	535	C	ARG	L	68	12.825	9.569	-7.185	1.00	47.35	L	C
ÁTOMO	536	O	ARG	L	68	11.904	9.098	-6.533	1.00	45.82	L	O
ÁTOMO	537	CB	ARG	L	68	13.806	9.887	-9.475	1.00	61.56	L	C
ÁTOMO	538	CG	ARG	L	68	13.389	9.548	-10.906	1.00	72.12	L	C
ÁTOMO	539	CD	ARG	L	68	13.851	8.145	-11.319	1.00	89.41	L	C
ÁTOMO	540	NE	ARG	L	68	14.580	7.503	-10.223	1.00	103.03	L	N
ÁTOMO	541	CZ	ARG	L	68	14.446	6.171	-10.089	1.00	112.09	L	C
ÁTOMO	542	NH1	ARG	L	68	13.684	13.684	-10.928	1.00	118.70	L	N
ÁTOMO	543	NH2	ARG	L	68	15.095	5.537	-9.107	1.00	113.31	L	N
ÁTOMO	544	N	THR	L	69	14.068	9.569	-6.708	1.00	39.62	L	N
ÁTOMO	545	CA	THR	L	69	14.349	8.946	-5.419	1.00	40.58	L	C
ÁTOMO	546	C	THR	L	69	15.110	9.743	-4.364	1.00	40.89	L	C
ÁTOMO	547	O	THR	L	69	15.193	9.316	-3.217	1.00	39.24	L	O
ÁTOMO	548	CB	THR	L	69	15.099	7.629	-5.618	1.00	46.72	L	C
ÁTOMO	549	OG1	THR	L	69	16.296	7.873	-6.375	1.00	58.12	L	O
ÁTOMO	550	CG2	THR	L	69	14.218	6.631	-6.357	1.00	45.58	L	C
ÁTOMO	551	N	ASP	L	70	15.678	10.882	-4.736	1.00	44.06	L	N
ÁTOMO	552	CA	ASP	L	70	16.414	11.687	-3.767	1.00	44.09	L	C
ÁTOMO	553	C	ASP	L	70	15.686	12.997	-3.548	1.00	42.38	L	C
ÁTOMO	554	O	ASP	L	70	15.227	13.618	-4.507	1.00	41.69	L	O
ÁTOMO	555	CB	ASP	L	70	17.829	12.014	-4.258	1.00	52.55	L	C
ÁTOMO	556	CG	ASP	L	70	18.757	10.821	-4.248	1.00	58.23	L	C
ÁTOMO	557	OD1	ASP	L	70	19.971	11.055	-4.428	1.00	72.20	L	O
ÁTOMO	558	OD2	ASP	L	70	18.296	9.670	-4.073	1.00	56.43	L	O
ÁTOMO	559	N	PHE	L	71	15.599	13.417	-2.286	1.00	31.65	L	N
ÁTOMO	560	CA	PRE	L	71	14.999	14.688	-1.908	1.00	28.67	L	C
ÁTOMO	561	C	PHE	L	71	15.713	15.299	-0.705	1.00	28.28	L	C
ÁTOMO	562	O	PHE	L	71	16.458	14.650	0.018	1.00	33.98	L	O
ÁTOMO	563	CB	PHE	L	71	13.526	14.449	-1.567	1.00	25.73	L	C
ÁTOMO	565	CD1	PHE	L	71	12.658	12.404	-2.703	1.00	28.95	L	C
ÁTOMO	566	CD2	PHE	L	71	12.364	14.540	-3.776	1.00	22.54	L	C
ÁTOMO	567	CE1	PHE	L	71	11.994	11.786	-3.752	1.00	43.28	L	C
ÁTOMO	568	CE2	PHE	L	71	11.696	13.912	-4.823	1.00	33.39	L	C
ÁTOMO	569	CZ	PHE	L	71	11.510	12.535	-4.816	1.00	23.28	L	C
ÁTOMO	570	N	THR	L	72	15.490	16.609	-0.532	1.00	23.10	L	N
ÁTOMO	571	CA	THR	L	72	16.108	17.295	0.591	1.00	30.26	L	C
ÁTOMO	572	C	THR	L	72	15.271	18.488	1.041	1.00	28.38	L	C
ÁTOMO	573	O	THR	L	72	14.699	19.228	0.249	1.00	37.55	L	O
ÁTOMO	574	CB	THR	L	72	17.496	17.769	0.155	1.00	25.36	L	C
ÁTOMO	575	OG1	THR	L	72	17.355	18.682	-0.936	1.00	51.91	L	O
ÁTOMO	576	CG2	THR	L	72	18.335	16.574	-0.303	1.00	41.87	L	C
ÁTOMO	577	N	LEU	L	73	15.178	18.634	2.372	1.00	31.36	L	N
ÁTOMO	578	CA	LEU	L	73	14.474	19.780	2.920	1.00	30.10	L	C
ÁTOMO	579	C	LEU	L	73	15.456	20.784	3.522	1.00	28.13	L	C
ÁTOMO	580	O	LEU	L	73	16.310	20.454	4.334	1.00	30.08	L	O
ÁTOMO	581	CB	LEU	L	73	13.509	19.274	3.996	1.00	37.24	L	C
ÁTOMO	582	CG	LEU	L	73	13.010	20.393	4.915	1.00	24.15	L	C
ÁTOMO	583	CD1	LEU	L	73	11.826	21.151	4.313	1.00	21.16	L	C
ÁTOMO	584	CD2	LEU		73	12.540	19.880	6.277	1.00	25.70	L	C
ÁTOMO	585	N	THR	L	74	15.395	22.054	3.158	1.00	34.02	L	N
ÁTOMO	586	CA	THR	L	74	16.418	23.013	3.610	1.00	29.77	L	C
ÁTOMO	587	C	THR	L	74	15.816	24.170	4.400	1.00	31.14	L	C
ÁTOMO	588	O	THR	L	74	14.888	24.828	3.978	1.00	43.23	L	O
ÁTOMO	589	CB	THR	L	74	17.016	23.586	2.382	1.00	29.59	L	C
ÁTOMO	590	OG1	THR	L	74	17.206	22.556	1.474	1.00	42.71	L	O

ÁTOMO	591	CG2	THR	L	74	18.371	24.266	2.641	1.00	10.54	L	C
ÁTOMO	592	N	ILE	L	75	16.364	24.361	5.587	1.00	34.45	L	N
ÁTOMO	593	CA	ILE	L	75	15.775	25.436	6.333	1.00	41.45	L	C
ÁTOMO	594	C	ILE	L	75	16.807	26.527	6.632	1.00	41.83	L	C
ÁTOMO	595	O	ILE	L	75	17.713	26.346	7.402	1.00	43.17	L	O
ÁTOMO	596	CB	ILE	L	75	15.112	24.818	7.549	1.00	44.27	L	C
ÁTOMO	597	CG1	ILE	L	75	15.596	25.432	8.817	1.00	44.83	L	C
ÁTOMO	598	CG2	ILE	L	75	15.370	23.303	7.635	1.00	49.07	L	C
ÁTOMO	599	CD1	ILE	L	75	14.424	25.873	9.656	1.00	34.16	L	C
ÁTOMO	600	N	ASN	L	76	16.646	27.635	5.919	1.00	40.24	L	N
ÁTOMO	601	CA	ASN	L	76	17.489	28.819	5.986	1.00	35.58	L	C
ÁTOMO	602	C	ASM	L	76	16.652	30.087	6.164	1.00	39.86	L	C
ÁTOMO	603	O	ASN	L	76	15.850	30.465	5.317	1.00	46.58	L	O
ÁTOMO	604	CB	ASN	L	76	18.282	28.894	4.679	1.00	36.33	L	C
ÁTOMO	605	CG	ASN	L	76	19.497	29.764	4.867	1.00	39.90	L	C
ÁTOMO	606	OD1	ASN	L	76	19.789	30.248	5.957	1.00	40.70	L	O
ÁTOMO	607	ND2	ASN	L	76	20.225	29.964	3.756	1.00	38.22	L	N
ÁTOMO	608	N	PRO	L	77	16.833	30.740	7.330	1.00	38.97	L	N
ÁTOMO	609	CA	PRO	L	77	17.746	30.270	8.355	1.00	42.09	L	C
ÁTOMO	610	C	PRO	L	77	17.024	29.423	9.410	1.00	41.44	L	C
ÁTOMO	611	O	PRO	L	77	15.813	29.239	9.389	1.00	46.26	L	O
ÁTOMO	612	CB	PRO	L	77	18.294	31.528	9.020	1.00	43.72	L	C
ÁTOMO	613	CG	PRO	L	77	17.252	32.636	8.840	1.00	34.23	L	C
ÁTOMO	614	CD	PRO	L	77	16.244	31.990	7.769	1.00	40.31	L	C
ÁTOMO	615	N	VAL	L	78	17.828	28.875	10.340	1.00	38.94	L	N
ÁTOMO	616	CA	VAL	L	78	17.249	28.098	11.432	1.00	32.51	L	C
ÁTOMO	617	C	VAL	L	78	16.892	29.001	12.617	1.00	37.03	L	C
ÁTOMO	618	O	VAL	L	78	17.467	3.059	12.828	1.00	39.75	L	O
ÁTOMO	619	CB	VAL	L	78	18.276	27.052	11.871	1.00	28.69	L	C
ÁTOMO	620	CG1	VAL	L	78	17.923	26.534	13.267	1.00	19.40	L	C
ÁTOMO	621	CG2	VAL	L	78	18.292	25.890	10.894	1.00	29.97	L	C
ÁTOMO	622	N	GLU	L	79	15.874	28.566	13.386	1.00	38.02	L	N
ÁTOMO	623	CA	GLU	L	79	15.482	29.378	14.537	1.00	27.34	L	C
ÁTOMO	624	C	GLU	L	79	15.120	28.517	15.754	1.00	34.89	L	C
ÁTOMO	625	O	GLU	L	79	14.910	27.315	15.657	1.00	38.06	L	O
ÁTOMO	626	CB	GLU	L	79	14.282	30.235	14.130	1.00	16.08	L	C
ÁTOMO	627	CG	GLU	L	79	14.702	31.568	13.507	1.00	50.15	L	C
ÁTOMO	628	CD	GLU	L	79	13.474	32.414	13.257	1.00	65.88	L	C
ÁTOMO	629	OE1	GLU	L	79	13.604	33.478	12.669	1.00	80.47	L	O
ÁTOMO	630	OE2	GLU	L	79	12.388	31.997	13.658	1.00	78.67	L	O
ÁTOMO	631	N	ALA	L	80	15.115	29.190	16.923	1.00	39.01	L	N
ÁTOMO	632	CA	ALA	L	80	14.912	28.493	18.188	1.00	34.33	L	C
ÁTOMO	633	C	ALA	L	80	13.650	27.611	18.188	1.00	39.68	L	C
ÁTOMO	634	O	ALA	L	80	13.626	26.506	18.717	1.00	52.15	L	O
ÁTOMO	635	CB	ALA	L	80	14.823	29.530	19.299	1.00	28.88	L	C
ÁTOMO	636	N	ASP	L	81	12.588	28.135	17.590	1.00	38.66	L	N
ÁTOMO	637	CA	ASP	L	81	11.303	27.455	17.561	1.00	40.47	L	C
ÁTOMO	638	C	ASP	L	81	11.194	26.376	16.478	1.00	36.22	L	C
ÁTOMO	639	O	ASP	L	81	10.126	25.821	16.228	1.00	41.23	L	O
ÁTOMO	640	CB	ASP	L	81	10.196	28.505	17.410	1.00	42.43	L	C
ÁTOMO	641	CG	ASP	L	81	8.824	27.892	17.263	1.00	57.83	L	C
ÁTOMO	642	OD1	ASP	L	81	8.398	27.135	18.170	1.00	69.72	L	O
ÁTOMO	643	OD2	ASP	L	81	8.173	28.172	16.231	1.00	68.60	L	O
ÁTOMO	644	N	ASP	L	82	12.305	26.064	15.838	1.00	30.22	L	N
ÁTOMO	645	CA	ASP	L	82	12.273	25.043	14.817	1.00	28.43	L	C
ÁTOMO	646	C	ASP	L	82	12.670	23.660	15.349	1.00	29.30	L	C

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ÁTOMO	647	O	ASP	L	82	12.728	22.691	14.589	1.00	27.94	L	O
ÁTOMO	648	CB	ASP	L	82	13.165	25.454	13.643	1.00	31.74	L	C
ÁTOMO	649	CG	ASP	L	82	12.662	26.704	12.950	1.00	31.05	L	C
ÁTOMO	650	OD1	ASP	L	82	11.432	26.853	12.823	1.00	45.58	L	O
ÁTOMO	651	OD2	ASP	L	82	13.488	27.533	12.521	1.00	50.64	L	O
ÁTOMO	652	N	VAL	L	83	12.952	23.562	16.646	1.00	28.22	L	N
ÁTOMO	653	CA	VAL	L	83	13.293	22.263	17.201	1.00	33.72	L	C
ÁTOMO	654	C	VAL	L	83	12.097	21.348	16.997	1.00	28.29	L	C
ÁTOMO	655	O	VAL	L	83	10.978	21.655	17.417	1.00	20.55	L	O
ÁTOMO	656	CB	VAL	L	83	13.637	22.313	18.717	1.00	34.51	L	C
ÁTOMO	657	CG1	VAL	L	83	14.877	23.162	18.932	1.00	57.28	L	C
ÁTOMO	658	CG2	VAL	L	83	12.471	22.856	19.516	1.00	38.24	L	C
ÁTOMO	659	N	ALA	L	84	12.348	20.225	16.337	1.00	27.89	L	N
ÁTOMO	660	CA	ALA	L	84	11.303	19.274	16.033	1.00	19.99	L	C
ÁTOMO	661	C	ALA	L	84	11.903	18.093	15.293	1.00	25.39	L	C
ÁTOMO	662	O	ALA	L	84	13.117	18.001	15.103	1.00	25.68	L	O
ÁTOMO	663	CB	ALA	L	84	10.265	19.940	15.150	1.00	22.54	L	C
ÁTOMO	664	N	THR	L	85	11.042	17.171	14.893	1.00	34.15	L	N
ÁTOMO	665	CA	THR	L	85	11.492	16.045	14.104	1.00	37.68	L	C
ÁTOMO	666	C	THR	L	85	10.798	16.295	12.773	1.00	36.49	L	C
ÁTOMO	667	O	THR	L	85	9.630	16.689	12.740	1.00	36.43	L	O
ÁTOMO	668	CB	THR	L	85	11.065	14.685	14.705	1.00	36.97	L	C
ÁTOMO	669	OG1	THR	L	85	11.703	14.518	15.974	1.00	43.47	L	O
ÁTOMO	670	CG2	THR	L	85	11.483	13.540	13.799	1.00	18.61	L	C
ÁTOMO	671	N	TYR	L	86	11.531	16.094	11.685	1.00	29.71	L	N
ÁTOMO	672	CA	TYR	L	86	11.001	16.324	10.362	1.00	19.30	L	C
ÁTOMO	673	C	TYR	L	86	10.879	15.017	9.616	1.00	22.60	L	C
ÁTOMO	674	O	TYR	L	86	11.814	14.226	9.588	1.00	26.94	L	O
ÁTOMO	675	CB	TYR	L	86	11.917	17.306	9.621	1.00	20.29	L	C
ÁTOMO	676	CG	TYR	L	86	11.931	18.678	10.264	1.00	17.43	L	C
ÁTOMO	677	CD1	TYR	L	86	12.627	18.908	11.430	1.00	9.96	L	C
ÁTOMO	678	CD2	TYR	L	86	11.183	19.726	9.734	1.00	18.42	L	C
ÁTOMO	679	CE1	TYR	L	86	12.574	20.136	12.054	1.00	25.73	L	C
ÁTOMO	680	CE2	TYR	L	86	11.126	20.951	10.347	1.00	10.31	L	C
ÁTOMO	681	CZ	TYR	L	86	11.823	21.153	11.509	1.00	24.98	L	C
ÁTOMO	682	OH	TYR	L	86	11.772	22.378	12.137	1.00	26.22	L	O
ÁTOMO	683	N	TYR	L	87	9.721	14.787	9.012	1.00	25.84	L	N
ÁTOMO	684	CA	TYR	L	87	9.495	13.550	8.275	1.00	29.22	L	C
ÁTOMO	685	C	TYR	L	87	9.097	13.742	6.828	1.00	29.46	L	C
ÁTOMO	686	O	TYR	L	87	8.299	14.619	6.513	1.00	34.41	L	O
ÁTOMO	687	CB	TYR	L	87	8.370	12.715	8.897	1.00	30.13	L	C
ÁTOMO	688	CG	TYR	L	87	8.442	12.448	10.381	1.00	37.49	L	C
ÁTOMO	689	CD1	TYR	L	87	8.122	13.440	11.304	1.00	23.56	L	C
ÁTOMO	690	CD2	TYR	L	87	8.755	11.180	10.857	1.00	20.61	L	C
ÁTOMO	691	CE1	TYR	L	87	8.108	13.168	12.651	1.00	30.25	L	C
ÁTOMO	692	CE2	TYR	L	87	8.742	10.900	12.201	1.00	29.15	L	C
ÁTOMO	693	CZ	TYR	L	87	8.418	11.894	13.093	1.00	38.77	L	C
ÁTOMO	694	OH	TYR	L	87	8.411	11.612	14.438	1.00	53.01	L	O
ÁTOMO	695	N	CYS	L	88	9.646	12.909	5.949	1.00	36.95	L	N
ÁTOMO	696	CA	CYS	L	88	9.243	12.950	4.555	1.00	36.03	L	C
ÁTOMO	697	C	CYS	L	88	8.105	11.924	4.423	1.00	34.89	L	C
ÁTOMO	698	O	CYS	L	88	7.938	11.047	5.271	1.00	39.85	L	O
ÁTOMO	699	CB	CYS	L	88	10.407	12.624	3.600	1.00	32.83	L	C
ÁTOMO	700	SG	CYS	L	88	11.475	11.173	3.916	1.00	43.40	L	S
ÁTOMO	701	N	GLN	L	89	7.302	12.058	3.380	1.00	30.65	L	N
ÁTOMO	702	CA	GLN	L	89	6.192	11.151	3.167	1.00	30.50	L	C

ÁTOMO	703	C	GLN	L	89	5.920	11.109	1.675	1.00	32.47	L	C
ÁTOMO	704	O	GLN	L	89	5.987	12.129	0.995	1.00	32.80	L	O
ÁTOMO	705	CB	GLN	L	89	4.961	11.652	3.945	1.00	30.53	L	C
ÁTOMO	706	CG	GLN	L	89	3.695	10.818	3.821	1.00	22.52	L	C
ÁTOMO	707	CD	GLN	L	89	2.779	11.312	2.724	1.00	21.93	L	C
ÁTOMO	708	OE1	GLN	L	89	2.455	12.494	2.670	1.00	30.39	L	O
ÁTOMO	709	NE2	GLN	L	89	2.349	10.408	1.843	1.00	37.87	L	N
ÁTOMO	710	N	GLN	L	90	5.647	9.921	1.159	1.00	31.97	L	N
ÁTOMO	711	CA	GLN	L	90	5.364	9.794	-0.260	1.00	38.12	L	C
ÁTOMO	712	C	GLN	L	90	3.872	9.464	-0.365	1.00	39.89	L	C
ÁTOMO	713	O	GLN	L	90	3.246	8.993	0.575	1.00	41.18	L	O
ÁTOMO	714	CB	GLN	L	90	6.352	8.823	-0.923	1.00	31.71	L	C
ÁTOMO	715	CG	GLN	L	90	6.391	7.458	-0.303	1.00	40.36	L	C
ÁTOMO	716	CD	GLN	L	90	5.263	6.565	-0.773	1.00	39.74	L	C
ÁTOMO	717	OE1	GLN	L	90	4.831	6.655	-1.921	1.00	36.34	L	O
ÁTOMO	718	NE2	GLN	L	90	4.765	5.711	0.116	1.00	46.02	L	N
ÁTOMO	719	N	SER	L	91	3.353	9.760	-1.570	1.00	36.91	L	N
ÁTOMO	720	CA	SER	L	91	1.948	9.472	-1.784	1.00	41.30	L	C
ÁTOMO	721	C	SER	L	91	1.791	8.953	-3.225	1.00	39.89	L	C
ÁTOMO	722	O	SER	L	91	0.731	9.043	-3.842	1.00	44.63	L	O
ÁTOMO	723	CB	SER	L	91	1.013	10.688	-1.596	1.00	40.49	L	C
ÁTOMO	724	OG	SER	L	91	1.407	11.742	-2.446	1.00	44.85	L	O
ÁTOMO	725	N	ASN	L	92	2.877	8.390	-3.735	1.00	40.08	L	N
ÁTOMO	726	CA	ASN	L	92	2.896	7.879	-5.091	1.00	40.12	L	C
ÁTOMO	727	C	ASN	L	92	2.465	6.427	-5.208	1.00	41.27	L	C
ÁTOMO	728	O	ASN	L	92	1.930	6.019	-6.234	1.00	39.94	L	O
ÁTOMO	729	CB	ASN	L	92	4.291	8.044	-5.676	1.00	42.77	L	C
ÁTOMO	730	CG	ASN	L	92	4.349	7.649	-7.118	1.00	45.02	L	C
ÁTOMO	731	OD1	ASN	L	92	3.502	8.057	-7.911	1.00	47.49	L	O
ÁTOMO	732	ND2	ASN	L	92	5.344	6.842	-7.473	1.00	58.39	L	N
ÁTOMO	733	N	GLU	L	93	2.711	5.644	-4.166	1.00	41.39	L	N
ÁTOMO	734	CA	GLU	L	93	2.326	4.236	-4.167	1.00	48.66	L	C
ÁTOMO	735	C	GLU	L	93	1.677	3.914	-2.829	1.00	48.42	L	C
ÁTOMO	736	O	GLU	L	93	1.986	4.537	-1.821	1.00	50.64	L	O
ÁTOMO	737	CB	GLU	L	93	3.553	3.328	-4.338	1.00	55.59	L	C
ÁTOMO	738	CG	GLU	L	93	4.476	3.649	-5.515	1.00	62.95	L	C
ÁTOMO	739	CD	GLU	L	93	3.974	3.106	-6.838	1.00	78.92	L	C
ÁTOMO	740	OE1	GLU	L	93	4.737	3.164	-7.832	1.00	84.87	L	O
ÁTOMO	741	OE2	GLU	L	93	2.821	2.623	-6.887	1.00	81.56	L	O
ÁTOMO	742	N	ASP	L	94	0.774	2.943	-2.822	1.00	49.35	L	N
ÁTOMO	743	CA	ASP	L	94	0.121	2.531	-1.588	1.00	51.37	L	C
ÁTOMO	744	C	ASP	L	94	0.883	1.323	-1.053	1.00	50.25	L	C
ÁTOMO	745	O	ASP	L	94	1.332	0.473	-1.823	1.00	50.31	L	O
ÁTOMO	746	CB	ASP	L	94	-1.334	2.158	-1.856	1.00	49.09	L	C
ÁTOMO	747	CG	ASP	L	94	-2.158	3.346	-2.316	1.00	69.28	L	C
ÁTOMO	748	OD1	ASP	L	94	-1.734	4.029	-3.280	1.00	79.28	L	O
ÁTOMO	749	OD2	ASP	L	94	-3.229	3.597	-1.717	1.00	83.48	L	O
ÁTOMO	750	N	PRO	L	95	1.047	1.234	0.275	1.00	46.17	L	N
ÁTOMO	751	CA	PRO	L	95	0.553	2.202	1.255	1.00	45.81	L	C
ÁTOMO	752	C	PRO	L	95	1.474	3.404	1.368	1.00	44.56	L	C
ÁTOMO	753	O	PRO	L	95	2.689	3.244	1.381	1.00	49.31	L	O
ÁTOMO	754	CB	PRO	L	95	0.532	1.389	2.535	1.00	49.20	L	C
ÁTOMO	755	CG	PRO	L	95	1.764	0.558	2.379	1.00	42.46	L	C
ÁTOMO	756	CD	PRO	L	95	1.691	0.095	0.950	1.00	44.07	L	C
ÁTOMO	757	N	TRP	L	96	0.898	4.600	1.446	1.00	39.90	L	N
ÁTOMO	758	CA	TRP	L	96	1.692	5.814	1.575	1.00	33.94	L	C
ÁTOMO	759	C	TRP	L	96	2.572	5.666	2.798	1.00	32.06	L	C
ÁTOMO	760	O	TRP	L	96	2.085	5.410	3.898	1.00	34.49	L	O
ÁTOMO	761	CB	TRP	L	96	0.783	7.032	1.716	1.00	33.74	L	C

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ÁTOMO	762	CG	TRP	L	96	0.087	7.384	0.438	1.00	40.68	L	C
ÁTOMO	763	CD1	TRP	L	96	0.093	6.667	-0.717	1.00	32.69	L	C
ÁTOMO	764	CD2	TRP	L	96	-0.764	8.515	0.202	1.00	45.95	L	C
ÁTOMO	765	NE1	TRP	L	96	-0.702	7.273	-1.654	1.00	35.93	L	N
ÁTOMO	766	CE2	TRP	L	96	-1.239	8.411	-1.115	1.00	35.73	L	C
ÁTOMO	767	CE3	TRP	L	96	-1.169	9.605	0.978	1.00	46.81	L	C
ÁTOMO	768	CZ2	TRP	L	96	-2.094	9.346	-1.674	1.00	44.57	L	C
ÁTOMO	769	CZ3	TRP	L	96	-2.022	10.538	0.416	1.00	41.43	L	C
ÁTOMO	770	CH2	TRP	L	96	-2.473	10.401	-0.897	1.00	42.28	L	C
ÁTOMO	771	N	THR	L	97	3.874	5.830	2.605	1.00	22.72	L	N
ÁTOMO	772	CA	THR	L	97	4.810	5.661	3.702	1.00	20.77	L	C
ÁTOMO	773	C	THR	L	97	5.530	6.928	4.159	1.00	25.09	L	C
ÁTOMO	774	O	THR	L	97	5.689	7.888	3.400	1.00	34.55	L	O
ÁTOMO	775	CB	THR	L	97	5.821	4.568	3.350	1.00	12.22	L	C
ÁTOMO	776	OG1	THR	L	97	6.443	4.876	2.106	1.00	27.43	L	O
ÁTOMO	777	CG2	THR	L	97	5.123	3.263	3.179	1.00	16.82	L	C
ÁTOMO	778	N	PHE	L	98	5.934	6.931	5.423	1.00	23.17	L	N
ÁTOMO	779	CA	PHE	L	98	6.630	8.067	6.002	1.00	26.77	L	C
ÁTOMO	780	C	PHE	L	98	8.092	7.744	6.256	1.00	34.08	L	C
ÁTOMO	781	O	PHE	L	98	8.446	6.612	6.588	1.00	40.23	L	O
ÁTOMO	782	CB	PHE	L	98	6.026	8.457	7.350	1.00	26.01	L	C
ÁTOMO	783	CG	PHE	L	98	4.716	9.169	7.263	1.00	23.16	L	C
ÁTOMO	784	CD1	PHE	L	98	3.546	8.471	7.010	1.00	21.59	L	C
ÁTOMO	785	CD2	PHE	L	98	4.648	10.534	7.506	1.00	22.33	L	C
ÁTOMO	786	CE1	PHE	L	98	2.331	9.109	7.009	1.00	17.66	L	C
ÁTOMO	787	CE2	PHE	L	98	3.428	11.192	7.506	1.00	30.19	L	C
ÁTOMO	788	CZ	PHE	L	98	2.263	10.176	7.260	1.00	36.03	L	C
ÁTOMO	789	N	GLY	L	99	8.944	8.748	6.112	1.00	37.98	L	N
ÁTOMO	790	CA	GLY	L	99	10.346	8.532	6.389	1.00	37.48	L	C
ÁTOMO	791	C	GLY	L	99	10.449	8.396	7.895	1.00	34.91	L	C
ÁTOMO	792	O	GLY	L	99	9.557	87.831	8.622	1.00	38.68	L	O
ÁTOMO	793	N	GLY	L	100	11.532	7.792	8.362	1.00	36.84	L	N
ÁTOMO	794	CA	GLY	L	100	11.726	7.594	9.784	1.00	36.30	L	C
ÁTOMO	795	C	GLY	L	100	11.894	8.862	10.587	1.00	34.70	L	C
ÁTOMO	796	O	GLY	L	100	11.850	8.808	11.809	1.00	37.11	L	O
ÁTOMO	797	N	GLY	L	101	12.096	9.993	9.914	1.00	37.37	L	N
ÁTOMO	798	CA	GLY	L	101	12.244	11.267	10.611	1.00	34.43	L	C
ÁTOMO	799	C	GLY	L	101	13.650	11.761	10.964	1.00	31.97	L	C
ÁTOMO	800	O	GLY	L	101	14.584	10.981	11.156	1.00	31.95	L	O
ÁTOMO	801	N	THR	L	102	13.809	13.075	11.045	1.00	26.36	L	N
ÁTOMO	802	CA	THR	L	102	15.099	13.630	11.447	1.00	26.88	L	C
ÁTOMO	803	C	THR	L	102	14.966	14.643	12.590	1.00	33.12	L	C
ÁTOMO	804	O	THR	L	102	14.243	15.628	12.513	1.00	43.00	L	O
ÁTOMO	805	CB	THR	L	102	15.736	14.302	10.231	1.00	27.40	L	C
ÁTOMO	806	OG1	THR	L	102	16.027	13.300	9.256	1.00	42.19	L	O
ÁTOMO	807	CG2	THR	L	102	17.044	14.985	10.641	1.00	27.02	L	C
ÁTOMO	808	N	LYS	L	103	15.680	14.344	13.691	1.00	34.75	L	N
ÁTOMO	809	CA	LYS	L	103	15.643	15.234	14.845	1.00	37.63	L	C
ÁTOMO	810	C	LYS	L	103	16.573	16.435	14.655	1.00	34.36	L	C
ÁTOMO	811	O	LYS	L	103	17.748	16.307	14.345	1.00	42.52	L	O
ÁTOMO	812	CB	LYS	L	103	16.069	14.433	16.075	1.00	39.61	L	C
ÁTOMO	813	CG	LYS	L	103	14.997	14.419	17.165	1.00	60.51	L	C
ÁTOMO	814	CD	LYS	L	103	15.610	14.460	18.567	1.00	81.15	L	C
ÁTOMO	815	CE	LYS	L	103	14.873	13.561	19.566	1.00	89.92	L	C
ÁTOMO	816	NZ	LYS	L	103	15.498	13.689	20.882	1.00	87.84	L	N
ÁTOMO	817	N	LEU	L	104	15.990	17.639	14.815	1.00	35.10	L	N
ÁTOMO	818	CA	LEU	L	104	16.781	18.856	14.684	1.00	36.62	L	C
ÁTOMO	819	C	LEU	L	104	16.987	19.533	16.045	1.00	33.72	L	C
ÁTOMO	820	O	LEU	L	104	16.046	19.828	16.770	1.00	39.22	L	O

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ÁTOMO	821	CB	LEU	L	104	16.027	19.791	13.731	1.00	40.97	L	C
ÁTOMO	822	CG	LEU	L	104	16.698	21.156	13.559	1.00	36.66	L	C
ÁTOMO	823	CD1	LEU	L	104	18.031	21.069	12.812	1.00	43.72	L	C
ÁTOMO	824	CD2	LEU	L	104	15.830	22.140	12.772	1.00	37.07	L	C
ÁTOMO	825	N	GLU	L	105	18.238	19.751	16.437	1.00	41.16	L	N
ÁTOMO	826	CA	GLU	L	105	18.596	20.461	17.664	1.00	40.54	L	C
ÁTOMO	827	C	GLU	L	105	19.421	21.719	17.371	1.00	37.89	L	C
ÁTOMO	828	O	GLU	L	105	20.169	21.804	16.404	1.00	40.95	L	O
ÁTOMO	829	CB	GLU	L	105	19.387	19.507	18.564	1.00	42.35	L	C
ÁTOMO	830	CG	GLU	L	105	20.901	19.663	18.407	1.00	73.68	L	C
ÁTOMO	831	CD	GLU	L	105	21.554	19.582	19.768	1.00	84.81	L	C
ÁTOMO	832	OE1	GLU	L	105	21.525	20.570	20.491	1.00	80.17	L	O
ÁTOMO	833	OE2	GLU	L	105	22.080	18.519	20.101	1.00	87.53	L	O
ÁTOMO	834	N	ILE	L	106	19.229	22.737	18.229	1.00	36.04	L	N
ÁTOMO	835	CA	ILE	L	106	19.880	24.019	17.981	1.00	42.09	L	C
ÁTOMO	836	C	ILE	L	106	21.054	24.258	18.933	1.00	43.14	L	C
ÁTOMO	837	O.	ILE	L	106	20.938	24.188	20.148	1.00	41.05	L	O
ÁTOMO	838	CB	ILE	L	106	18.833	25.123	18.154	1.00	37.55	L	C
ÁTOMO	839	CG1	ILE	L	106	18.110	25.383	16.829	1.00	47.08	L	C
ÁTOMO	840	CG2	ILE	L	106	19.520	26.432	18.579	1.00	49.18	L	C
ÁTOMO	841	CD1	ILE	L	106	16.795	24.610	16.726	1.00	53.81	L	C
ÁTOMO	842	N	LYS	L	107	22.235	24.505	18.331	1.00	43.16	L	N
ÁTOMO	843	CA	LYS	L	107	23.426	24.732	19.142	1.00	42.21	L	C
ÁTOMO	844	C	LYS	L	107	23.359	26.065	19.892	1.00	45.78	L	C
ÁTOMO	845	O	LYS	L	107	23.424	27.140	19.311	1.00	52.84	L	O
ÁTOMO	846	CB	LYS	L	107	24.645	24.716	18.219	1.00	43.56	L	C
ÁTOMO	847	CG	LYS	L	107	24.960	23.313	17.696	1.00	41.44	L	C
ÁTOMO	848	CD	LYS	L	107	26.185	23.302	16.778	1.00	36.40	L	C
ÁTOMO	849	CE	LYS	L	107	26.513	21.899	16.261	1.00	60.78	L	C
ÁTOMO	850	NZ	LYS	L	107	27.650	21.965	15.344	1.00	61.58	L	N
ÁTOMO	851	N	LYS	L	108	23.271	25.992	21.213	1.00	51.53	L	N
ÁTOMO	852	CA	LYS	L	108	23.241	27.168	22.068	1.00	46.01	L	C
ÁTOMO	853	C	LYS	L	108	24.585	27.279	22.779	1.00	51.04	L	C
ÁTOMO	854	O	LYS	L	108	25.443	26.395	22.653	1.00	52.80	L	O
ÁTOMO	855	CB	LYS	L	108	22.125	27.015	23.106	1.00	40.77	L	C
ÁTOMO	856	CG	LYS	L	108	22.058	28.136	24.099	1.00	40.59	L	C
ÁTOMO	857	CD	LYS	L	108	21.059	27.871	25.178	1.00	24.84	L	C
ÁTOMO	858	CE	LYS	L	108	21.135	28.956	26.237	1.00	44.44	L	C
ÁTOMO	859	NZ	LYS	L	108	22.525	29.139	26.754	1.00	37.04	L	N
ÁTOMO	860	N	ALA	L	109	24.774	28.370	23.513	1.00	52.73	L	N
ÁTOMO	861	CA	ALA	L	109	26.000	28.567	24.273	1.00	52.89	L	C
ÁTOMO	862	C	ALA	L	109	25.841	27.746	25.539	1.00	52.68	L	C
ÁTOMO	863	O	ALA	L	109	24.728	27.608	26.052	1.00	47.67	L	O
ÁTOMO	864	CB	ALA	L	109	26.177	30.033	24.626	1.00	55.47	L	C
ÁTOMO	865	N	ASP	L	110	26.944	27.200	26.039	1.00	52.11	L	N
ÁTOMO	866	CA	ASP	L	110	26.902	26.392	27.252	1.00	48.45	L	C
ÁTOMO	867	C	ASP	L	110	26.142	27.082	28.385	1.00	47.36	L	C
ÁTOMO	868	O	ASP	L	110	26.241	28.294	28.580	1.00	43.93	L	O
ÁTOMO	869	CB	ASP	L	110	28.320	26.060	27.715	1.00	43.82	L	C
ÁTOMO	870	CG	ASP	L	110	29.003	25.027	26.829	1.00	58.57	L	C
ÁTOMO	871	OD1	ASP	L	110	28.396	24.574	25.826	1.00	54.58	L	0
ÁTOMO	872	OD2	ASP	L	110	30.160	24.663	27.147	1.00	62.28	L	O
ÁTOMO	873	N	ALA	L	111	25.368	26.294	29.120	1.00	44.56	L	N
ÁTOMO	874	CA	ALA	L	111	24.592	26.797	30.246	1.00	39.67	L	C
ÁTOMO	875	C	ALA	L	111	24.644	25.726	31.315	1.00	44.68	L	C
ÁTOMO	876	O	ALA	L	111	24.586	24.530	31.005	1.00	49.08	L	O
ÁTOMO	877	CB	ALA	L	111	23.148	27.052	29.832	1.00	31.81	L	C
ÁTOMO	878	N	ALA	L	112	24.773	26.152	32.569	1.00	46.60	L	N
ÁTOMO	879	CA	ALA	L	112	24.825	25.227	33.694	1.00	39.75	L	C

ÁTOMO	880	C	ALA	L	112	23.429	25.074	34.249	1.00	41.14	L	C
ÁTOMO	881	O	ALA	L	112	22.647	26.029	34.276	1.00	43.49	L	O
ÁTOMO	882	CB	ALA	L	112	25.758	25.749	34.772	1.00	36.82	L	C
ÁTOMO	883	N	PRO	L	113	23.090	23.862	34.696	1.00	38.43	L	N
ÁTOMO	884	CA	PRO	L	113	21.778	23.549	35.265	1.00	39.80	L	C
ÁTOMO	885	C	PRO	L	113	21.460	24.318	36.542	1.00	37.82	L	C
ÁTOMO	886	O	PRO	L	113	22.357	24.745	37.263	1.00	39.66	L	O
ÁTOMO	887	CB	PRO	L	113	21.868	22.054	35.527	1.00	42.00	L	C
ÁTOMO	888	CG	PRO	L	113	23.329	21.868	35.833	1.00	35.81	L	C
ÁTOMO	889	CD	PRO	L	113	23.973	22.689	34.749	1.00	40.04	L	C
ÁTOMO	890	N	THR	L	114	20.168	24.487	36.793	1.00	35.18	L	N
ÁTOMO	891	CA	THR	L	114	19.667	25.151	37.983	1.00	38.10	L	C
ÁTOMO	892	C	THR	L	114	19.180	23.966	38.801	1.00	40.59	L	C
ÁTOMO	893	O	THR	L	114	18.103	23.426	38.539	1.00	39.73	L	O
ÁTOMO	894	CB	THR	L	114	18.476	26.033	37.650	1.00	40.42	L	C
ÁTOMO	895	OG1	THR	L	114	18.814	26.882	36.555	1.00	56.04	L	O
ÁTOMO	896	CG2	THR	L	114	18.088	26.872	38.835	1.00	39.90	L	C
ÁTOMO	897	N	VAL	L	115	19.966	23.555	39.787	1.00	40.86	L	N
ÁTOMO	898	CA	VAL	L	115	19.604	22.388	40.574	1.00	38.07	L	C
ÁTOMO	899	C	VAL	L	115	18.839	22.704	41.840	1.00	40.05	L	C
ÁTOMO	900	O	VAL	L	115	19.175	23.638	42.557	1.00	49.01	L	O
ÁTOMO	901	CB	VAL	L	115	20.855	21.587	40.936	1.00	34.55	L	C
ÁTOMO	902	CG1	VAL	L	115	20.461	20.220	41.428	1.00	34.99	L	C
ÁTOMO	903	CG2	VAL	L	115	21.767	21.478	39.724	1.00	34.50	L	C
ÁTOMO	904	N	SER	L	116	17.797	21.926	42.110	1.00	42.26	L	N
ÁTOMO	905	CA	SER	L	116	16.997	22.124	43.314	1.00	46.33	L	C
ÁTOMO	906	C	SER	L	116	16.432	20.781	43.768	1.00	44.24	L	C
ÁTOMO	907	O	SER	L	116	15.787	20.071	42.994	1.00	43.64	L	O
ÁTOMO	908	CB	SER	L	116	15.867	23.137	43.063	1.00	44.71	L	C
ÁTOMO	909	OG	SER	L	116	14.936	22.668	42.114	1.00	40.38	L	O
ÁTOMO	910	N	ILE	L	117	16.690	20.445	45.030	1.00	45.42	L	N
ÁTOMO	911	CA	ILE	L	117	16.259	19.178	45.611	1.00	43.53	L	C
ÁTOMO	912	C	ILE	L	117	14.991	19.319	46.444	1.00	42.44	L	C
ÁTOMO	913	O	ILE	L	117	14.690	20.395	46.934	1.00	49.26	L	O
ÁTOMO	914	CB	ILE	L	117	17.390	18.586	46.475	1.00	41.50	L	C
ÁTOMO	915	CG1	ILE	L	117	17.039	17.160	46.902	1.00	42.52	L	C
ÁTOMO	916	CG2	ILE	L	117	17.645	19.484	47.658	1.00	33.29	L	C
ÁTOMO	917	CD1	ILE	L	117	18.205	16.384	47.448	1.00	24.02	L	C
ÁTOMO	918	N	PHE	L	118	14.250	18.225	46.598	1.00	41.56	L	N
ÁTOMO	919	CA	PHE	L	118	13.001	18.247	47.347	1.00	39.93	L	C
ÁTOMO	920	C	PHE	L	118	12.783	17.035	48.247	1.00	42.69	L	C
ÁTOMO	921	O	PHE	L	118	12.931	15.895	47.812	1.00	40.72	L	O
ÁTOMO	922	CB	PHE	L	118	11.814	18.355	46.387	1.00	35.48	L	C
ÁTOMO	923	CG	PHE	L	118	11.817	19.600	45.553	1.00	34.50	L	C
ÁTOMO	924	CD1	PHE	L	118	12.716	19.753	44.514	1.00	18.82	L	C
ÁTOMO	925	CD2	PHE	L	118	10.912	20.621	45.806	1.00	30.76	L	C
ÁTOMO	926	CE1	PHE	L	118	12.717	20.894	43.741	1.00	32.17	L	C
ÁTOMO	927	CE2	PHE	L	118	10.909	21.771	45.031	1.00	31.22	L	C
ÁTOMO	928	CZ	PHE	L	118	11.815	21.905	43.995	1.00	25.14	L	C
ÁTOMO	929	N	PRO	L	119	12.421	17.278	49.523	1.00	47.96	L	N
ÁTOMO	930	CA	PRO	L	119	12.169	16.224	50.512	1.00	47.94	L	C
ÁTOMO	931	C	PRO	L	119	10.819	15.591	50.208	1.00	48.29	L	C
ÁTOMO	932	O	PRO	L	119	10.000	16.180	49.507	1.00	54.12	L	O
ÁTOMO	933	CB	PRO	L	119	12.151	16.985	51.840	1.00	48.85	L	C
ÁTOMO	934	CG	PRO	L	119	12.940	18.236	51.547	1.00	44.73	L	C
ÁTOMO	935	CD	PRO	L	119	12.467	18.597	50.180	1.00	43.82	L	C
ÁTOMO	936	N	PRO	L	120	10.570	14.385	50.738	1.00	45.71	L	N
ÁTOMO	937	CA	PRO	L	120	9.312	13.665	50.524	1.00	42.24	L	C

ATOMO	938	C	PRO	L	120	8.133	14.384	51.149	1.00	45.17	L	C
ATOMO	939	O	PRO	L	120	8.243	14.972	52.224	1.00	41.74	L	O
ATOMO	940	CB	PRO	L	120	9.552	12.322	51.206	1.00	42.91	L	C
ATOMO	941	CG	PRO	L	120	11.046	12.173	51.177	1.00	53.99	L	C
ATOMO	942	CD	PRO	L	120	11.516	13.562	51.506	1.00	48.06	L	C
ATOMO	943	N	SER	L	121	7.000	14.333	50.464	1.00	51.37	L	N
ATOMO	944	CA	SER	L	121	5.783	14.941	50.970	1.00	52.60	L	C
ATOMO	945	C	SER	L	121	5.304	14.072	52.132	1.00	54.31	L	C
ATOMO	946	O	SER	L	121	5.426	12.842	52.102	1.00	56.78	L	O
ATOMO	947	CB	SER	L	121	4.714	14.972	49.878	1.00	47.45	L	C
ATOMO	948	OG	SER	L	121	4.352	13.655	49.491	1.00	54.16	L	O
ATOMO	949	N	SER	L	122	4.775	14.711	53.168	1.00	60.00	L	N
ATOMO	950	CA	SER	L	122	4.270	13.971	54.317	1.00	59.80	L	C
ATOMO	951	C	SER	L	122	3.155	13.072	53.802	1.00	56.68	L	C
ATOMO	952	O	SER	L	122	2.985	11.939	54.251	1.00	61.42	L	O
ATOMO	953	CB	SER	L	122	3.710	14.938	55.351	1.00	64.43	L	C
ATOMO	954	OG	SER	L	122	2.595	15.630	54.816	1.00	74.50	L	O
ATOMO	955	N	GLU	L	123	2.407	13.597	52.838	1.00	52.91	L	N
ATOMO	956	CA	GLU	L	123	1.298	12.884	52.225	1.00	54.30	L	C
ATOMO	957	C	GLU	L	123	1.745	11.552	51.657	1.00	54.59	L	C
ATOMO	958	O	GLU	L	123	1.092	10.532	51.858	1.00	57.02	L	O
ATOMO	959	CB	GLU	L	123	0.691	13.745	51.129	1.00	56.56	L	C
ATOMO	960	CG	GLU	L	123	0.287	15.109	51.631	1.00	70.52	L	C
ATOMO	961	CD	GLU	L	123	-0.272	15.981	50.545	1.00	89.26	L	C
ATOMO	962	OE1	GLU	L	123	-1.246	15.550	49.890	1.00	82.90	L	O
ATOMO	963	OE2	GLU	L	123	0.266	17.095	50.351	1.00	95.75	L	O
ATOMO	964	N	GLN	L	124	2.856	11.556	50.935	1.00	55.07	L	N
ATOMO	965	CA	GLN	L	124	3.357	10.311	50.384	1.00	54.12	L	C
ATOMO	966	C	GLN	L	124	3.868	9.459	51.532	1.00	52.45	L	C
ATOMO	967	O	GLN	L	124	3.770	8.229	51.505	1.00	49.04	L	O
ATOMO	968	CB	GLN	L	124	4.490	10.568	49.401	1.00	55.78	L	C
ATOMO	969	CG	GLN	L	124	5.223	9.297	49.028	1.00	56.57	L	C
ATOMO	970	CD	GLN	L	124	6.372	9.546	48.103	1.00	50.07	L	C
ATOMO	971	OE1	GLN	L	124	6.949	10.636	48.087	1.00	46.99	L	O
ATOMO	972	NE2	GLN	L	124	6.730	8.534	47.329	1.00	51.34	L	N
ATOMO	973	N	LEU	L	125	4.421	10.131	52.537	1.00	52.12	L	N
ATOMO	974	CA	LEU	L	125	4.955	9.455	53.708	1.00	55.42	L	C
ATOMO	975	C	LEU	L	125	3.856	8.732	54.463	1.00	62.18	L	C
ATOMO	976	O	LEU	L	125	4.020	7.573	54.852	1.00	63.10	L	O
ATOMO	977	CB	LEU	L	125	5.655	10.456	54.626	1.00	51.50	L	C
ATOMO	978	CG	LEU	L	125	7.041	10.877	54.130	1.00	58.49	L	C
ATOMO	979	CD1	LEU	L	125	7.614	11.993	54.997	1.00	55.80	L	C
ATOMO	980	CD2	LEU	L	125	7.955	9.657	54.132	1.00	41.53	L	C
ATOMO	981	N	THR	L	126	2.728	9.405	54.666	1.00	67.91	L	N
ATOMO	982	CA	THR	L	126	1.625	8.772	55.374	1.00	74.12	L	C
ATOMO	983	C	THR	L	126	1.338	7.457	54.665	1.00	72.07	L	C
ATOMO	984	O	THR	L	126	0.825	6.519	55.259	1.00	74.16	L	O
ATOMO	985	CB	THR	L	126	0.341	9.643	55.362	1.00	74.87	L	C
ATOMO	986	OG1	THR	L	126	-0.109	9.818	54.015	1.00	89.50	L	O
ATOMO	987	CG2	THR	L	126	0.604	11.&04	55.982	1.00	77.06	L	C
ATOMO	988	N	SER	L	127	1.690	7.401	53.386	1.00	73.54	L	N
ATOMO	989	CA	SER	L	127	1.476	6.210	52.574	1.00	74.09	L	C
ATOMO	990	C	SER	L	127	2.543	5.136	52.794	1.00	71.41	L	C
ATOMO	991	O	SER	L	127	2.361	3.990	52.400	1.00	68.13	L	O
ATOMO	992	CB	SER	L	127	1.434	6.597	51.093	1.00	75.35	L	C,
ATOMO	993	OG	SER	L	127	1.480	5.449	50.265	1.00	79.24	L	O
ATOMO	994	N	GLY	L	128	3.655	5.508	53.417	1.00	67.28	L	N
ATOMO	995	CA	GLY	L	128	4.709	4.542	53.670	1.00	63.17	L	C

ATOMO	996	C	GLY	L	128	5.868	4.598	52.670	1.00	61.71	L	C
ATOMO	997	O	GLY	L	128	6.795	3.799	52.708	1.00	55.67	L	O
ATOMO	998	N	GLY	L	129	5.776	5.630	51.815	1.00	60.01	L	N
ATOMO	999	CA	GLY	L	129	6.789	5.742	50.784	1.00	51.52	L	C
ATOMO	1000	C	GLY	L	129	7.540	7.051	50.994	1.00	54.47	L	C
ATOMO	1001	O	GLY	L	129	7.077	7.936	51.711	1.00	56.91	L	O
ATOMO	1002	N	ALA	L	130	8.711	7.162	50.390	1.00	49.98	L	N
ATOMO	1003	CA	ALA	L	130	9.509	8.360	50.512	1.00	43.26	L	C
ATOMO	1004	C	ALA	L	130	10.162	8.574	49.169	1.00	44.36	L	C
ATOMO	1005	O	ALA	L	130	10.851	7.697	48.658	1.00	44.31	L	O
ATOMO	1006	CB	ALA	L	130	10.563	8.188	51.586	1.00	51.51	L	C
ATOMO	1007	N	SER	L	131	9.915	9.733	48.581	1.00	44.50	L	N
ATOMO	1008	CA	SER	L	131	10.498	10.057	47.297	1.00	40.37	L	C
ATOMO	1009	C	SER	L	131	11.226	11.385	47.391	1.00	43.32	L	C
ATOMO	1010	O	SER	L	131	10.664	12.402	47.807	1.00	48.95	L	O
ATOMO	1011	CB	SER	L	131	9.419	10.114	46.214	1.00	38.70	L	C
ATOMO	1012	OG	SER	L	131	8.904	8.820	45.949	1.00	36.52	L	O
ATOMO	1013	N	VAL	L	132	12.497	11.354	47.032	1.00	38.46	L	N
ATOMO	1014	CA	VAL	L	132	13.311	12.543	47.049	1.00	34.22	L	C
ATOMO	1015	C	VAL	L	132	13.461	12.881	45.579	1.00	39.02	L	C
ATOMO	1016	O	VAL	L	132	13.935	12.066	44.797	1.00	42.97	L	O
ATOMO	1017	CB	VAL	L	132	14.666	12.237	47.658	1.00	38.34	L	C
ATOMO	1018	CG1	VAL	L	132	15.373	13.520	48.062	1.00	35.88	L	C
ATOMO	1019	CG2	VAL	L	132	14.473	11.310	48.833	1.00	45.84	L	C
ATOMO	1020	N	VAL	L	133	13.023	14.070	45.191	1.00	35.71	L	N
ATOMO	1021	CA	VAL	L	133	13.118	14.457	43.799	1.00	35.51	L	C
ATOMO	1022	C	VAL	L	133	14.107	15.610	43.629	1.00	35.39	L	C
ATOMO	1023	O	VAL	L	133	14.332	16.406	44.537	1.00	32.94	L	O
ATOMO	1024	CB	VAL	L	133	11.716	14.809	43.225	1.00	23.82	L	C
ATOMO	1025	CG1	VAL	L	133	11.857	15.359	41.830	1.00	27.79	L	C
ATOMO	1026	CG2	VAL	L	133	10.822	13.581	43.226	1.00	38.91	L	C
ATOMO	1027	N	CYS	L	134	14.724	15.667	42.460	1.00	38.30	L	N
ATOMO	1028	CA	CYS	L	134	15.705	16.689	42.189	1.00	41.29	L	C
ATOMO	1029	C	CYS	L	134	15.527	17.183	40.758	1.00	42.64	L	C
ATOMO	1030	O	CYS	L	134	15.368	16.388	39.829	1.00	43.51	L	O
ATOMO	1031	CB	CYS	L	134	17.102	16.104	42.397	1.00	38.37	L	C
ATOMO	1032	SG	CYS	L	134	18.395	17.355	42.642	1.00	65.37	L	S
ATOMO	1033	N	PHE	L	135	15.519	18.502	40.590	1.00	42.83	L	N
ATOMO	1034	CA	PHE	L	135	15.365	19.106	39.270	1.00	38.04	L	C
ATOMO	1035	C	PHE	L	135	16.669	19.732	38.820	1.00	35.38	L	C
ATOMO	1036	O	PHE	L	135	17.424	20.277	39.616	1.00	38.80	L	O
ATOMO	1037	CB	PHE	L	135	14.276	20.193	39.268	1.00	34.74	L	C
ATOMO	1038	CG	PHE	L	135	12.878	19.664	39.381	1.00	31.55	L	C
ATOMO	1039	CD1	PHE	L	135	12.434	18.652	38.546	1.00	32.18	L	C
ATOMO	1040	CD2	PHE	L	135	11.995	20.197	40.313	1.00	35.76	L	C
ATOMO	1041	CE1	PHE	L	135	11.132	18.177	38.635	1.00	31.56	L	C
ATOMO	1042	CE2	PHE	L	135	10.690	19.726	40.408	1.00	27.93	L	C
ATOMO	1043	CZ	PHE	L	135	10.261	18.711	39.563	1.00	30.83	L	C
ATOMO	1044	N	LEU	L	136	16.926	19.620	37.530	1.00	31.81	L	N
ATOMO	1045	CA	LEU	L	136	18.103	20.184	36.907	1.00	31.58	L	C
ATOMO	1046	C	LEU	L	136	17.500	20.856	35.680	1.00	35.59	L	C
ATOMO	1047	O	LEU	L	136	17.302	20.232	34.638	1.00	34.85	L	O
ATOMO	1048	CB	LEU	L	136	19.096	19.076	36.522	1.00	29.55	L	C
ATOMO	1049	CG	LEU	L	136	19.940	18.497	37.674	1.00	39.59	L	C
ATOMO	1050	CD1	LEU	L	136	19.073	17.684	38.639	1.00	28.48	L	C
ATOMO	1051	CD2	LEU	L	136	21.050	17.626	37.114	1.00	33.08	L	C
ATOMO	1052	N	ASN	L	137	17.183	22.134	35.815	1.00	35.66	L	N
ATOMO	1053	CA	ASN	L	137	16.554	22.851	34.723	1.00	35.50	L	C
ATOMO	1054	C	ASN	L	137	17.380	23.822	33.891	1.00	30.57	L	C
ATOMO	1055	O	ASN	L	137	18.269	24.511	34.382	1.00	31.68	L	O

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ÁTOMO	1056	CB	ASN	L	137	15.321	23.563	35.260	1.00	39.89	L	C
ÁTOMO	1057	CG	ASN	L	137	14.334	22.601	35.894	1.00	35.35	L	C
ÁTOMO	1058	OD1	ASN	L	137	13.480	23.001	36.681	1.00	34.80	L	O
ÁTOMO	1059	ND2	ASN	L	137	14.444	21.328	35.545	1.00	34.00	L	N
ÁTOMO	1060	N	ASN	L	138	17.042	23.843	32.609	1.00	33.92	L	N
ÁTOMO	1061	CA	ASN	L	138	17.607	24.760	31.601	1.00	38.60	L	C
ÁTOMO	1062	C	ASN	L	138	19.153	24.748	31.533	1.00	41.40	L	C
ÁTOMO	1063	O	ASN	L	138	19.819	25.738	31.809	1.00	48.42	L	O
ÁTOMO	1064	CB	ASN	L	138	17.111	26.173	31.913	1.00	36.37	L	C
ÁTOMO	1065	CG	ASN	L	138	15.615	26.150	32.093	1.00	34.07	L	C
ÁTOMO	1066	OD1	ASN	L	138	15.095	26.138	33.205	1.00	52.45	L	O
ÁTOMO	1067	ND2	ASN	L	138	14.906	26.139	30.951	1.00	45.49	L	N
ÁTOMO	1068	N	PHE	L	139	19.758	23.640	31.136	1.00	36.88	L	N
ÁTOMO	1069	CA	PHE	L	139	21.208	23.590	31.028	1.00	36.96	L	C
ÁTOMO	1070	C	PHE	L	139	21.584	23.275	29.577	1.00	38.99	L	C
ÁTOMO	1071	O	PHE	L	139	20.727	22.950	28.756	1.00	31.96	L	O
ÁTOMO	1072	CB	PHE	L	139	21.777	22.529	31.992	1.00	34.96	L	C
ÁTOMO	1073	CG	PHE	L	139	21.177	21.174	31.814	1.00	22.71	L	C
ÁTOMO	1074	CD1	PHE	L	139	21.545	20.373	30.746	1.00	28.85	L	C
ÁTOMO	1075	CD2	PHE	L	139	20.192	20.726	32.677	1.00	30.19	L	C
ÁTOMO	1076	CE1	PHE	L	139	20.941	19.152	30.533	1.00	26.26	L	C
ÁTOMO	1077	CE2	PHE	L	139	19.579	19.504	32.476	1.00	29.02	L	C
ÁTOMO	1078	CZ	PHE	L	139	19.952	18.712	31.401	1.00	29.39	L	C
ÁTOMO	1079	N	TYR	L	140	22.865	23.389	29.257	1.00	44.67	L	N
ÁTOMO	1080	CA	TYR	L	140	23.308	23.105	27.908	1.00	42.78	L	C
ÁTOMO	1081	C	TYR	L	140	24.811	22.904	27.884	1.00	42.60	L	C
ÁTOMO	1082	O	TYR	L	140	25.560	23.667	28.495	1.00	40.34	L	O
ÁTOMO	1083	CB	TYR	L	140	22.903	24.244	26.960	1.00	39.66	L	C
ÁTOMO	1084	CG	TYR	L	140	23.239	23.950	25.519	1.00	38.62	L	C
ÁTOMO	1085	CD1	TYR	L	140	24.538	24.074	25.057	1.00	38.52	L	C
ÁTOMO	1086	CD2	TYR	L	140	22.274	23.465	24.645	1.00	41.68	L	C
ÁTOMO	1087	CE1	TYR	L	140	24.875	23.722	23.780	1.00	40.62	L	C
ÁTOMO	1088	CE2	TYR	L	140	22.600	23.104	23.353	1.00	42.88	L	C
ÁTOMO	1089	CZ	TYR	L	140	23.910	23.233	22.927	1.00	48.74	L	C
ÁTOMO	1090	OH	TYR	L	140	24.273	22.864	21.651	1.00	52.93	L	O
ÁTOMO	1091	N	PRO	L	141	25.274	21.883	27.148	1.00	43.92	L	N
ÁTOMO	1092	CA	PRO	L	141	24.451	20.950	26.365	1.00	46.65	L	C
ÁTOMO	1093	C	PRO	L	141	23.688	19.903	27.185	1.00	49.80	L	C
ÁTOMO	1094	O	PRO	L	141	23.702	19.934	28.414	1.00	56.01	L	O
ÁTOMO	1095	CB	PRO	L	141	25.466	20.325	25.414	1.00	45.66	L	C
ÁTOMO	1096	CG	PRO	L	141	26.689	20.271	26.256	1.00	41.16	L	C
ÁTOMO	1097	CD	PRO	L	141	26.706	21.618	26.937	1.00	45.29	L	C
ÁTOMO	1098	N	LYS	L	142	23.037	18.968	26.494	1.00	47.16	L	N
ÁTOMO	1099	CA	LYS	L	142	22.055	18.059	27.073	1.00	50.49	L	C
ÁTOMO	1100	C	LYS	L	142	22.714	16.954	27.908	1.00	49.27	L	C
ÁTOMO	1101	O	LYS	L	142	22.068	16.216	28.642	1.00	52.27	L	O
ÁTOMO	1102	CB	LYS	L	142	21.248	17.439	25.931	1.00	47.73	L	C
ÁTOMO	1103	CG	LYS	L	142	22.141	16.757	24.892	1.00	63.02	L	C
ÁTOMO	1104	CD	LYS	L	142	21.345	15.845	23.957	1.00	58.35	L	C
ÁTOMO	1105	CE	LYS	L	142	21.853	15.899	22.512	1.00	73.15	L	C
ÁTOMO	1106	NZ	LYS	L	142	23.168	15.269	22.427	1.00	96.24	L	N
ÁTOMO	1107	N	ASP	L	143	24.044	16.825	27.745	1.00	50.43	L	N
ÁTOMO	1108	CA	ASP	L	143	24.763	15.768	28.453	1.00	55.24	L	C
ÁTOMO	1109	C	ASP	L	143	25.076	16.163	29.902	1.00	53.06	L	C
ÁTOMO	1110	O	ASP	L	143	25.811	17.102	30.180	1.00	60.12	L	O
ÁTOMO	1111	CB	ASP	L	143	26.070	15.493	27.705	1.00	58.45	L	C
ÁTOMO	1112	CG	ASP	L	143	25.787	14.678	26.452	1.00	74.50	L	C
ÁTOMO	1113	OD1	ASP	L	143	25.958	15.224	25.362	1.00	87.12	L	O
ÁTOMO	1114	OD2	ASP	L	143	25.432	13.507	26.575	1.00	96.79	L	O
ÁTOMO	1115	N	ILE	L	144	24.460	15.425	30.845	1.00	49.84	L	N

ÁTOMO	1116	CA	ILE L	144	24.740	15.678	32.255	1.00	43.94 L	C
ÁTOMO	1117	C	ILE L	144	24.481	14.437	33.110	1.00	44.67 L	C
ÁTOMO	1118	O	ILE L	144	23.746	13.529	32.743	1.00	46.34 L	O
ÁTOMO	1119	CB	ILE L	144	23.852	16.828	32.730	1.00	47.26 L	C
ÁTOMO	1120	CG1	ILE L	144	24.187	17.188	34.181	1.00	39.55 L	C
ÁTOMO	1121	CG2	ILE L	144	22.377	16.390	32.685	1.00	27.85 L	C
ÁTOMO	1122	CD1	ILE L	144	23.503	18.480	34.636	1.00	37.00 L	C
ÁTOMO	1123	N	ASN L	145	25.153	14.402	34.274	1.00	47.86 L	N
ÁTOMO	1124	CA	ASN L	145	24.977	13.263	35.167	1.00	56.19 L	C
ÁTOMO	1125	C	ASN L	145	24.543	13.703	36.565	1.00	48.41 L	C
ÁTOMO	1126	O	ASN L	145	24.971	14.722	37.097	1.00	51.90 L	O
ÁTOMO	1127	CB	ASN L	145	26.308	12.514	35.257	1.00	58.17 L	C
ÁTOMO	1128	CG	ASN L	145	26.692	11.994	33.896	1.00	79.58 L	C
ÁTOMO	1129	OD1	ASN L	145	25.875	11.463	33.148	1.00	74.98 L	O
ÁTOMO	1130	ND2	ASN L	145	27.992	12.137	33.582	1.00	99.92 L	N
ÁTOMO	1131	N	VAL L	146	23.627	12.907	37.144	1.00	47.14 L	N
ÁTOMO	1132	CA	VAL L	146	23.220	13.153	38.521	1.00	41.80 L	C
ÁTOMO	1133	C	VAL L	146	23.646	12.000	39.432	1.00	41.27 L	C
ÁTOMO	1134	O	VAL L	146	23.665	10.840	39.043	1.00	41.13 L	O
ÁTOMO	1135	CB	VAL L	146	21.700	13.305	38.550	1.00	38.57 L	C
ÁTOMO	1136	CG1	VAL L	146	21.222	13.420	39.996	1.00	48.70 L	C
ÁTOMO	1137	CG2	VAL L	146	21.291	14.552	37.788	1.00	52.23 L	C
ÁTOMO	1138	N	LYS L	147	24.019	12.322	40.657	1.00	39.29 L	N
ÁTOMO	1139	CA	LYS L	147	24.434	11.308	41.580	1.00	43.68 L	C
ÁTOMO	1140	C	LYS L	147	23.757	11.587	42.893	1.00	43.43 L	C
ÁTOMO	1141	O	LYS L	147	23.829	12.680	43.439	1.00	47.08 L	O
ÁTOMO	1142	CB	LYS L	147	25.952	11.402	41.744	1.00	43.41 L	C
ÁTOMO	1143	CG	LYS L	147	26.521	10.238	42.559	1.00	49.00 L	C
ÁTOMO	1144	CD	LYS L	147	27.994	10.448	42.918	1.00	69.56 L	C
ÁTOMO	1145	CE	LYS L	147	28.883	10.597	41.679	1.00	79.19 L	C
ÁTOMO	1146	NZ	LYS L	147	29.949	11.561	41.950	1.00	85.36 L	N
ÁTOMO	1147	N	TRP L	148	23.051	10.591	43.410	1.00	49.19 L	N
ÁTOMO	1148	CA	TRP L	148	22.371	10.756	44.682	1.00	45.19 L	C
ÁTOMO	1149	C	TRP L	148	23.305	10.250	45.751	1.00	45.91 L	C
ÁTOMO	1150	O	TRP L	148	24.076	9.322	45.529	1.00	43.97 L	O
ÁTOMO	1151	CB	TRP L	148	21.065	9.964	44.727	1.00	39.66 L	C
ÁTOMO	1152	CG	TRP L	148	19.940	10.601	43.968	1.00	42.61 L	C
ÁTOMO	1153	CD1	TRP L	148	19.564	10.346	42.677	1.00	33.06 L	C
ÁTOMO	1154	CD2	TRP L	148	19.029	11.586	44.464	1.00	42.82 L	C
ÁTOMO	1155	NE1	TRP L	148	18.469	11.107	42.344	1.00	30.84 L	N
ÁTOMO	1156	CE2	TRP L	148	18.121	11.879	43.422	1.00	35.66 L	C
ÁTOMO	1157	CE3	TRP L	148	18.887	12.247	45.687	1.00	32.84 L	C
ÁTOMO	1158	CZ2	TRP L	148	17.086	12.807	43.570	1.00	29.88 L	C
ÁTOMO	1159	CZ3	TRP L	148	17.858	13.162	45.831	1.00	40.22 L	C
ÁTOMO	1160	CH2	TRP L	148	16.971	13.434	44.778	1.00	26.01 L	C
ÁTOMO	1161	N	LYS L	149	23.241	10.883	46.911	1.00	47.40 L	N
ÁTOMO	1162	CA	LYS L	149	24.072	10.504	48.036	1.00	41.22 L	C
ÁTOMO	1163	C	LYS L	149	23.260	10.572	49.313	1.00	39.97 L	C
ÁTOMO	1164	O	LYS L	149	22.582	11.560	49.554	1.00	49.04 L	O
ÁTOMO	1165	CB	LYS L	149	25.267	11.454	48.162	1.00	39.19 L	C
ÁTOMO	1166	CG	LYS L	149	26.501	11.060	47.373	1.00	35.97 L	C
ÁTOMO	1167	CD	LYS L	149	27.679	11.917	47.817	1.00	45.37 L	C
ÁTOMO	1168	CE	LYS L	149	28.982	11.466	47.181	1.00	70.51 L	C
ÁTOMO	1169	NZ	LYS L	149	30.156	12.182	47.759	1.00	67.81 L	N
ÁTOMO	1170	N	ILE L	150	23.309	9.524	50.122	1.00	38.16 L	N
ÁTOMO	1171	CA	ILE L	150	22.606	9.544	51.396	1.00	38.62 L	C
ÁTOMO	1172	C	ILE L	150	23.624	9.285	52.498	1.00	39.38 L	C
ÁTOMO	1173	O	ILE L	150	24.240	8.227	52.546	1.00	42.34 L	O
ÁTOMO	1174	CB	ILE L	150	21.501	8.485	51.476	1.00	35.52 L	C
ÁTOMO	1175	CG1	ILE L	150	20.483	8.700	50.351	1.00	34.00 L	C

ÁTOMO	1176	CG2	ILE	L	150	20.834	8.565	52.845	1.00	30.49	L	C
ÁTOMO	1177	CD1	ILE	L	150	19.319	7.730	50.350	1.00	21.56	L	C
ÁTOMO	1178	N	ASP	L	151	23.799	10.263	53.379	1.00	42.16	L	N
ÁTOMO	1179	CA	ASP	L	151	24.763	10.162	54.468	1.00	43.08	L	C
ÁTOMO	1180	C	ASP	L	151	26.175	9.985	53.920	1.00	47.39	L	C
ÁTOMO	1181	O	ASP	L	151	26.964	9.180	54.422	1.00	55.21	L	O
ÁTOMO	1182	CB	ASP	L	151	24.408	9.001	55.395	1.00	38.76	L	C
ÁTOMO	1183	CG	ASP	L	151	23.255	9.328	56.307	1.00	41.76	L	C
ÁTOMO	1184	OD1	ASP	L	151	22.800	10.490	56.289	1.00	53.05	L	O
ÁTOMO	1185	OD2	ASP	L	151	22.806	8.434	57.048	1.00	49.41	L	O
ÁTOMO	1186	N	GLY	L	152	26.477	10.744	52.873	1.00	48.87	L	N
ÁTOMO	1187	CA	GLY	L	152	27.819	10.665	52.287	1.00	46.37	L	C
ÁTOMO	1188	C	GLY	L	152	27.938	9.582	51.203	1.00	49.77	L	C
ÁTOMO	1189	O	GLY	L	152	28.783	9.629	50.322	1.00	58.18	L	O
ÁTOMO	1190	N	SER	L	153	27.077	8.554	51.312	1.00	48.01	L	N
ÁTOMO	1191	CA	SER	L	153	27.163	7.440	50.371	1.00	52.83	L	C
ÁTOMO	1192	C	SER	L	153	26.357	7.694	49.095	1.00	45.68	L	C
ÁTOMO	1193	O	SER	L	153	25.294	8.299	49.106	1.00	49.11	L	O
ÁTOMO	1194	CB	SER	L	153	26.634	6.189	51.082	1.00	54.79	L	C
ÁTOMO	1195	OG	SER	L	153	27.612	5.715	52.009	1.00	69.58	L	O
ÁTOMO	1196	N	GLU	L	154	26.929	7.245	47.963	1.00	43.38	L	N
ÁTOMO	1197	CA	GLU	L	154	26.197	7.333	46.703	1.00	50.29	L	C
ÁTOMO	1198	C	GLU	L	154	25.117	6.253	46.615	1.00	49.87	L	C
ÁTOMO	1199	O	GLU	L	154	25.273	5.136	47.088	1.00	56.57	L	O
ÁTOMO	1200	CB	GLU	L	154	27.194	7.167	45.553	1.00	45.67	L	C
ÁTOMO	1201	CG	GLU	L	154	26.582	6.459	44.340	1.00	53.31	L	C
ÁTOMO	1202	CD	GLU	L	154	27.464	6.677	43.126	1.00	72.03	L	C
ÁTOMO	1203	OE1	GLU	L	154	28.674	6.584	43.252	1.00	56.01	L	O
ÁTOMO	1204	OE2	GLU	L	154	26.928	6.957	42.059	1.00	70.34	L	O
ÁTOMO	1205	N	ARG	L	155	23.977	6.589	46.019	1.00	49.27	L	N
ÁTOMO	1206	CA	ARG	L	155	22.910	5.615	45.804	1.00	47.42	L	C
ÁTOMO	1207	C	ARG	L	155	22.739	5.463	44.293	1.00	48.15	L	C
ÁTOMO	1208	O	ARG	L	155	22.790	6.446	43.554	1.00	49.72	L	O
ÁTOMO	1209	CB	ARG	L	155	21.584	6.075	46.418	1.00	45.78	L	C
ÁTOMO	1210	CG	ARG	L	155	21.489	5.965	47.938	1.00	46.29	L	C
ÁTOMO	1211	CD	ARG	L	155	21.711	4.544	48.452	1.00	44.74	L	C
ÁTOMO	1212	NE	ARG	L	155	21.593	4.481	49.908	1.00	46.03	L	N
ÁTOMO	1213	CZ	ARG	L	155	20.450	4.313	50.565	1.00	47.68	L	C
ÁTOMO	1214	NH1	ARG	L	155	19.314	4.173	49.902	1.00	57.00	L	N
ÁTOMO	1215	NH2	ARG	L	155	20.434	4.323	51.888	1.00	44.35	L	N
ÁTOMO	1216	N	GLN	L	156	22.559	4.230	43.836	1.00	47.00	L	N
ÁTOMO	1217	CA	GLN	L	156	22.375	3.956	42.416	1.00	50.50	L	C
ÁTOMO	1218	C	GLN	L	156	21.002	3.359	42.205	1.00	48.51	L	C
ÁTOMO	1219	O	GLN	L	156	20.343	3.585	41.197	1.00	47.82	L	O
ÁTOMO	1220	C3	GLN	L	156	23.392	2.933	41.914	1.00	57.57	L	C
ÁTOMO	1221	CG	GLN	L	156	24.813	3.404	41.730	1.00	69.42	L	C
ÁTOMO	1222	CD	GLN	L	156	25.459	2.736	40.522	1.00	87.97	L	C
ÁTOMO	1223	OE1	GLN	L	156	25.401	1.514	40.364	1.00	94.85	L	O
ÁTOMO	1224	NE2	GLN	L	156	26.072	3.541	39.658	1.00	96.03	L	N
ÁTOMO	1225	N	ASN	L	157	20.584	2.583	43.188	1.00	50.75	L	N
ÁTOMO	1226	CA	ASN	L	157	19.323	1.881	43.134	1.00	56.06	L	C
ÁTOMO	1227	C	ASN	L	157	18.104	2.729	43.475	1.00	51.01	L	C
ÁTOMO	1228	O	ASN	L	157	18.185	3.662	44.263	1.00	54.53	L	O
ÁTOMO	1229	CB	ASN	L	157	19.434	0.668	44.060	1.00	63.75	L	C
ÁTOMO	1230	CG	ASN	L	157	20.754	-0.097	43.856	1.00	77.57	L	C
ÁTOMO	1231	OD1	ASN	L	157	20.935	-0.797	42.852	1.00	83.50	L	O
ÁTOMO	1232	ND2	ASN	L	157	21.689	0.060	44.800	1.00	79.77	L	N
ÁTOMO	1233	N	GLY	L	158	16.978	2.402	42.852	1.00	46.82	L	N
ÁTOMO	1234	CA	GLY	L	158	15.743	3.113	43.113	1.00	36.61	L	C
ÁTOMO	1235	C	GLY	L	158	15.631	4.514	42.556	1.00	33.11	L	C

ÁTOMO	1236	O	GLY	L	158	14.882	5.328	43.086	1.00	37.66	L	O
ÁTOMO	1237	N	VAL	L	159	16.364	4.818	41.496	1.00	33.40	L	N
ÁTOMO	1238	CA	VAL	L	159	16.278	6.143	40.921	1.00	37.20	L	C
ÁTOMO	1239	C	VAL	L	159	15.794	6.096	39.489	1.00	39.79	L	C
ÁTOMO	1240	O	VAL	L	159	16.196	5.238	38.717	1.00	50.88	L	O
ÁTOMO	1241	CB	VAL	L	159	17.631	6.855	40.954	1.00	37.60	L	C
ÁTOMO	1242	CG1	VAL	L	159	18.728	5.839	41.060	1.00	41.29	L	C
ÁTOMO	1243	CG2	VAL	L	159	17.804	7.709	39.689	1.00	35.05	L	C
ÁTOMO	1244	N	LEU	L	160	14.903	7.012	39.142	1.00	40.63	L	N
ÁTOMO	1245	CA	LEU	L	160	14.381	7.088	37.792	1.00	40.01	L	C
ÁTOMO	1246	C	LEU	L	160	14.539	8.525	37.298	1.00	35.48	L	C
ÁTOMO	1247	O	LEU	L	160	14.189	9.473	37.996	1.00	35.80	L	O
ÁTOMO	1248	CB	LEU	L	160	12.920	6.621	37.755	1.00	41.10	L	C
ÁTOMO	1249	CG	LEU	L	160	12.712	5.138	38.108	1.00	47.84	L	C
ÁTOMO	1250	CD1	LEU	L	160	11.223	4.831	38.132	1.00	64.80	L	C
ÁTOMO	1251	CD2	LEU	L	160	13.380	4.229	37.103	1.00	43.08	L	C
ÁTOMO	1252	N	ASN	L	161	15.110	8.661	36.104	1.00	33.90	L	N
ÁTOMO	1253	CA	ASN	L	161	15.383	9.949	35.479	1.00	32.64	L	C
ÁTOMO	1254	C	ASN	L	161	14.524	10.192	34.260	1.00	33.50	L	C
ÁTOMO	1255	O	ASN	L	161	14.149	9.265	33.559	1.00	38.43	L	O
ÁTOMO	1256	CB	ASN	L	161	16.828	10.007	35.003	1.00	38.36	L	C
ÁTOMO	1257	CG	ASN	L	161	17.823	9.762	36.101	1.00	37.26	L	C
ÁTOMO	1258	OD1	ASN	L	161	17.839	10.463	37.111	1.00	40.06	L	O
ÁTOMO	1259	ND2	ASN	L	161	18.678	8.769	35.902	1.00	32.15	L	N
ÁTOMO	1260	N	SER	L	162	14.249	11.452	33.976	1.00	31.12	L	N
ÁTOMO	1261	CA	SER	L	162	13.462	11.777	32.800	1.00	26.43	L	C
ÁTOMO	1262	C	SER	L	162	14.027	13.040	32.153	1.00	28.89	L	C
ÁTOMO	1263	O	SER	L	162	14.447	13.956	32.845	1.00	33.59	L	O
ÁTOMO	1264	CB	SER	L	162	12.006	11.972	33.194	1.00	22.50	L	C
ÁTOMO	1265	OG	SER	L	162	11.191	11.991	32.046	1.00	37.37	L	O
ÁTOMO	1266	N	TRP	L	163	14.054	13.088	30.829	1.00	33.44	L	N
ÁTOMO	1267	CA	TRP	L	163	14.586	14.262	30.131	1.&0	28.63	L	C
ÁTOMO	1268	C	TRP	L	163	13.556	14.875	29.206	1.00	27.81	L	C
ÁTOMO	1269	O	TRP	L	163	12.871	14.167	28.468	1.00	33.25	L	O
ÁTOMO	1270	CB	TRP	L	163	15.817	13.888	29.293	1.00	28.11	L	C
ÁTOMO	1271	CG	TRP	L	163	16.950	13.331	30.084	1.00	30.72	L	C
ÁTOMO	1272	CD1	TRP	L	163	18.060	13.999	30.514	1.00	34.81	L	C
ÁTOMO	1273	CD2	TRP	L	163	17.093	11.981	30.534	1.00	37.12	L	C
ÁTOMO	1274	NE1	TRP	L	163	18.886	13.146	31.201	1.00	31.24	L	N
ÁTOMO	1275	CE2	TRP	L	163	18.317	11.899	31.227	1.00	36.59	L	C
ÁTOMO	1276	CE3	TRP	L	163	16.304	10.829	30.419	1.00	42.13	L	C
ÁTOMO	1277	CZ2	TRP	L	163	18.774	10.712	31.801	1.00	44.40	L	C
ÁTOMO	1278	CZ3	TRP	L	163	16.761	9.644	30.996	1.00	49.83	L	C
ÁTOMO	1279	CH2	TRP	L	163	17.983	9.598	31.675	1.00	29.31	L	C
ÁTOMO	1280	N	THR	L	164	13.463	16.199	29.235	1.00	27.83	L	N
ÁTOMO	1281	CA	THR	L	164	12.531	16.916	28.377	1.00	29.47	L	C
ÁTOMO	1282	C	THR	L	164	13.180	17.119	27.013	1.00	27.57	L	C
ÁTOMO	1283	O	THR	L	164	14.379	16.911	26.867	1.00	32.97	L	O
ÁTOMO	1284	CB	THR	L	164	12.215	18.292	28.955	1.00	29.66	L	C
ÁTOMO	1285	OG1	THR	L	164	13.429	19.023	29.111	1.00	25.23	L	O
ÁTOMO	1286	CG2	THR	L	164	11.549	18.165	30.299	1.00	33.20	L	C
ÁTOMO	1287	N	ASP	L	165	12.393	17.499	26.009	1.00	32.30	L	N
ÁTOMO	1288	CA	ASP	L	165	12.966	17.780	24.690	1.00	37.75	L	C
ÁTOMO	1289	C	ASP	L	165	13.614	19.155	24.807	1.00	34.76	L	C
ÁTOMO	1290	O	ASP	L	165	13.493	19.815	25.832	1.00	41.05	L	O

ÁTOMO	1291	CB	ASP	L	165	11.890	17.835	23.597	1.00	44.29	L	C
ÁTOMO	1292	CG	ASP	L	165	11.479	16.464	23.105	1.00	45.32	L	C
ÁTOMO	1293	OD1	ASP	L	165	10.645	15.818	23.769	1.00	54.61	L	O
ÁTOMO	1294	OD2	ASP	L	165	11.998	16.033	22.052	1.00	65.66	L	O
ÁTOMO	1295	N	GLN	L	166	14.294	19.615	23.772	1.00	34.89	L	N
ÁTOMO	1296	CA	GLN	L	166	14.921	20.923	23.884	1.00	33.11	L	C
ÁTOMO	1297	C	GLN	L	166	13.882	22.031	23.890	1.00	34.33	L	C
ÁTOMO	1298	O	GLN	L	166	12.917	22.001	23.126	1.00	40.73	L	O
ÁTOMO	1299	CB	GLN	L	166	15.927	21.130	22.754	1.00	32.34	L	C
ÁTOMO	1300	CG	GLN	L	166	16.566	22.492	22.716	1.00	25.94	L	C
ÁTOMO	1301	CD	GLN	L	166	17.735	22.524	21.767	1.00	24.29	L	C
ÁTOMO	1302	OE1	GLN	L	166	17.691	21.915	20.703	1.00	29.03	L	O
ÁTOMO	1303	NE2	GLN	L	166	18.789	23.234	22.141	1.00	39.54	L	N
ÁTOMO	1304	N	ASP	L	167	14.084	23.000	24.775	1.00	36.26	L	N
ÁTOMO	1305	CA	ASP	L	167	13.244	24.183	24.911	1.00	37.77	L	C
ÁTOMO	1306	C	ASP	L	167	13.133	24.919	23.578	1.00	38.98	L	C
ÁTOMO	1307	O	ASP	L	167	14.089	25.044	22.826	1.00	45.84	L	O
ÁTOMO	1308	CB	ASP	L	167	13.869	25.102	25.965	1.00	39.01	L	C
ÁTOMO	1309	CG	ASP	L	167	12.825	26.104	26.438	1.00	50.62	L	C
ÁTOMO	1310	OD1	ASP	L	167	11.843	25.665	27.041	1.00	61.30	L	O
ÁTOMO	1311	OD2	ASP	L	167	13.003	27.301	26.214	1.00	65.60	L	O
ÁTOMO	1312	N	SER	L	168	11.907	25.373	23.265	1.00	39.91	L	N
ÁTOMO	1313	CA	SER	L	168	11.711	26.041	21.985	1.00	36.41	L	C
ÁTOMO	1314	C	SER	L	168	12.002	27.542	22.067	1.00	36.74	L	C
ÁTOMO	1315	O	SER	L	168	11.965	28.267	21.082	1.00	42.82	L	O
ÁTOMO	1316	CB	SER	L	168	10.268	25.802	21.535	1.00	34.55	L	C
ÁTOMO	1317	OG	SER	L	168	10.172	24.514	20.922	1.00	38.70	L	O
ÁTOMO	1318	N	LYS	L	169	12.279	28.009	23.301	1.00	41.00	L	N
ÁTOMO	1319	CA	LYS	L	169	12.476	29.440	23.491	1.00	40.71	L	C
ÁTOMO	1320	C	LYS	L	169	13.938	29.810	23.746	1.00	44.31	L	C
ÁTOMO	1321	O	LYS	L	169	14.524	30.641	23.065	1.00	47.38	L	O
ÁTOMO	1322	CB	LYS	L	169	11.596	29.896	24.654	1.00	50.40	L	C
ÁTOMO	1323	CG	LYS	L	169	10.226	30.371	24.164	1.00	64.25	L	C
ÁTOMO	1324	CD	LYS	L	169	9.232	30.585	25.307	1.00	92.37	L	C
ÁTOMO	1325	CE	LYS	L	169	7.980	31.351	24.858	1.00	99.86	L	C
ÁTOMO	1326	NZ	LYS	L	169	7.425	32.101	25.987	1.00	94.60	L	N
ÁTOMO	1327	N	ASP	L	170	14.514	29.200	24.799	1.00	45.97	L	N
ÁTOMO	1328	CA	ASP	L	170	15.922	29.466	25.091	1.00	46.90	L	C
ÁTOMO	1329	C	ASP	L	170	16.813	28.255	24.790	1.00	43.28	L	C
ÁTOMO	1330	O	ASP	L	170	17.967	28.170	25.193	1.00	47.78	L	O
ÁTOMO	1331	CB	ASP	L	170	16.053	29.878	26.560	1.00	48.00	L	C
ÁTOMO	1332	CG	ASP	L	170	15.574	28.743	27.455	1.00	48.03	L	C
ÁTOMO	1333	OD1	ASP	L	170	15.499	27.620	26.962	1.00	51.45	L	O
ÁTOMO	1334	OD2	ASP	L	170	15.296	28.988	28.627	1.00	84.97	L	O
ÁTOMO	1335	N	SER	L	171	16.209	27.271	24.096	1.00	46.86	L	N
ÁTOMO	1336	CA	SER	L	171	16.983	26.133	23.607	1.00	48.35	L	C
ÁTOMO	1337	C	SER	L	171	17.845	25.485	24.692	1.00	48.37	L	C
ÁTOMO	1338	O	SER	L	171	19.057	25.351	24.563	1.00	55.99	L	O
ÁTOMO	1339	CB	SER	L	171	17.872	26.628	22.467	1.00	45.20	L	C
ÁTOMO	1340	OG	SER	L	171	17.053	26.974	21.348	1.00	60.97	L	O
ÁTOMO	1341	N	THR	L	172	17.189	25.100	25.803	1.00	51.34	L	N
ÁTOMO	1342	CA	THR	L	172	17.921	24.407	26.856	1.00	44.78	L	C
ÁTOMO	1343	C	THR	L	172	17.399	22.982	27.059	1.00	42.17	L	C
ÁTOMO	1344	O	THR	L	172	16.466	22.535	26.405	1.00	45.97	L	O
ÁTOMO	1345	CB	THR	L	172	17.783	25.207	28.152	1.00	37.85	L	C
ÁTOMO	1346	OG1	THR	L	172	16.404	25.512	28.370	1.00	57.23	L	O
ÁTOMO	1347	CG2	THR	L	172	18.577	26.517	28.050	1.00	33.68	L	C
ÁTOMO	1348	N	TYR	L	173	17.892	22.288	28.069	1.00	44.08	L	N
ÁTOMO	1349	CA	TYR	L	173	17.364	20.993	28.442	1.00	40.50	L	C

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ÁTOMO	1350	C	TYR L 173	17.228	20.919	29.947	1.00	40.14	L	C
ÁTOMO	1351	O	TYR L 173	18.070	21.432	30.679	1.00	40.88	L	O
ÁTOMO	1352	CB	TYR L 173	18.299	19.877	28.014	1.00	32.40	L	C
ÁTOMO	1353	CG	TYR L 173	18.551	19.773	26.544	1.00	38.44	L	C
ÁTOMO	1354	CD1	TYR L 173	19.528	20.542	25.931	1.00	23.34	L	C
ÁTOMO	1355	CD2	TYR L 173	17.886	18.818	25.781	1.00	30.45	L	C
ÁTOMO	1356	CE1	TYR L 173	19.847	20.347	24.605	1.00	23.64	L	C
ÁTOMO	1357	CE2	TYR L 173	18.194	18.623	24.468	1.00	23.61	L	C
ÁTOMO	1358	CZ	TYR L 173	19.179	19.382	23.884	1.00	31.64	L	C
ÁTOMO	1359	OH	TYR L 173	19.533	19.124	22.587	1.00	50.61	L	O
ÁTOMO	1360	N	SER L 174	16.172	20.261	30.396	1.00	32.25	L	N
ÁTOMO	1361	CA	SER L 174	15.932	20.103	31.810	1.00	33.25	L	C
ÁTOMO	1362	C	SER L 174	15.820	18.624	32.103	1.00	31.14	L	C
ÁTOMO	1363	O	SER L 174	15.363	17.840	31.270	1.00	35.74	L	O
ÁTOMO	1364	CB	SER L 174	14.644	20.817	32.210	1.00	34.96	L	C
ÁTOMO	1365	OG	SER L 174	14.723	22.191	31.872	1.00	44.21	L	O
ÁTOMO	1366	N	MET L 175	16.264	18.235	33.283	1.00	32.45	L	N
ÁTOMO	1367	CA	MET L 175	16.185	16.848	33.665	1.00	33.65	L	C
ÁTOMO	1368	C	MET L 175	15.658	16.798	35.083	1.00	36.03	L	C
ÁTOMO	1369	O	MET L 175	15.931	17.675	35.895	1.00	37.60	L	O
ÁTOMO	1370	CB	MET L 175	17.555	16.169	33.576	1.00	34.51	L	C
ÁTOMO	1371	CG	MET L 175	18.065	15.622	34.890	1.00	33.17	L	C
ÁTOMO	1372	SD	MET L 175	18.885	14.022	34.685	1.00	50.79	L	S
ÁTOMO	1373	CE	MET L 175	17.718	12.956	35.395	1.00	51.77	L	C
ÁTOMO	1374	N	SER L 176	14.872	15.769	35.352	1.00	38.28	L	N
ÁTOMO	1375	CA	SER L 176	14.285	15.553	36.650	1.00	30.79	L	C
ÁTOMO	1376	C	SER L 176	14.794	14.211	37.167	1.00	33.00	L	C
ÁTOMO	1377	O	SER L176	14.968	13.256	36.388	1.00	36.35	L	O
ÁTOMO	1378	CB	SER L176	12.766	15.526	36.510	1.00	29.60	L	C
ÁTOMO	1379	OG	SER L176	12.140	15.055	37.680	1.00	25.85	L	O
ÁTOMO	1380	N	SER L177	15.044	14.137	38.473	1.00	34.20	L	N
ÁTOMO	1381	CA	SER L177	15.509	12.887	39.060	1.00	31.30	L	C
ÁTOMO	1382	C	SER L177	14.787	12.492	40.349	1.00	30.60	L	C
ÁTOMO	1383	O	SER L177	14.511	13.325	41.216	1.00	34.61	L	O
ÁTOMO	1384	CB	SER L177	17.004	12.939	39.306	1.00	22.17	L	C
ÁTOMO	1385	OG	SER L177	17.480	11.618	39.257	1.00	35.64	L	O
ÁTOMO	1386	N	THR L178	14.500	11.205	40.480	1.00	28.83	L	N
ÁTOMO	1387	CA	THR L178	13.783	10.744	41.646	1.00	28.12	L	C
ÁTOMO	1388	C	THR L178	14.378	9.497	42.287	1.00	33.56	L	C
ÁTOMO	1389	O	THR L178	14.527	8.460	41.644	1.00	34.19	L	O
ÁTOMO	1390	CB	THR L178	12.303	10.452	41.288	1.00	29.07	L	C
ÁTOMO	1391	OG1	THR L178	11.700	11.620	40.726	1.00	34.69	L	O
ÁTOMO	1392	CG2	THR L178	11.526	10.050	42.520	1.00	38.66	L	C
ÁTOMO	1393	N	LEU L179	14.717	9.609	43.565	1.00	37.13	L	N
ÁTOMO	1394	CA	LEU L179	15.238	8.478	44.313	1.00	37.36	L	C
ÁTOMO	1395	C	LEU L179	14.133	8.072	45.294	1.00	38.67	L	C
ÁTOMO	1396	O	LEU L179	13.803	8.813	46.219	1.00	46.22	L	O
ÁTOMO	1397	CB	LEU L179	16.513	8.852	45.076	1.00	38.33	L	C
ÁTOMO	1398	CG	LEU L179	16.937	7.711	46.013	1.00	39.81	L	C
ÁTOMO	1399	CD1	LEU L179	16.877	6.398	45.265	1.00	36.12	L	C
ÁTOMO	1400	CD2	LEU L179	18.331	7.964	46.568	1.00	42.75	L	C
ÁTOMO	1401	N	THR L180	13.549	6.905	45.083	1.00	35.66	L	N
ÁTOMO	1402	CA	THR L180	12.478	6.453	45.947	1.00	40.70	L	C
ÁTOMO	1403	C	THR L180	13.017	5.573	47.059	1.00	46.91	L	C
ÁTOMO	1404	O	THR L180	13.874	4.712	46.828	1.00	55.35	L	O
ÁTOMO	1405	CB	THR L180	11.420	5.660	45.155	1.00	42.81	L	C
ÁTOMO	1406	OG1	THR L180	10.983	6.437	44.033	1.00	53.11	L	O
ÁTOMO	1407	CG2	THR L180	10.227	5.338	46.032	1.00	40.36	L	C

ÁTOMO	1408	N	LEU L	181	12.502	5.796	48.264	1.00	44.68	L	N
ÁTOMO	1409	CA	LEU L	181	12.896	5.043	49.440	1.00	38.18	L	C
ÁTOMO	1410	C	LEU L	181	11.626	4.660	50.161	1.00	42.65	L	C
ÁTOMO	1411	O	LEU L	181	10.580	5.241	49.917	1.00	47.04	L	O
ÁTOMO	1412	CB	LEU L	181	13.720	5.920	50.375	1.00	36.56	L	C
ÁTOMO	1413	CG	LEU L	181	14.854	6.721	49.750	1.00	35.79	L	C
ÁTOMO	1414	CD1	LEU L	181	15.411	7.699	50.772	1.00	23.79	L	C
ÁTOMO	1415	CD2	LEU L	181	15.929	5.772	49.243	1.00	48.44	L	C
ÁTOMO	1416	N	THR L	182	11.716	3.675	51.044	1.00	49.61	L	N
ÁTOMO	1417	CA	THR L	182	10.571	3.276	51.857	1.00	45.22	L	C
ÁTOMO	1418	C	THR L	182	10.639	4.266	53.023	1.00	40.89	L	C
ÁTOMO	1419	O	THR L	182	11.717	4.776	53.336	1.00	41.00	L	O
ÁTOMO	1420	CB	THR L	182	10.733	1.838	52.423	1.00	47.80	L	C
ÁTOMO	1421	OG1	THR L	182	11.879	1.786	53.287	1.00	53.75	L	O
ÁTOMO	1422	CG2	THR L	182	10.914	0.832	51.308	1.00	50.23	L	C
ÁTOMO	1423	N	LYS L	183	9.507	4.540	53.662	1.00	45.54	L	N
ÁTOMO	1424	CA	LYS L	183	9.465	5.472	54.793	1.00	48.11	L	C
ÁTOMO	1425	C	LYS L	183	10.481	5.104	55.898	1.00	51.20	L	C
ÁTOMO	1426	O	LYS L	183	10.869	5.951	56.711	1.00	49.30	L	O
ÁTOMO	1427	CB	LYS L	183	8.049	5.521	55.387	1.00	43.28	L	C
ÁTOMO	1428	CG	LYS L	183	7.840	6.643	56.385	1.00	40.50	L	C
ÁTOMO	1429	CD	LYS L	183	6.617	6.417	57.255	1.00	66.92	L	C
ÁTOMO	1430	CE	LYS L	183	6.771	5.152	58.089	1.00	77.94	L	C
ÁTOMO	1431	NZ	LYS L	183	5.654	4.941	59.056	1.00	73.24	L	N
ÁTOMO	1432	N	ASP L	184	10.913	3.843	55.917	1.00	52.45	L	N
ÁTOMO	1433	CA	ASP L	184	11.811	3.416	56.984	1.00	53.02	L	C
ÁTOMO	1434	C	ASP L	184	13.237	3.930	56.763	1.00	48.73	L	C
ÁTOMO	1435	O	ASP L	184	13.807	4.649	57.573	1.00	51.85	L	O
ÁTOMO	1436	CB	ASP L	184	11.809	1.885	57.027	1.00	57.50	L	C
ÁTOMO	1437	CG	ASP L	184	10.705	1.407	57.960	1.00	71.44	L	C
ÁTOMO	1438	OD1	ASP L	184	10.099	2.257	58.612	1.00	66.16	L	O
ÁTOMO	1439	OD2	ASP L	184	10.460	0.205	58.021	1.00	81.91	L	O
ÁTOMO	1440	N	GLU L	185	13.832	3.497	55.635	1.00	43.10	L	N
ÁTOMO	1441	CA	GLU L	185	15.185	3.944	55.323	1.00	42.13	L	C
ÁTOMO	1442	C	GLU L	185	15.286	5.470	55.334	1.00	45.22	L	C
ÁTOMO	1443	O	GLU L	185	16.246	6.060	55.813	1.00	50.22	L	O
ÁTOMO	1444	CB	GLU L	185	15.566	3.406	53.943	1.00	43.08	L	C
ÁTOMO	1445	CG	GLU L	185	16.945	3.889	53.492	1.00	22.88	L	C
ÁTOMO	1446	CD	GLU L	185	18.015	3.077	54.186	1.00	39.62	L	C
ÁTOMO	1447	OE1	GLU L	185	17.699	2.384	55.144	1.00	47.97	L	O
ÁTOMO	1448	OE2	GLU L	185	19.166	3.140	53.756	1.00	53.07	L	O
ÁTOMO	1449	N	TYR L	186	14.262	6.113	54.741	1.00	42.12	L	N
ÁTOMO	1450	CA	TYR L	186	14.233	7.570	54.754	1.00	40.44	L	C
ÁTOMO	1451	C	TYR L	186	14.366	8.112	56.179	1.00	40.33	L	C
ÁTOMO	1452	O	TYR L	186	15.068	9.081	56.442	1.00	46.64	L	O
ÁTOMO	1453	CB	TYR L	186	12.909	8.028	54.140	1.00	41.32	L	C
ÁTOMO	1454	CG	TYR L	186	12.823	9.514	54.177	1.00	38.85	L	C
ÁTOMO	1455	CD1	TYR L	186	13.822	10.281	53.582	1.00	29.72	L	C
ÁTOMO	1456	CD2	TYR L	186	11.778	10.146	54.851	1.00	37.41	L	C
ÁTOMO	1457	CE1	TYR L	186	13.779	11.665	53.663	1.00	28.90	L	C
ÁTOMO	1458	CE2	TYR L	186	11.740	11.529	54.940	1.00	32.41	L	C
ÁTOMO	1459	CZ	TYR L	186	12.739	12.287	54.358	1.00	30.10	L	C
ÁTOMO	1460	OH	TYR L	186	12.710	13.665	54.446	1.00	42.62	L	O
ÁTOMO	1461	N	GLU L	187	13.695	7.510	57.147	1.00	44.49	L	N
ÁTOMO	1462	CA	GLU L	187	13.790	7.981	58.520	1.00	46.87	L	C
ÁTOMO	1463	C	GLU L	187	15.085	7.549	59.202	1.00	48.70	L	C

ATOMO	1464O	GLU	L	187	15.510	8.156	60.176	1.00	50.91	L	O
ATOMO	1465CB	GLU	L	187	12.573	7.503	59.306	1.00	42.22	L	C
ATOMO	1466CG	GLU	L	187	11.368	8.395	59.085	1.00	62.96	L	C
ATOMO	1467CD	GLU	L	187	10.044	7.666	59.223	1.00	86.23	L	C
ATOMO	1468OE1	GLU	L	187	9.906	6.832	60.150	1.00	80.19	L	O
ATOMO	1469OE2	GLU	L	187	9.135	7.943	58.405	1.00	94.40	L	O
ATOMO	1470N	ARG	L	188	15.725	6.512	58.675	1.00	46.28	L	N
ATOMO	1471CA	ARG	L	188	16.965	6.029	59.252	1.00	44.52	L	C
ATOMO	1472C	ARG	L	188	18.131	6.934	58.890	1.00	46.66	L	C
ATOMO	1473O	ARG	L	188	19.235	6.767	59.406	1.00	52.73	L	O
ATOMO	1474CB	ARG	L	188	17.269	4.623	58.754	1.00	48.29	L	C
ATOMO	1475CG	ARG	L	188	16.216	3.585	59.050	1.00	58.26	L	C
ATOMO	1476CD	ARG	L	188	16.723	2.255	58.545	1.00	65.07	L	C
ATOMO	1477NE	ARG	L	188	18.049	2.009	59.098	1.00	63.58	L	N
ATOMO	1478CZ	ARG	L	188	18.257	1.507	60.307	1.00	66.13	L	C
ATOMO	1479NH1	ARG	L	188	17.220	1.187	61.069	1.00	54.33	L	N
ATOMO	1480NH2	ARG	L	188	19.496	1.357	60.761	1.00	56.10	L	N
ATOMO	1481N	HIS	L	189	17.890	7.882	57.993	1.00	44.20	L	N
ATOMO	1482CA	HIS	L	189	18.897	8.764	57.427	1.00	42.62	L	C
ATOMO	1483C	HIS	L	189	18.505	10.231	57.645	1.00	45.89	L	C
ATOMO	1484O	HIS	L	189	17.414	10.556	58.093	1.00	46.26	L	O
ATOMO	1485CB	HIS	L	189	19.037	8.429	55.935	1.00	45.73	L	C
ATOMO	1486CG	HIS	L	189	19.693	7.071	55.785	1.00	40.19	L	C
ATOMO	1487ND1	HIS	L	189	20.953	6.813	56.208	1.00	51.00	L	N
ATOMO	1488CD2	HIS	L	189	19.093	5.857	55.443	1.00	59.83	L	C
ATOMO	1489CE1	HIS	L	189	21.100	5.477	56.140	1.00	47.50	L	C
ATOMO	1490NE2	HIS	L	189	20.000	4.877	55.685	1.00	61.66	L	N
ATOMO	1491N	ASN	L	190	19.455	11.138	57.354	1.00	50.73	L	N
ATOMO	1492CA	ASN	L	190	19.221	12.519	57.748	1.00	55.47	L	C
ATOMO	1493C	ASN	L	190	19.747	13.531	56.728	1.00	53.43	L	C
ATOMO	1494O	ASN	L	190	19.229	14.627	56.573	1.00	62.98	L	O
ATOMO	1495CB	ASN	L	190	19.865	12.710	59.122	1.00	57.60	L	C
ATOMO	1496CG	ASN	L	190	20.194	14.160	59.395	1.00	71.59	L	C
ATOMO	1497OD1	ASN	L	190	19.343	14.991	59.710	1.00	84.26	L	O
ATOMO	1498ND2	ASN	L	190	21.512	14.435	59.365	1.00	74.56	L	N
ATOMO	1499N	SER	L	191	20.835	13.144	56.039	1.00	48.57	L	N
ATOMO	1500CA	SER	L	191	21.348	13.985	54.965	1.00	48.43	L	C
ATOMO	1501C	SER	L	191	21.082	13.358	53.597	1.00	48.76	L	C
ATOMO	1502O	SER	L	191	21.648	12.330	53.245	1.00	49.95	L	O
ATOMO	1503CB	SER	L	191	22.855	14.138	55.160	1.00	48.79	L	C
ATOMO	1504OG	SER	L	191	23.356	15.077	54.204	1.00	58.59	L	O
ATOMO	1505N	TYR	L	192	20.292	14.056	52.790	1.00	48.13	L	N
ATOMO	1506CA	TYR	L	192	20.040	13.643	51.414	1.00	45.11	L	C
ATOMO	1507C	TYR	L	192	20.650	14.655	50.465	1.00	42.96	L	C
ATOMO	1508O	TYR	L	192	20.321	15.835	50.508	1.00	38.34	L	O
ATOMO	1509CB	TYR	L	192	18.537	13.507	51.187	1.00	45.18	L	C
ATOMO	1510CG	TYR	L	192	17.948	12.438	52.077	1.00	42.77	L	C
ATOMO	1511CD1	TYR	L	192	17.896	12.600	53.459	1.00	22.56	L	C
ATOMO	1512CD2	TYR	L	192	17.518	11.239	51.546	1.00	38.31	L	C
ATOMO	1513CE1	TYR	L	192	17.442	11.597	54.275	1.00	25.40	L	C
ATOMO	1514CE2	TYR	L	192	17.061	10.231	52.357	1.00	44.54	L	C
ATOMO	1515CZ	TYR	L	192	17.026	10.412	53.718	1.00	37.89	L	C
ATOMO	1516OH	TYR	L	192	16.567	9.387	54.500	1.00	32.01	L	O
ATOMO	1517N	THR	L	193	21.551	14.175	49.614	1.00	45.21	L	N
ATOMO	1518CA	THR	L	193	22.250	15.023	48.673	1.00	45.18	L	C
ATOMO	1519C	THR	L	193	22.083	14.665	47.212	1.00	44.18	L	C

ATOMO	1520	O	THR	L	193	22.091	13.501	46.824	1.00	45.22	L	O
ATOMO	1521	CB	THR	L	193	23.756	15.056	48.993	1.00	47.97	L	C
ATOMO	1522	OG1	THR	L	193	24.036	16.172	49.837	1.00	49.86	L	O
ATOMO	1523	CG2	THR	L	193	24.587	15.168	47.717	1.00	56.55	L	C
ATOMO	1524	N	CYS	L	194	21.958	15.708	46.407	1.00	45.78	L	N
ATOMO	1525	CA	CYS	L	194	21.804	15.595	44.971	1.00	45.45	L	C
ATOMO	1526	C	CYS	L	194	22.924	16.422	44.319	1.00	41.02	L	C
ATOMO	1527	O	CYS	L	194	23.002	17.627	44.525	1.00	44.64	L	O
ATOMO	1528	CB	CYS	L	194	20.411	16.118	44.584	1.00	45.40	L	C
ATOMO	1529	SG	CYS	L	194	20.133	16.300	42.804	1.00	69.21	L	S
ATOMO	1530	N	GLU	L	195	23.798	15.772	43.551	1.00	39.80	L	N
ATOMO	1531	CA	GLU	L	195	24.909	16.467	42.893	1.00	42.67	L	C
ATOMO	1532	C	GLU	L	195	24.837	16.414	41.366	1.00	41.70	L	C
ATOMO	1533	O	GLU	L	195	24.670	15.347	40.782	1.00	36.42	L	O
ATOMO	1534	CB	GLU	L	195	26.246	15.869	43.326	1.00	46.01	L	C
ATOMO	1535	CG	GLU	L	195	26.367	15.583	44.810	1.00	64.77	L	C
ATOMO	1536	CD	GLU	L	195	27.797	15.282	45.221	1.00	73.00	L	C
ATOMO	1537	OE1	GLU	L	195	28.569	14.796	44.364	1.00	56.32	L	O
ATOMO	1538	OE2	GLU	L	195	28.145	15.522	46.401	1.00	72.72	L	O
ATOMO	1539	N	ALA	L	196	24.990	17.568	40.723	1.00	40.13	L	N
ATOMO	1540	CA	ALA	L	196	24.938	17.639	39.267	1.00	42.38	L	C
ATOMO	1541	C	ALA	L	196	26.315	17.873	38.670	1.00	47.42	L	C
ATOMO	1542	O	ALA	L	196	27.060	18.740	39.123	1.00	45.43	L	O
ATOMO	1543	CB	ALA	L	196	23.990	18.747	38.827	1.00	40.85	L	C
ATOMO	1544	N	THR	L	197	26.644	17.096	37.642	1.00	54.27	L	N
ATOMO	1545	CA	THR	L	197	27.938	17.210	36.976	1.00	56.97	L	C
ATOMO	1546	C	THR	L	197	27.707	17.576	35.519	1.00	52.12	L	C
ATOMO	1547	O	THR	L	197	27.154	16.795	34.756	1.00	54.86	L	O
ATOMO	1548	CB	THR	L	197	28.723	15.879	37.032	1.00	60.44	L	C
ATOMO	1549	OG1	THR	L	197	28.656	15.329	38.357	1.00	55.79	L	O
ATOMO	1550	CG2	THR	L	197	30.177	16.113	36.668	1.00	66.98	L	C
ATOMO	1551	N	HIS	L	198	28.135	18.770	35.141	1.00	52.54	L	N
ATOMO	1552	CA	HIS	L	198	27.958	19.255	33.783	1.00	49.05	L	C
ATOMO	1553	C	HIS	L	198	29.244	19.944	33.327	1.00	50.31	L	C
ATOMO	1554	O	HIS	L	198	29.992	20.490	34.143	1.00	51.38	L	O
ATOMO	1555	CB	HIS	L	198	26.769	20.226	33.750	1.00	48.32	L	C
ATOMO	1556	CG	HIS	L	198	26.396	20.692	32.376	1.00	55.90	L	C
ATOMO	1557	ND1	HIS	L	198	26.284	19.834	31.302	1.00	61.36	L	N
ATOMO	1558	CD2	HIS	L	198	26.068	21.921	31.912	1.00	45.28	L	C
ATOMO	1559	CE1	HIS	L	198	25.904	20.515	30.236	1.00	64.72	L	C
ATOMO	1560	NE2	HIS	L	198	25.764	21.783	30.579	1.00	54.41	L	N
ATOMO	1561	N	LYS	L	199	29.501	19.917	32.025	1.00	54.03	L	N
ATOMO	1562	CA	LYS	L	199	30.708	20.526	31.484	1.00	53.00	L	C
ATOMO	1563	C	LYS	L	199	30.883	21.998	31.851	1.00	55.09	L	C
ATOMO	1564	O	LYS	L	199	31.990	22.529	31.768	1.00	59.80	L	O
ATOMO	1565	CB	LYS	L	199	30.735	20.383	29.965	1.00	51.53	L	C
ATOMO	1566	CG	LYS	L	199	29.631	21.136	29.262	1.00	54.50	L	C
ATOMO	1567	CD	LYS	L	199	29.886	21.211	27.768	1.00	69.27	L	C
ATOMO	1568	CE	LYS	L	199	31.152	21.991	27.463	1.00	89.21	L	C
ATOMO	1569	NZ	LYS	L	199	31.310	22.208	25.993	1.00	98.42	L	N
ATOMO	1570	N	THR	L	200	29.807	22.662	32.256	1.00	52.50	L	N
ATOMO	1571	CA	THR	L	200	29.900	24.074	32.613	1.00	55.94	L	C
ATOMO	1572	C	THR	L	200	30.727	24.351	33.871	1.00	59.72	L	C
ATOMO	1573	O	THR	L	200	30.788	25.486	34.347	1.00	66.15	L	O
ATOMO	1574	CB	THR	L	200	28.513	24.686	32.803	1.00	48.37	L	C
ATOMO	1575	OG1	THR	L	200	27.731	23.834	33.643	1.00	59.04	L	O
ATOMO	1576	CG2	THR	L	200	27.830	24.864	31.473	1.00	53.65	L	C
ATOMO	1577	N	SER	L	201	31.359	23.313	34.407	1.00	62.13	L	N
ATOMO	1578	CA	SER	L	201	32.188	23.453	35.599	1.00	63.39	L	C
ATOMO	1579	C	SER	L	201	32.916	22.159	35.938	1.00	61.33	L	C
ATOMO	1580	O	SER	L	201	32.604	21.089	35.409	1.00	60.64	L	O

ÁTOMO	1581	CB	SER L	201	31.341	23.885	36.792	1.00	61.74	L	C
ÁTOMO	1582	OG	SER L	201	30.356	22.917	37.086	1.00	76.78	L	O
ÁTOMO	1583	N	THR L	202	33.892	22.273	36.828	1.00	63.77	L	N
ÁTOMO	1584	CA	THR L	202	34.687	21.131	37.267	1.00	68.80	L	C
ÁTOMO	1585	C	THR L	202	34.141	20.557	38.568	1.00	69.42	L	C
ÁTOMO	1586	O	THR L	202	34.216	19.353	38.808	1.00	69.26	L	O
ÁTOMO	1587	CB	THR L	202	36.158	21.536	37.473	1.00	72.06	L	C
ÁTOMO	1588	OG1	THR L	202	36.217	22.783	38.188	1.00	66.18	L	O
ÁTOMO	1589	CG2	THR L	202	36.861	21.665	36.123	1.00	68.77	L	C
ÁTOMO	1590	N	SER L	203	33.599	21.427	39.409	1.00	71.13	L	N
ÁTOMO	1591	CA	SER L	203	33.020	20.997	40.673	1.00	74.47	L	C
ÁTOMO	1592	C	SER L	203	31.526	20.732	40.462	1.00	71.15	L	C
ÁTOMO	1593	O	SER L	203	30.829	21.524	39.832	1.00	69.36	L	O
ÁTOMO	1594	CB	SER L	203	33.229	22.078	41.743	1.00	76.75	L	C
ÁTOMO	1595	OG	SER L	203	32.825	23.358	41.274	1.00	81.99	L	O
ÁTOMO	1596	N	PRO L	204	31.018	19.605	40.979	1.00	67.69	L	N
ÁTOMO	1597	CA	PRO L	204	29.595	19.297	40.808	1.00	62.61	L	C
ÁTOMO	1598	C	PRO L	204	28.712	20.237	41.606	1.00	56.97	L	C
ÁTOMO	1599	O	PRO L	204	29.052	20.610	42.722	1.00	62.74	L	O
ÁTOMO	1600	CB	PRO L	204	29.493	17.853	41.296	1.00	56.97	L	C
ÁTOMO	1601	CG	PRO L	204	30.502	17.821	42.393	1.00	66.29	L	C
ÁTOMO	1602	CD	PRO L	204	31.687	18.554	41.765	1.00	70.41	L	C
ÁTOMO	1603	N	ILE L	205	27.588	20.627	41.016	1.00	51.68	L	N
ÁTOMO	1604	CA	ILE L	205	26.640	21.509	41.678	1.00	46.32	L	C
ÁTOMO	1605	C	ILE L	205	25.886	20.662	42.696	1.00	45.80	L	C
ÁTOMO	1606	O	ILE L	205	25.086	19.801	42.333	1.00	40.05	L	O
ÁTOMO	1607	CB	ILE L	205	25.656	22.094	40.672	1.00	45.71	L	C
ÁTOMO	1608	CG1	ILE L	205	26.431	22.817	39.578	1.00	42.60	L	C
ÁTOMO	1609	CG2	ILE L	205	24.694	23.039	41.371	1.00	48.15	L	C
ÁTOMO	1610	CD1	ILE L	205	25.549	23.579	38.620	1.00	57.30	L	C
ÁTOMO	1611	N	VAL L	206	26.147	20.909	43.972	1.00	42.27	L	N
ÁTOMO	1612	CA	VAL L	206	25.525	20.118	45.017	1.00	45.01	L	C
ÁTOMO	1613	C	VAL L	206	24.378	20.803	45.743	1.00	43.48	L	C
ÁTOMO	1614	O	VAL L	206	24.465	21.965	46.114	1.00	54.37	L	O
ÁTOMO	1615	CB	VAL L	206	26.584	19.666	46.058	1.00	42.29	L	C
ÁTOMO	1616	CG1	VAL L	206	25.967	18.715	47.046	1.00	48.63	L	C
ÁTOMO	1617	CG2	VAL L	206	27.750	18.992	45.358	1.00	38.47	L	C
ÁTOMO	1618	N	LYS L	207	23.296	20.064	45.931	1.00	41.43	L	N
ÁTOMO	1619	CA	LYS L	207	22.130	20.569	46.631	1.00	45.71	L	C
ÁTOMO	1620	C	LYS L	207	21.689	19.478	47.584	1.00	45.03	L	C
ÁTOMO	1621	O	LYS L	207	21.695	18.302	47.238	1.00	46.04	L	O
ÁTOMO	1622	CB	LYS L	207	21.003	20.886	45.654	1.00	49.37	L	C
ÁTOMO	1623	CG	LYS L	207	21.283	22.063	44.750	1.00	55.07	L	C
ÁTOMO	1624	CD	LYS L	207	21.395	23.357	45.532	1.00	64.96	L	C
ÁTOMO	1625	CE	LYS L	207	21.738	24.505	44.598	1.00	71.81	L	C
ÁTOMO	1626	NZ	LYS L	207	21.872	25.798	45.310	1.00	78.53	L	N
ÁTOMO	1627	N	SER L	208	21.296	19.859	48.787	1.00	44.02	L	N
ÁTOMO	1628	CA	SER L	208	20.889	18.856	49.747	1.00	49.80	L	C
ÁTOMO	1629	C	SER L	208	20.149	19.432	50.931	1.00	50.94	L	C
ÁTOMO	1630	O	SER L	208	20.203	20.627	51.198	1.00	53.70	L	O
ÁTOMO	1631	CB	SER L	208	22.117	18.103	50.243	1.00	53.51	L	C
ÁTOMO	1632	OG	SER L	208	23.078	19.005	50.763	1.00	59.07	L	O
ÁTOMO	1633	N	PHE L	209	19.466	18.550	51.646	1.00	51.91	L	N
ÁTOMO	1634	CA	PHE L	209	18.711	18.933	52.822	1.00	51.34	L	C
ÁTOMO	1635	C	PHE L	209	18.914	17.894	53.923	1.00	49.64	L	C

ÁTOMO	1636	O	PHE	L	209	19.453	16.815	53.688	1.00	54.59	L	O
ÁTOMO	1637	CB	PHE	L	209	17.227	19.038	52.464	1.00	49.20	L	C
ÁTOMO	1638	CG	PHE	L	209	16.602	17.728	52.091	1.00	46.90	L	C
ÁTOMO	1639	CD1	PHE	L	209	16.194	16.836	53.064	1.00	37.57	L	C
ÁTOMO	1640	CD2	PHE	L	209	16.434	17.380	50.761	1.00	53.34	L	C
ÁTOMO	1641	CE1	PHE	L	209	15.630	15.625	52.714	1.00	47.31	L	C
ÁTOMO	1642	CE2	PHE	L	209	15.870	16.172	50.411	1.00	36.37	L	C
ÁTOMO	1643	CZ	PHE	L	209	15.469	15.296	51.386	1.00	34.65	L	C
ÁTOMO	1644	N	ASN	L	210	18.487	18.228	55.131	1.00	49.60	L	N
ÁTOMO	1645	CA	ASN	L	210	18.588	17.302	56.242	1.00	46.61	L	C
ÁTOMO	1646	C	ASN	L	210	17.193	17.008	56.761	1.00	48.63	L	C
ÁTOMO	1647	O	ASN	L	210	16.450	17.912	57.130	1.00	43.72	L	O
ÁTOMO	1648	CB	ASN	L	210	19.462	17.888	57.343	1.00	42.76	L	C
ÁTOMO	1649	CG	ASN	L	210	20.935	17.681	57.073	1.00	60.02	L	C
ÁTOMO	1650	OD1	ASN	L	210	21.635	17.059	57.864	1.00	69.23	L	O
ÁTOMO	1651	ND2	ASN	L	210	21.410	18.185	55.935	1.00	75.72	L	N
ÁTOMO	1652	N	ARG	L	211	16.835	15.732	56.762	1.00	50.53	L	N
ÁTOMO	1653	CA	ARG	L	211	15.531	15.302	57.231	1.00	54.11	L	C
ÁTOMO	1654	C	ARG	L	211	15.280	15.835	58.631	1.00	62.11	L	C
ÁTOMO	1655	O	ARG	L	211	14.147	16.169	58.983	1.00	63.88	L	O
ÁTOMO	1656	CB	ARG	L	211	15.468	13.781	57.247	1.00	53.56	L	C
ÁTOMO	1657	CG	ARG	L	211	14.114	13.211	57.586	1.00	44.47	L	C
ÁTOMO	1658	CD	ARG	L	211	14.210	11.713	57.614	1.00	54.91	L	C
ÁTOMO	1659	NE	ARG	L	211	15.231	11.291	58.565	1.00	58.23	L	N
ÁTOMO	1660	CZ	ARG	L	211	15.003	11.066	59.855	1.00	72.82	L	C
ÁTOMO	1661	NH1	ARG	L	211	13.779	11.217	60.349	1.00	73.06	L	N
ÁTOMO	1662	NH2	ARG	L	211	16.001	10.703	60.653	1.00	62.59	L	N
ÁTOMO	1663	OXT	ARG	L	211	16.349	15.915	59.421	1.00	69.05	L	O
TER	1664				211							
ÁTOMO	1665	N	GLU	H	1	-11.229	28.751	10.621	1.00	71.36	H	N
ÁTOMO	1666	CA	GLU	H	1	-10.037	28.156	11.214	1.00	65.32	H	C
ÁTOMO	1667	C	GLU	H	1	-10.186	26.642	11.378	1.00	58.26	H	C
ÁTOMO	1668	O	GLU	H	1	-10.717	26.147	12.364	1.00	57.65	H	O
ÁTOMO	1669	CB	GLU	H	1	-9.807	28.808	12.578	1.00	63.19	H	C
ÁTOMO	1670	CG	GLU	H	1	-9.166	27.849	13.582	1.00	71.03	H	C
ÁTOMO	1671	CD	GLU	H	1	-9.800	28.047	14.940	1.00	87.73	H	C
ÁTOMO	1672	OE1	GLU	H	1	-9.507	29.044	15.584	1.00	95.88	H	O
ÁTOMO	1673	OE2	GLU	H	1	-10.586	27.192	15.346	1.00	96.84	H	O
ÁTOMO	1674	N	VAL	H	2	-9.728	25.874	10.404	1.00	56.34	H	N
ÁTOMO	1675	CA	VAL	H	2	-9.825	24.427	10.381	1.00	45.11	H	C
ÁTOMO	1676	C	VAL	H	2	-9.533	23.838	11.759	1.00	40.35	H	C
ÁTOMO	1677	O	VAL	H	2	-8.616	24.234	12.456	1.00	44.32	H	O
ÁTOMO	1678	CB	VAL	H	2	-8.839	23.903	9.338	1.00	46.79	H	C
ÁTOMO	1679	CG1	VAL	H	2	-8.720	22.384	9.446	1.00	37.72	H	C
ÁTOMO	1680	CG2	VAL	H	2	-9.339	24.265	7.948	1,00	32.94	H	C
ÁTOMO	1681	N	LYS	H	3	-10.391	22.889	12.155	1.00	39.63	H	N
ÁTOMO	1682	CA	LYS	H	3	-10.299	22.350	13.496	1.00	40.75	H	C
ÁTOMO	1683	C	LYS	H	3	-10.578	20.850	13.492	1.00	38.29	H	C
ÁTOMO	1684	O	LYS	H	3	-11.632	20.381	13.091	1.00	46.18	H	O
ÁTOMO	1685	CB	LYS	H	3	-11.363	23.068	14.323	1.00	42.35	H	C
ÁTOMO	1686	CG	LYS	H	3	-11.099	23.026	15.829	1.00	53.48	H	C
ÁTOMO	1687	CD	LYS	H	3	-12.072	23.935	16.584	1.00	97.53	H	C
ÁTOMO	1688	CE	LYS	H	3	-12.025	23.731	18.102	1.00	126.21	H	C
ÁTOMO	1689	NZ	LYS	H	3	-12.982	24.629	18.743	1.00	139.14	H	N
ÁTOMO	1690	N	LEU	H	4	-9.564	20.084	13.906	1.00	36.69	H	N
ÁTOMO	1691	CA	LEU	H	4	-9.766	18.650	13.973	1.00	31.82	H	C
ÁTOMO	1692	C	LEU	H	4	-9.672	18.147	15.411	1.00	36.95	H	C
ÁTOMO	1693	O	LEU	H	4	-8.625	18.185	16.044	1.00	35.06	H	O
ÁTOMO	1694	CB	LEU	H	4	-8.723	17.970	13.083	1.00	27.41	H	C
ÁTOMO	1695	CG	LEU	H	4	-8.916	18.323	11.603	1.00	23.69	H	C
ÁTOMO	1696	CD1	LEU	H	4	-7.819	17.725	10.718	1.00	29.88	H	C

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ÁTOMO	1697	CD2	LEU	H	4	-10.246	17.817	11.041	1.00	23.22	H	C
ÁTOMO	1698	N	VAL	H	5	-10.765	17.696	16.007	1.00	43.69	H	N
ÁTOMO	1699	CA	VAL	H	5	-10.733	17.251	17.385	1.00	41.35	H	C
ÁTOMO	1700	C	VAL	H	5	-11.037	15.772	17.453	1.00	38.94	H	C
ÁTOMO	1701	O	VAL	H	5	-12.140	15.350	17.142	1.00	42.95	H	O
ÁTOMO	1702	CB	VAL	H	5	-11.757	18.027	18.225	1.00	37.98	H	C
ÁTOMO	1703	CG1	VAL	H	5	-11.835	17.437	19.607	1.00	40.24	H	C
ÁTOMO	1704	CG2	VAL	H	5	-11.357	19.487	18.296	1.00	32.84	H	C
ÁTOMO	1705	N	GLU	H	6	-10.044	14.987	17.842	1.00	38.45	H	N
ÁTOMO	1706	CA	GLU	H	6	-10.251	13.552	18.025	1.00	43.30	H	C
ÁTOMO	1707	C	GLU	H	6	-10.849	13.238	19.398	1.00	47.18	H	C
ÁTOMO	1708	O	GLU	H	6	-11.081	14.111	20.225	1.00	53.60	H	O
ÁTOMO	1709	CB	GLU	H	6	-8.899	12.855	17.872	1.00	38.50	H	C
ÁTOMO	1710	CG	GLU	H	6	-8.397	12.874	16.428	1.00	34.54	H	C
ÁTOMO	1711	CD	GLU	H	6	-7.318	13.922	16.284	1.00	28.64	H	C
ÁTOMO	1712	OE1	GLU	H	6	-6.427	13.847	15.454	1.00	39.15	H	O
ÁTOMO	1713	OE2	GLU	H	6	-7.420	14.934	17.168	1.00	29.23	H	O
ÁTOMO	1714	N	SER	H	7	-11.141	11.940	19.613	1.00	51.21	H	N
ÁTOMO	1715	CA	SER	H	7	-11.734	11.542	20.886	1.00	53.01	H	C
ÁTOMO	1716	C	SER	H	7	-12.123	10.061	20.902	1.00	53.06	H	C
ÁTOMO	1717	O	SER	H	7	-12.030	9.347	19.912	1.00	44.63	H	O
ÁTOMO	1718	CB	SER	H	7	-12.975	12.403	21.122	1.00	54.35	H	C
ÁTOMO	1719	OG	SER	H	7	-13.927	12.149	20.088	1.00	45.65	H	O
ÁTOMO	1720	N	GLY	H	8	-12.533	9.597	22.098	1.00	55.02	H	N
ÁTOMO	1721	CA	GLY	H	8	-12.996	8.217	22.227	1.00	56.76	H	C
ÁTOMO	1722	C	GLY	H	8	-11.834	7.227	22.355	1.00	53.98	H	C
ÁTOMO	1723	O	GLY	H	8	-11.927	6.062	21.992	1.00	55.04	H	O
ÁTOMO	1724	N	GLY	H	9	-10.697	7.741	22.861	1.00	48.90	H	N
ÁTOMO	1725	CA	GLY	H	9	-9.519	6.888	22.992	1.00	49.84	H	C
ÁTOMO	1726	C	GLY	H	9	-9.206	6.567	24.456	1.00	53.72	H	C
ÁTOMO	1727	O	GLY	H	9	-9.129	7.434	25.316	1.00	60.05	H	O
ÁTOMO	1728	N	GLY	H	10	-9.060	5.256	24.731	1.00	47.72	H	N
ÁTOMO	1729	CA	GLY	H	10	-8.739	4.834	26.090	1.00	52.62	H	C
ÁTOMO	1730	C	GLY	H	10	-7.985	3.502	26.101	1.00	53.34	H	C
ÁTOMO	1731	O	GLY	H	10	-7.434	3.054	25.105	1.00	53.79	H	O
ÁTOMO	1732	N	LEU	H	11	-7.938	2.883	27.295	1.00	51.02	H	N
ÁTOMO	1733	CA	LEU	H	11	-7.249	1.610	27.428	1.00	42.34	H	C
ÁTOMO	1734	C	LEU	H	11	-8.119	0.453	26.940	1.00	43.65	H	C
ÁTOMO	1735	O	LEU	H	11	-9.337	0.448	27.066	1.00	44.21	H	O
ÁTOMO	1736	CB	LEU	H	11	-6.895	1.413	28.903	1.00	50.20	H	C
ÁTOMO	1737	CG	LEU	H	11	-6.087	0.137	29.144	1.00	36.24	H	C
ÁTOMO	1738	CD1	LEU	H	11	-4.725	0.166	28.443	1.00	43.75	H	C
ÁTOMO	1739	CD2	LEU	H	11	-5.801	-0.113	30.625	1.00	59.31	H	C
ÁTOMO	1740	N	VAL	H	12	-7.453	-0.533	26.324	1.00	42.94	H	N
ÁTOMO	1741	CA	VAL	H	12	-8.179	-1.712	25.883	1.00	43.16	H	C
ÁTOMO	1742	C	VAL	H	12	-7.340	-2.973	26.063	1.00	47.66	H	C
ÁTOMO	1743	O	VAL	H	12	-6.127	-2.931	26.226	1.00	57.83	H	O
ÁTOMO	1744	CB	VAL	H	12	-8.535	-1.535	24.407	1.00	40.29	H	C
ÁTOMO	1745	CG1	VAL	H	12	-9.134	-2.832	23.862	1.00	46.80	H	C
ÁTOMO	1746	CG2	VAL	H	12	-9.542	-0.414	24.245	1.00	49.39	H	C
ÁTOMO	1747	N	LYS	H	13	-8.035	-4.121	26.078	1.00	45.71	H	N
ÁTOMO	1748	CA	LYS	H	13	-7.316	-5.381	26.174	1.00	43.89	H	C
ÁTOMO	1749	C	LYS	H	13	-7.121	-6.008	24.793	1.00	40.39	H	C
ÁTOMO	1750	O	LYS	H	13	-7.975	-5.934	23.920	1.00	46.98	H	O
ÁTOMO	1751	CB	LYS	H	13	-8.117	-6.324	27.071	1.00	45.28	H	C
ÁTOMO	1752	CG	LYS	H	13	-7.818	-6.100	28.554	1.00	67.37	H	C
ÁTOMO	1753	CD	LYS	H	13	-8.511	-4.851	29.102	1.00	88.33	H	C
ÁTOMO	1754	CE	LYS	H	13	-7.655	-4.105	30.133	1.00	80.99	H	C
ÁTOMO	1755	NZ	LYS	H	13	-6.458	-3.569	29.486	1.00	58.40	H	N
ÁTOMO	1756	N	PRO	H	14	-5.976	-6.651	24.544	1.00	38.88	H	N

ÁTOMO	1757	CA	PRO	H	14	-5.784	-7.265	23.231	1.00	38.32	H	C
ÁTOMO	1758	C	PRO	H	14	-6.971	-8.123	22.837	1.00	44.46	H	C
ÁTOMO	1759	O	PRO	H	14	-7.434	-8.952	23.617	1.00	52.99	H	O
ÁTOMO	1760	CB	PRO	H	14	-4.496	-8.076	23.401	1.00	37.38	H	C
ÁTOMO	1761	CG	PRO	H	14	-4.370	-8.249	24.877	1.00	40.42	H	C
ÁTOMO	1762	CD	PRO	H	14	-4.849	-6.948	25.435	1.00	35.01	H	C
ÁTOMO	1763	N	GLY	H	15	-7.466	-7.903	21.624	1.00	45.67	H	N
ÁTOMO	1764	CA	GLY	H	15	-8.601	-8.653	21.119	1.00	39.69	H	C
ÁTOMO	1765	C	GLY	H	15	-9.828	-7.770	21.103	1.00	42.73	H	C
ÁTOMO	1766	O	GLY	H	15	-10.789	-8.044	20.389	1.00	43.42	H	O
ÁTOMO	1767	N	GLY	H	16	-9.782	-6.688	21.875	1.00	44.16	H	N
ÁTOMO	1768	CA	GLY	H	16	-10.913	-5.781	21.952	1.00	43.39	H	C
ÁTOMO	1769	C	GLY	H	16	-11.219	-4.862	20.775	1.00	45.04	H	C
ÁTOMO	1770	O	GLY	H	16	-10.566	-4.890	19.721	1.00	34.85	H	O
ÁTOMO	1771	N	SER	H	17	-12.238	-4.030	20.986	1.00	45.85	H	N
ÁTOMO	1772	CA	SER	H	17	-12.700	-3.076	19.994	1.00	44.23	H	C
ÁTOMO	1773	C	SER	H	17	-12.735	-1.670	20.566	1.00	42.88	H	C
ÁTOMO	1774	O	SER	H	17	-12.910	-1.477	21.762	1.00	43.45	H	O
ÁTOMO	1775	CB	SER	H	17	-14.090	-3.463	19.513	1.00	44.97	H	C
ÁTOMO	1776	OG	SER	H	17	-14.056	-4.768	18.969	1.00	64.66	H	O
ÁTOMO	1777	N	LEU	H	18	-12.582	-0.690	19.688	1.00	43.61	H	N
ÁTOMO	1778	CA	LEU	H	18	-12.573	0.704	20.084	1.00	42.03	H	C
ÁTOMO	1779	C	LEU	H	18	-13.007	1.516	18.861	1.00	39.52	H	C
ÁTOMO	1780	O	LEU	H	18	-12.778	1.094	17.721	1.00	39.63	H	O
ÁTOMO	1781	CB	LEU	H	18	-11.155	1.083	20.512	1.00	43.41	H	C
ÁTOMO	1782	CG	LEU	H	18	-10.925	2.488	21.051	1.00	42.39	H	C
ÁTOMO	1783	CD1	LEU	H	18	-11.722	2.666	22.321	1.00	43.36	H	C
ÁTOMO	1784	CD2	LEU	H	18	-9.449	2.701	21.308	1.00	59.30	H	C
ÁTOMO	1785	N	LYS	H	19	-13.640	2.665	19.090	1.00	36.47	H	N
ÁTOMO	1786	CA	LYS	H	19	-13.988	3.483	17.933	1.00	42.76	H	C
ÁTOMO	1787	C	LYS	H	19	-13.744	4.971	18.198	1.00	40.99	H	C
ÁTOMO	1788	O	LYS	H	19	-14.288	5.562	19.121	1.00	42.24	H	O
ÁTOMO	1789	CB	LYS	H	19	-15.465	3.247	17.608	1.00	43.96	H	C
ÁTOMO	1790	CG	LYS	H	19	-15.854	3.803	16.236	1.00	56.00	H	C
ÁTOMO	1791	CD	LYS	H	19	-17.256	4.416	16.235	1.00	45.68	H	C
ÁTOMO	1792	CE	LYS	H	19	-18.247	3.614	15.384	1.00	59.48	H	C
ÁTOMO	1793	NZ	LYS	H	19	-19.100	4.529	14.629	1.00	51.55	H	N
ÁTOMO	1794	N	LEU	H	20	-13.082	5.326	17.249	1.00	39.79	H	N
ÁTOMO	1795	CA	LEU	H	20	-12.538	6.662	17.450	1.00	36.68	H	C
ÁTOMO	1796	C	LEU	H	20	-13.376	7.653	16.679	1.00	34.74	H	C
ÁTOMO	1797	O	LEU	H	20	-14.020	7.303	15.694	1.00	33.37	H	0
ÁTOMO	1798	CB	LEU	H	20	-11.096	6.779	16.945	1.00	40.64	H	C
ÁTOMO	1799	CG	LEU	H	20	-9.905	6.022	17.535	1.00	41.11	H	C
ÁTOMO	1800	CD1	LEU	H	20	-8.614	6.271	16.759	1.00	61.71	H	C
ÁTOMO	1801	CD2	LEU	H	20	-9.778	6.454	18.977	1.00	35.59	H	C
ÁTOMO	1802	N	SER	H	21	-13.497	9.005	16.927	1.00	33.19	H	N
ÁTOMO	1803	CA	SER	H	21	-14.281	9.919	16.122	1.00	40.56	H	C
ÁTOMO	1804	C	SER	H	21	-13.489	11.202	15.983	1.00	42.41	H	C
ÁTOMO	1805	O	SER	H	21	-12.563	11.461	16.753	1.00	44.66	H	0
ÁTOMO	1806	CB	SER	H	21	-15.634	10.204	16.768	1.00	34.42	H	C
ÁTOMO	1807	OG	SER	H	21	-15.449	10.839	18.008	1.00	46.92	H	0
ÁTOMO	1808	N	CYS	H	22	-13.846	11.997	14.988	1.00	37.06	H	N
ÁTOMO	1809	CA	CYS	H	22	-13.155	13.242	14.739	1.00	38.14	H	C
ÁTOMO	1810	C	CYS	H	22	-14.158	14.285	14.346	1.00	31.54	H	C
ÁTOMO	1811	O	CYS	H	22	-14.810	14.172	13.318	1.00	30.64	H	0
ÁTOMO	1812	CB	CYS	H	22	-12.135	13.057	13.612	1.00	43.73	H	C
ÁTOMO	1813	SG	CYS	H	22	-11.198	14.513	13.004	1.00	55.55	H	S
ÁTOMO	1814	N	ALA	H	23	-14.284	15.298	15.190	1.00	32.03	H	N

ÁTOMO	1815	CA	ALA	H	23	-15.187	16.402	14.926	1.00	31.56	H	C
ÁTOMO	1816	C	ALA	H	23	-14.445	17.364	14.002	1.00	39.56	H	C
ÁTOMO	1817	O	ALA	H	23	-13.378	17.893	14.348	1.00	37.69	H	O
ÁTOMO	1818	CB	ALA	H	23	-15.552	17.089	16.220	1.00	38.17	H	C
ÁTOMO	1819	N	ALA	H	24	-14.992	17.572	12.814	1.00	36.81	H	N
ÁTOMO	1820	CA	ALA	H	24	-14.362	18.465	11.867	1.00	31.76	H	C
ÁTOMO	1821	C	ALA	H	24	-15.091	19.800	11.857	1.00	34.30	H	C
ÁTOMO	1822	O	ALA	H	24	-16.200	19.910	12.368	1.00	42.66	H	O
ÁTOMO	1823	CB	ALA	H	24	-14.379	17.836	10.481	1.00	29.25	H	C
ÁTOMO	1824	N	SER	H	25	-14.456	20.811	11.275	1.00	45.22	H	N
ÁTOMO	1825	CA	SER	H	25	-15.040	22.146	11.173	1.00	45.48	H	C
ÁTOMO	1826	C	SER	H	25	-14.022	23.142	10.638	1.00	45.04	H	C
ÁTOMO	1827	O	SER	H	25	-12.823	22.995	10.862	1.00	48.34	H	O
ÁTOMO	1828	CB	SER	H	25	-15.509	22.637	12.535	1.00	45.05	H	C
ÁTOMO	1829	OG	SER	H	25	-14.401	22.994	13.327	1.00	38.97	H	O
ÁTOMO	1830	N	GLY	H	26	-14.510	24.163	9.943	1.00	43.04	H	N
ÁTOMO	1831	CA	GLY	H	26	-13.627	25.181	9.417	1.00	36.80	H	C
ÁTOMO	1832	C	GLY	H	26	-13.361	24.980	7.951	1.00	38.49	H	C
ÁTOMO	1833	O	GLY	H	26	-12.549	25.684	7.362	1.00	52.85	H	O
ÁTOMO	1834	N	PHE	H	27	-14.035	24.007	7.356	1.00	37.93	H	N
ÁTOMO	1835	CA	PHE	H	27	-13.856	23.745	5.946	1.00	34.05	H	C
ÁTOMO	1836	C	PHE	H	27	-15.015	22.930	5.427	1.00	36.91	H	C
ÁTOMO	1837	O	PHE	H	27	-15.759	22.343	6.206	1.00	39.00	H	O
ÁTOMO	1838	CB	PHE	H	27	-12.522	23.017	5.670	1.00	33.34	H	C
ÁTOMO	1839	CG	PHE	H	27	-12.394	21.675	6.329	1.00	17.41	H	C
ÁTOMO	1840	CD1	PHE	H	27	-12.133	21.570	7.691	1.00	25.29	H	C
ÁTOMO	1841	CD2	PHE	H	27	-12.547	20.512	5.586	1.00	15.22	H	C
ÁTOMO	1842	CE1	PHE	H	27	-12.030	20.319	8.304	1.00	21.74	H	C
ÁTOMO	1843	CE2	PHE	H	27	-12.447	19.265	6.188	1.00	8.67	H	C
ÁTOMO	1844	CZ	PHE	H	27	-12.188	19.167	7.547	1.00	16.97	H	C
ÁTOMO	1845	N	THR	H	28	-15.168	22.907	4.108	1.00	38.20	H	N
ÁTOMO	1846	CA	THR	H	28	-16.238	22.176	3.457	1.00	35.35	H	C
ÁTOMO	1847	C	THR	H	28	-15.956	20.675	3.520	1.00	35.62	H	C
ÁTOMO	1848	O	THR	H	28	-15.657	20.042	2.510	1.00	41.35	H	O
ÁTOMO	1849	CB	THR	H	28	-16.349	22.645	2.007	1.00	37.46	H	C
ÁTOMO	1850	OG1	THR	H	28	-16.428	24.074	1.989	1.00	41.29	H	O
ÁTOMO	1851	CG2	THR	H	28	-17.575	22.066	1.340	1.00	44.03	H	C
ÁTOMO	1852	N	PHE	H	29	-16.063	20.130	4.728	1.00	34.25	H	N
ÁTOMO	1853	CA	PHE	H	29	-15.818	18.721	5.042	1.00	34.22	H	C
ÁTOMO	1854	C	PHE	H	29	-16.163	17.674	3.979	1.00	34.25	H	C
ÁTOMO	1855	O	PHE	H	29	-15.391	16.755	3.730	1.00	47.37	H	O
ÁTOMO	1856	CB	PHE	H	29	-16.530	18.390	6.356	1.00	33.13	H	C
ÁTOMO	1857	CG	PHE	H	29	-16.417	16.954	6.771	1.00	30.33	H	C
ÁTOMO	1858	CD1	PHE	H	29	-17.427	16.055	6.481	1.00	33.76	H	C
ÁTOMO	1859	CD2	PHE	H	29	-15.298	16.505	7.462	1.00	38.72	H	C
ÁTOMO	1860	CE1	PHE	H	29	-17.325	14.740	6.872	1.00	41.24	H	C
ÁTOMO	1861	CE2	PHE	H	29	-15.189	15.193	7.855	1.00	25.21	H	C
ÁTOMO	1862	CZ	PHE	H	29	-16.205	14.307	7.560	1.00	31.25	H	C
ÁTOMO	1863	N	ILE	H	30	-17.316	17.813	3.347	1.00	35.57	H	N
ÁTOMO	1864	CA	ILE	H	30	-17.752	16.875	2.324	1.00	36.50	H	C
ÁTOMO	1865	C	ILE	H	30	-16.860	16.824	1.080	1.00	38.95	H	C
ÁTOMO	1866	O	ILE	H	30	-16.809	15.809	0.376	1.00	40.39	H	0
ÁTOMO	1867	CB	ILE	H	30	-19.182	17.220	1.867	1.00	36.84	H	C
ÁTOMO	1868	CG1	ILE	H	30	-19.637	16.259	0.770	1.00	35.17	H	C
ÁTOMO	1869	CG2	ILE	H	30	-19.225	18.663	1.356	1.00	36.84	H	C
ÁTOMO	1870	CD1	ILE	H	30	-21.038	16.515	0.308	1.00	43.88	H	C
ÁTOMO	1871	N	SER	H	31	-16.153	17.907	0.795	1.00	33.28	H	N
ÁTOMO	1872	CA	SER	H	31	-15.332	17.915	-0.403	1.00	37.16	H	C
ÁTOMO	1873	C	SER	H	31	-13.914	17.386	-0.236	1.00	38.76	H	C

ÁTOMO	1874	O	SER	H	31	-13.159	17.306	-1.208	1.00	39.05	H	O
ÁTOMO	1875	CB	SER	H	31	-15.304	19.319	-1.010	1.00	33.72	H	C
ÁTOMO	1876	OG	SER	H	31	-16.600	19.717	-1.417	1.00	41.28	H	O
ÁTOMO	1877	N	TYR	H	32	-13.570	17.001	0.988	1.00	37.10	H	N
ÁTOMO	1878	CA	TYR	H	32	-12.240	16.483	1.273	1.00	35.92	H	C
ÁTOMO	1879	C	TYR	H	32	-12.172	14.998	1.621	1.00	35.75	H	C
ÁTOMO	1880	O	TYR	H	32	-13.125	14.414	2.126	1.00	35.07	H	O
ÁTOMO	1881	CB	TYR	H	32	-11.622	17.265	2.419	1.00	31.81	H	C
ÁTOMO	1882	CG	TYR	H	32	-11.220	18.657	2.056	1.00	31.67	H	C
ÁTOMO	1883	CD1	TYR	H	32	-10.063	18.895	1.343	1.00	40.11	H	C
ÁTOMO	1884	CD2	TYR	H	32	-11.997	19.735	2.418	1.00	27.93	H	C
ÁTOMO	1885	CE1	TYR	H	32	-9.692	20.165	0.998	1.00	30.26	H	C
ÁTOMO	1886	CE2	TYR	H	32	-11.633	21.001	2.082	1.00	43.25	H	C
ÁTOMO	1887	CZ	TYR	H	32	-10.475	21.214	1.368	1.00	39.71	H	C
ÁTOMO	1888	OH	TYR	H	32	-10.103	22.493	1.026	1.00	65.73	H	O
ÁTOMO	1889	N	ALA	H	33	-11.024	14.399	1.326	1.00	33.25	H	N
ÁTOMO	1890	CA	ALA	H	33	-10.781	13.010	1.657	1.00	35.61	H	C
ÁTOMO	1891	C	ALA	H	33	-10.282	13.125	3.084	1.00	36.27	H	C
ÁTOMO	1892	O	ALA	H	33	-9.672	14.131	3.446	1.00	31.77	H	O
ÁTOMO	1893	CB	ALA	H	33	-9.707	12.433	0.779	1.00	28.41	H	C
ÁTOMO	1894	N	MET	H	34	-10.556	12.116	3.899	1.00	33.27	H	N
ÁTOMO	1895	CA	MET	H	34	-10.120	12.147	5.283	1.00	28.49	H	C
ÁTOMO	1896	C	MET	H	34	-9.231	10.958	5.555	1.00	28.00	H	C
ÁTOMO	1897	O	MET	H	34	-9.373	9.917	4.921	1.00	27.81	H	O
ÁTOMO	1898	CB	MET	H	34	-11.324	12.147	6.226	1.00	31.24	H	C
ÁTOMO	1899	CG	MET	H	34	-12.122	13.436	6.180	1.00	30.32	H	C
ÁTOMO	1900	SD	MET	H	34	-11.099	14.933	6.419	1.00	39.20	H	S
ÁTOMO	1901	CE	MET	H	34	-10.854	14.939	8.175	1.00	17.55	H	C
ÁTOMO	1902	N	SER	H	35	-8.308	11.113	6.497	1.00	28.90	H	N
ÁTOMO	1903	CA	SER	H	35	-7.391	10.035	6.808	1.00	24.89	H	C
ÁTOMO	1904	C	SER	H	35	-7.009	9.890	8.265	1.00	33.44	H	C
ÁTOMO	1905	O	SER	H	35	-7.102	10.828	9.045	1.00	35.02	H	O
ÁTOMO	1906	CB	SER	H	35	-6.118	10.200	5.990	1.00	21.68	H	C
ÁTOMO	1907	OG	SER	H	35	-6.378	10.012	4.612	1.00	32.05	H	O
ÁTOMO	1908	N	TRP	H	36	-6.591	8.686	8.631	1.00	34.43	H	N
ÁTOMO	1909	CA	TRP	H	36	-6.130	8.441	9.980	1.00	31.01	H	C
ÁTOMO	1910	C	TRP	H	36	-4.651	8.041	9.863	1.00	33.80	H	C
ÁTOMO	1911	O	TRP	H	36	-4.286	7.210	9.029	1.00	38.52	H	O
ÁTOMO	1912	CB	TRP	H	36	-6.945	7.324	10.643	1.00	30.03	H	C
ÁTOMO	1913	CG	TRP	H	36	-8.340	7.724	11.080	1.00	24.72	H	C
ÁTOMO	1914	CD1	TRP	H	36	-9.498	7.546	10.386	1.00	25.13	H	C
ÁTOMO	1915	CD2	TRP	H	36	-8.710	8.348	12.319	1.00	27.37	H	C
ÁTOMO	1916	NE1	TRP	H	36	-10.565	8.016	11.112	1.00	29.30	H	N
ÁTOMO	1917	CE2	TRP	H	36	-10.109	8.512	12.303	1.00	25.16	H	C
ÁTOMO	1918	CE3	TRP	H	36	-7.994	8.780	13.443	1.00	32.09	H	C
ÁTOMO	1919	CZ2	TRP	H	36	-10.809	9.089	13.365	1.00	22.18	H	C
ÁTOMO	1920	CZ3	TRP	H	36	-8.687	9.355	14.501	1.00	17.43	H	C
ÁTOMO	1921	CH2	TRP	H	36	-10.081	9.502	14.454	1.00	18.64	H	C
ÁTOMO	1922	N	VAL	H	37	-3.802	8.664	10.670	1.00	28.90	H	N
ÁTOMO	1923	CA	VAL	H	37	-2.369	8.367	10.672	1.00	28.13	H	C
ÁTOMO	1924	C	VAL	H	37	-1.922	8.214	12.115	1.00	27.45	H	C
ÁTOMO	1925	O	VAL	H	37	-2.258	9.032	12.968	1.00	32.69	H	O
ÁTOMO	1926	CB	VAL	H	37	-1.537	9.507	10.052	1.00	23.26	H	C
ÁTOMO	1927	CG1	VAL	H	37	-0.087	9.102	9.998	1.00	29.09	H	C
ÁTOMO	1928	CG2	VAL	H	37	-2.043	9.846	8.670	1.00	31.03	H	C
ATOMO	1929	N	ARG	H	38	-1.164	7.178	12.414	1.00	26.98	H	N
ÁTOMO	1930	CA	ARG	H	38	-0.736	7.018	13.796	1.00	31.26	H	C
ÁTOMO	1931	C	ARG	H	38	0.766	7.128	13.979	1.00	34.92	H	C
ÁTOMO	1932	O	ARG	H	38	1.539	7.100	13.011	1.00	36.42	H	O

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ÁTOMO	1933	CB	ARG H	38	-1.218	5.685	14.357	1.00	30.82	H	C
ÁTOMO	1934	CG	ARG H	38	-0.548	4.505	13.732	1.00	32.29	H	C
ÁTOMO	1935	CD	ARG H	38	-1.297	3.253	14.078	1.00	31.61	H	C
ÁTOMO	1936	NE	ARG H	38	-0.684	2.082	13.471	1.00	45.30	H	N
ÁTOMO	1937	CZ	ARG H	38	-1.174	0.855	13.568	1.00	49.14	H	C
ÁTOMO	1938	NH1	ARG H	38	-2.288	0.648	14.256	1.00	44.29	H	N
ÁTOMO	1939	NH2	ARG H	38	-0.556	-0.155	12.971	1.00	39.29	H	N
ÁTOMO	1940	N	GLN H	39	1.161	7.297	15.237	1.00	34.35	H	N
ÁTOMO	1941	CA	GLN H	39	2.564	7.394	15.600	1.00	36.21	H	C
ÁTOMO	1942	C	GLN H	39	2.768	6.396	16.714	1.00	32.94	H	C
ÁTOMO	1943	O	GLN H	39	2.097	6.442	17.739	1.00	36.86	H	O
ÁTOMO	1944	CB	GLN H	39	2.902	8.804	16.073	1.00	35.48	H	C
ÁTOMO	1945	CG	GLN H	39	4.375	9.038	16.273	1.00	40.46	H	C
ÁTOMO	1946	CD	GLN H	39	4.718	10.507	16.381	1.00	30.97	H	C
ÁTOMO	1947	OE1	GLN H	39	4.023	11.276	17.039	1.00	46.87	H	O
ÁTOMO	1948	NE2	GLN H	39	5.798	10.903	15.742	1.00	39.13	H	N
ÁTOMO	1949	N	THR H	40	3.681	5.468	16.498	1.00	32.21	H	N
ÁTOMO	1950	CA	THR H	40	3.951	4.444	17.485	1.00	26.95	H	C
ÁTOMO	1951	C	THR H	40	4.794	5.034	18.596	1.00	36.27	H	C
ÁTOMO	1952	O	THR H	40	5.338	6.131	18.466	1.00	33.90	H	O
ÁTOMO	1953	CB	THR H	40	4.707	3.278	16.860	1.00	25.60	H	C
ÁTOMO	1954	OG1	THR H	40	6.056	3.676	16.592	1.00	30.95	H	O
ÁTOMO	1955	CG2	THR H	40	4.049	2.867	15.552	1.00	19.81	H	C
ÁTOMO	1956	N	PRO H	41	4.891	4.319	19.721	1.00	43.34	H	N
ÁTOMO	1957	CA	PRO H	41	5.674	4.853	20.826	1.00	42.33	H	C
ÁTOMO	1958	C	PRO H	41	7.119	5.054	20.383	1.00	40.47	H	C
ÁTOMO	1959	O	PRO H	41	7.882	5.837	20.938	1.00	46.17	H	O
ÁTOMO	1960	CB	PRO H	41	5.609	3.858	21.983	1.00	46.00	H	C
ÁTOMO	1961	CG	PRO H	41	4.463	2.890	21.713	1.00	44.54	H	C
ÁTOMO	1962	CD	PRO H	41	4.124	3.171	20.174	1.00	37.36	H	C
ÁTOMO	1963	N	GLU H	42	7.491	4.257	19.367	1.00	39.84	H	N
ÁTOMO	1964	CA	GLU H	42	8.779	4.449	18.727	1.00	39.67	H	C
ÁTOMO	1965	C	GLU H	42	8.724	5.653	17.788	1.00	39.72	H	C
ÁTOMO	1966	O	GLU H	42	9.627	5.927	17.009	1.00	38.24	H	O
ÁTOMO	1967	CB	GLU H	42	9.119	3.172	17.953	1.00	43.69	H	C
ÁTOMO	1968	CG	GLU H	42	9.167	1.932	18.853	1.00	59.11	H	C
ÁTOMO	1969	CD	GLU H	42	7.786	1.324	18.945	1.00	78.32	H	C
ÁTOMO	1970	OE1	GLU H	42	7.323	0.767	17.959	1.00	71.16	H	O
ÁTOMO	1971	OE2	GLU H	42	7.189	1.394	20.020	1.00	93.36	H	O
ÁTOMO	1972	N	LYS H	43	7.571	6.354	17.856	1.00	37.86	H	N
ÁTOMO	1973	CA	LYS H	43	7.470	7.658	17.210	1.00	31.78	H	C
ÁTOMO	1974	C	LYS H	43	7.569	7.568	15.691	1.00	30.82	H	C
ÁTOMO	1975	O	LYS H	43	7.922	8.523	15.010	1.00	34.06	H	O
ÁTOMO	1976	CB	LYS H	43	8.596	8.534	17.748	1.00	30.63	H	C
ÁTOMO	1977	CG	LYS H	43	8.330	8.971	19.189	1.00	45.46	H	C
ÁTOMO	1978	CD	LYS H	43	9.247	10.113	19.627	1.00	83.82	H	C
ÁTOMO	1979	CE	LYS H	43	10.474	9.615	20.395	1.00	96.13	H	C
ÁTOMO	1980	NZ	LYS H	43	10.052	9.064	21.680	1.00	87.58	H	N
ÁTOMO	1981	N	ARG H	44	7,156	6.442	15.122	1.00	29.41	H	N
ÁTOMO	1982	CA	ARG H	44	7.087	6.323	13.668	1.00	29.46	H	C
ÁTOMO	1983	C	ARG H	44	5.640	6.520	13.204	1.00	33.48	H	C
ÁTOMO	1984	O	ARG H	44	4.710	5.953	13.787	1.00	37.98	H	O
ÁTOMO	1985	CB	ARG H	44	7.574	4.951	13.197	1.00	31.50	H	C
ÁTOMO	1986	CG	ARG H	44	9.044	4.701	13.379	1.00	35.58	H	C
ÁTOMO	1987	CD	ARG H	44	9.456	3.351	12.802	1.00	56.91	H	C
ÁTOMO	1988	NE	ARG H	44	9.904	3.439	11.412	1.00	71.87	H	N
ÁTOMO	1989	CZ	ARG H	44	10.966	4.139	11.007	1.00	70.52	H	C
ÁTOMO	1990	NH1	ARG H	44	11.989	4.322	11.832	1.00	72.59	H	N
ÁTOMO	1991	NH2	ARG H	44	10.995	4.672	9.785	1.00	65.12	H	N

ÁTOMO	1992	N	LEU H	45	5.457	7.315	12.150	1.00	30.81	H	N
ÁTOMO	1993	CA	LEU H	45	4.131	7.577	11.597	1.00	23.62	H	C
ÁTOMO	1994	C	LEU H	45	3.688	6.488	10.611	1.00	28.24	H	C
ÁTOMO	1995	O	LEU H	45	4.461	6.058	9.767	1.00	26.20	H	O
ÁTOMO	1996	CB	LEU H	45	4.131	8.938	10.898	1.00	18.00	H	C
ÁTOMO	1997	CG	LEU H	45	4.392	10.152	11.794	1.00	19.88	H	C
ÁTOMO	1998	CD1	LEU H	45	4.867	11.310	10.938	1.00	24.54	H	C
ÁTOMO	1999	CD2	LEU H	45	3.131	10.522	12.590	1.00	14.97	H	C
ÁTOMO	2000	N	GLU H	46	2.445	6.038	10.725	1.00	28.38	H	N
ÁTOMO	2001	CA	GLU H	46	1.924	5.022	9.818	1.00	26.32	H	C
ÁTOMO	2002	C	GLU H	46	0.508	5.374	9.344	1.00	26.58	H	C
ÁTOMO	2003	O	GLU H	46	-0.411	5.473	10.152	1.00	33.14	H	O
ÁTOMO	2004	CB	GLU H	46	1.874	3.638	10.496	1.00	35.21	H	C
ÁTOMO	2005	CG	GLU H	46	2.847	3.393	11.668	1.00	49.18	H	C
ÁTOMO	2006	CD	GLU H	46	2.785	1.943	12.231	1.00	64.81	H	C
ÁTOMO	2007	OE1	GLU H	46	1.691	1.473	12.630	1.00	67.38	H	O
ÁTOMO	2008	OE2	GLU H	46	3.844	1.269	12.280	1.00	52.21	H	O
ÁTOMO	2009	N	TRP H	47	0.327	5.577	8.045	1.00	30.57	H	N
ÁTOMO	2010	CA	TRP H	47	-1.012	5.751	7.500	1.00	25.48	H	C
ÁTOMO	2011	C	TRP H	47	-1.886	4.524	7.770	1.00	30.87	H	C
ÁTOMO	2012	O	TRP H	47	-1.548	3.393	7.443	1.00	32.26	H	O
ÁTOMO	2013	CB	TRP H	47	-0.885	5.991	5.996	1.00	25.25	H	C
ÁTOMO	2014	CG	TRP H	47	-2.202	5.841	5.341	1.00	23.75	H	C
ÁTOMO	2015	CD1	TRP H	47	-3.297	6.729	5.426	1.00	36.84	H	C
ÁTOMO	2016	CD2	TRP H	47	-2.617	4.754	4.481	1.00	23.08	H	C
ÁTOMO	2017	NE1	TRP H	47	-4.364	6.308	4.697	1.00	39.41	H	N
ÁTOMO	2018	CE2	TRP H	47	-3.948	5.025	4.078	1.00	27.40	H	C
ÁTOMO	2019	CE3	TRP H	47	-1.989	3.594	4.036	1.00	23.52	H	C
ÁTOMO	2020	CZ2	TRP H	47	-4.609	4.142	3.240	1.00	16.46	H	C
ÁTOMO	2021	CZ3	TRP H	47	-2.651	2.710	3.200	1.00	22.42	H	C
ÁTOMO	2022	CH2	TRP H	47	-3.972	2.986	2.803	1.00	27.75	H	C
ÁTOMO	2023	N	VAL H	48	-3.034	4.778	8.426	1.00	35.93	H	N
ÁTOMO	2024	CA	VAL H	48	-3.887	3.671	8.844	1.00	32.96	H	C
ÁTOMO	2025	C	VAL H	48	-5.099	3.492	7.925	1.00	31.29	H	C
ÁTOMO	2026	O	VAL H	48	-5.503	2.386	7.586	1.00	34.83	H	O
ÁTOMO	2027	CB	VAL H	48	-4.355	3.947	10.273	1.00	31.31	H	C
ÁTOMO	2028	CG1	VAL H	48	-5.379	2.896	10.698	1.00	45.32	H	C
ÁTOMO	2029	CG2	VAL H	48	-3.171	3.907	11.221	1.00	40.07	H	C
ÁTOMO	2030	N	ALA H	49	-5.715	4.632	7.555	1.00	32.57	H	N
ÁTOMO	2031	CA	ALA H	49	-6.900	4.560	6.706	1.00	30.97	H	C
ÁTOMO	2032	C	ALA H	49	-7.176	5.889	5.996	1.00	31.41	H	C
ÁTOMO	2033	O	ALA H	49	-6.710	6.947	6.399	1.00	35.89	H	O
ÁTOMO	2034	CB	ALA H	49	-8.093	4.181	7.585	1.00	27.71	H	C
ÁTOMO	2035	N	SER H	50	-7.942	5.801	4.915	1.00	28.70	H	N
ÁTOMO	2036	CA	SER H	50	-8.289	6.962	4.113	1.00	31.27	H	C
ÁTOMO	2037	C	SER H	50	-9.629	6.737	3.442	1.00	33.01	H	C
ÁTOMO	2038	O	SER H	50	-9.863	5.703	2.820	1.00	33.77	H	O
ÁTOMO	2039	CB	SER H	50	-7.229	7.220	3.036	1.00	29.77	H	C
ÁTOMO	2040	OG	SER H	50	-6.021	7.678	3.604	1.00	36.87	H	O
ÁTOMO	2041	N	ILE H	51	-10.508	7.717	3.575	1.00	31.73	H	N
ÁTOMO	2042	CA	ILE H	51	-11.828	7.646	2.978	1.00	30.25	H	C
ÁTOMO	2043	C	ILE H	51	-11.958	8.838	2.032	1.00	33.02	H	C
ÁTOMO	2044	O	ILE H	51	-11.591	9.966	2.380	1.00	35.69	H	O
ÁTOMO	2045	CB	ILE H	51	-12.919	7.695	4.079	1.00	29.54	H	C
ÁTOMO	2046	CG1	ILE H	51	-14.287	7.379	3.479	1.00	26.92	H	C
ÁTOMO	2047	CG2	ILE H	51	-12.925	9.051	4.754	1.00	23.38	H	C
ÁTOMO	2048	CD1	ILE H	51	-15.356	7.192	4.510	1.00	38.16	H	C
ÁTOMO	2049	N	SER H	52	-12.450	8.600	0.828	1.00	32.29	H	N
ÁTOMO	2050	CA	SER H	52	-12.533	9.725	-0.096	1.00	37.72	H	C

ÁTOMO	2051	C	SER	H	52	-13.920	10.368	-0.060	1.00	40.73	H C
ÁTOMO	2052	O	SER	H	52	-14.793	9.998	0.712	1.00	35.28	H O
ÁTOMO	2053	CB	SER	H	52	-12.218	9.216	-1.504	1.00	41.62	H C
ÁTOMO	2054	OG	SER	H	52	-13.410	8.701	-2.095	1.00	45.13	H O
ÁTOMO	2055	N	SER	H	53	-14.093	11.396	-0.908	1.00	47.25	H N
ÁTOMO	2056	CA	SER	H	53	-15.357	12.121	-0.908	1.00	50.61	H C
ÁTOMO	2057	C	SER	H	53	-16.543	11.198	-1.204	1.00	49.75	H C
ÁTOMO	2058	O	SER	H	53	-17.655	11.384	-0.725	1.00	53.91	H O
ÁTOMO	2059	CB	SER	H	53	-15.271	13.217	-1.969	1.00	52.83	H C
ÁTOMO	2060	OG	SER	H	53	-14.297	14.184	-1.575	1.00	58.40	H O
ÁTOMO	2061	N	GLY	H	54	-16.279	10.189	-2.056	1.00	45.24	H N
ÁTOMO	2062	CA	GLY	H	54	-17.355	9.296	-2.474	1.00	53.16	H C
ÁTOMO	2063	C	GLY	H	54	-17.537	8.118	-1.512	1.00	55.63	H C
ÁTOMO	2064	O	GLY	H	54	-18.380	7.250	-1.697	1.00	61.25	H O
ÁTOMO	2065	N	GLY	H	55	-16.673	8.082	-0.479	1.00	53.22	H N
ÁTOMO	2066	CA	GLY	H	55	-16.775	7.009	0.505	1.00	54.51	H C
ÁTOMO	2067	C	GLY	H	55	-16.009	5.760	0.062	1.00	55.03	H C
ÁTOMO	2068	O	GLY	H	55	-16.062	4.710	0.688	1.00	63.61	H O
ÁTOMO	2069	N	ASN	H	56	-15.076	5.866	-0.905	1.00	50.20	H N
ÁTOMO	2070	CA	ASN	H	56	-14.132	4.775	-1.117	1.00	53.18	H C
ÁTOMO	2071	C	ASN	H	56	-13.066	4.733	-0.020	1.00	51.97	H C
ÁTOMO	2072	O	ASN	H	56	-12.441	5.729	0.321	1.00	52.37	H O
ÁTOMO	2073	CB	ASN	H	56	-13.471	4.973	-2.482	1.00	61.77	H C
ÁTOMO	2074	CG	ASN	H	56	-14.484	4.728	-3.571	1.00	70.16	H C
ÁTOMO	2075	OD1	ASN	H	56	-14.773	5.591	-4.395	1.00	79.19	H O
ÁTOMO	2076	ND2	ASN	H	56	-15.032	3.501	-3.570	1.00	83.81	H N
ÁTOMO	2077	N	THR	H	57	-12.896	3.534	0.568	1.00	48.61	H N
ÁTOMO	2078	CA	THR	H	57	-11.950	3.401	1.670	1.00	40.92	H C
ÁTOMO	2079	C	THR	H	57	-10.671	2.672	1.248	1.00	38.31	H C
ÁTOMO	2080	O	THR	H	57	-10.627	1.959	0.254	1.00	40.67	H O
ÁTOMO	2081	CB	THR	H	57	-12.638	2.631	2.801	1.00	40.83	H C
ÁTOMO	2082	OG1	THR	H	57	-13.012	1.335	2.329	1.00	42.11	H O
ÁTOMO	2083	CG2	THR	H	57	-13.899	3.379	3.251	1.00	23.85	H C
ÁTOMO	2084	N	TYR	H	58	-9.590	2.906	1.978	1.00	40.21	H N
ÁTOMO	2085	CA	TYR	H	58	-8.307	2.302	1.653	1.00	38.47	H C
ÁTOMO	2086	C	TYR	H	58	-7.600	2.013	2.962	1.00	37.26	H C
ÁTOMO	2087	O	TYR	H	58	-7.653	2.816	3.888	1.00	39.78	H O
ÁTOMO	2088	CB	TYR	H	58	-7.448	3.246	0.803	1.00	37.94	H C
ÁTOMO	2089	CG	TYR	H	58	-8.165	3.856	-0.374	1.00	45.00	H C
ÁTOMO	2090	CD1	TYR	H	58	-9.022	4.937	-0.200	1.00	38.69	H C
ÁTOMO	2091	CD2	TYR	H	58	-7.996	3.350	-1.661	1.00	42.28	H C
ÁTOMO	2092	CE1	TYR	H	58	-9.688	5.497	-1.265	1.00	48.56	H C
ÁTOMO	2093	CE2	TYR	H	58	-8.664	3.904	-2.737	1.00	45.82	H C
ÁTOMO	2094	CZ	TYR	H	58	-9.510	4.979	-2.531	1.00	50.99	H C
ÁTOMO	2095	OH	TYR	H	58	-10.205	5.537	-3.582	1.00	45.05	H O
ÁTOMO	2096	N	TYR	H	59	-6.923	0.871	3.023	1.00	38.15	H N
ÁTOMO	2097	CA	TYR	H	59	-6.228	0.448	4.229	1.00	36.23	H C
ÁTOMO	2098	C	TYR	H	59	-4.923	-0.272	3.956	1.00	35.97	H C
ÁTOMO	2099	O	TYR	H	59	-4.744	-0.877	2.910	1.00	41.66	H O
ÁTOMO	2100	CB	TYR	H	59	-7.114	-0.521	4.990	1.00	32.92	H C
ÁTOMO	2101	CG	TYR	H	59	-8.483	0.001	5.308	1.00	33.05	H C
ÁTOMO	2102	CD1	TYR	H	59	-8.692	0.811	6.410	1.00	26.16	H C
ÁTOMO	2103	CD2	TYR	H	59	-9.578	-0.351	4.531	1.00	21.88	H C
ÁTOMO	2104	CE1	TYR	H	59	-9.949	1.248	6.738	1.00	28.20	H C
ÁTOMO	2105	CE2	TYR	H	59	-10.839	0.087	4.851	1.00	30.66	H C
ÁTOMO	2106	CZ	TYR	H	59	-11.018	0.883	5.961	1.00	27.82	H C
ÁTOMO	2107	OH	TYR	H	59	-12.274	1.296	6.325	1.00	47.49	H O
ÁTOMO	2108	N	PRO	H	60	-3.983	-0.209	4.901	1.00	42.07	H N

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ATOMO	2109	CA	PRO	H	60	-2.717	-0.912	4.691	1.00	42.47	H	C
ATOMO	2110	C	PRO	H	60	-3.021	-2.380	5.039	1.00	42.12	H	C
ATOMO	2111	O	PRO	H	60	-3.990	-2.667	5.748	1.00	34.35	H	O
ATOMO	2112	CB	PRO	H	60	-1.787	-0.282	5.728	1.00	37.68	H	C
ATOMO	2113	CG	PRO	H	60	-2.423	0.998	6.070	1.00	38.55	H	C
ATOMO	2114	CD	PRO	H	60	-3.881	0.718	6.039	1.00	41.23	H	C
ATOMO	2115	N	ASP	H	61	-2.213	-3.314	4.556	1.00	46.33	H	N
ATOMO	2116	CA	ASP	H	61	-2.466	-4.702	4.904	1.00	53.50	H	C
ATOMO	2117	C	ASP	H	61	-2.319	-4.842	6.415	1.00	52.80	H	C
ATOMO	2118	O	ASP	H	61	-2.773	-5.818	7.006	1.00	60.24	H	O
ATOMO	2119	CB	ASP	H	61	-1.467	-5.625	4.219	1.00	56.53	H	C
ATOMO	2120	CG	ASP	H	61	-1.512	-5.513	2.722	1.00	72.07	H	C
ATOMO	2121	OD1	ASP	H	61	-2.632	-5.429	2.161	1.00	70.71	H	O
ATOMO	2122	OD2	ASP	H	61	-0.421	-5.524	2.110	1.00	91.21	H	O
ATOMO	2123	N	SER	H	62	-1.672	-3.849	7.016	1.00	52.97	H	N
ATOMO	2124	CA	SER	H	62	-1.359	-3.808	8.438	1.00	48.81	H	C
ATOMO	2125	C	SER	H	62	-2.619	-3.866	9.309	1.00	49.13	H	C
ATOMO	2126	O	SER	H	62	-2.612	-4.355	10.431	1.00	48.28	H	O
ATOMO	2127	CB	SER	H	62	-0.589	-2.516	8.718	1.00	50.55	H	C
ATOMO	2128	OG	SER	H	62	-0.528	-2.299	10.127	1.00	60.82	H	O
ATOMO	2129	N	VAL	H	63	-3.723	-3.309	8.770	1.00	45.57	H	N
ATOMO	2130	CA	VAL	H	63	-4.947	-3.243	9.562	1.00	39.30	H	C
ATOMO	2131	C	VAL	H	63	-6.183	-3.685	8.770	1.00	37.75	H	C
ATOMO	2132	O	VAL	H	63	-7.301	-3.711	9.267	1.00	37.52	H	O
ATOMO	2133	CB	VAL	H	63	-5.128	-1.800	10.039	1.00	42.39	H	C
ATOMO	2134	CG1	VAL	H	63	-3.887	-1.349	10.809	1.00	34.90	H	C
ATOMO	2135	CG2	VAL	H	63	-5.337	-0.882	8.849	1.00	31.97	H	C
ATOMO	2136	N	LYS	H	64	-5.959	-4.004	7.482	1.00	40.88	H	N
ATOMO	2137	CA	LYS	H	64	-7.068	-4.431	6.636	1.00	47.29	H	C
ATOMO	2138	C	LYS	H	64	-7.836	-5.603	7.254	1.00	47.68	H	C
ATOMO	2139	O	LYS	H	64	-7.266	-6.604	7.666	1.00	46.11	H	O
ATOMO	2140	CB	LYS	H	64	-6.501	-4.839	5.275	1.00	49.64	H	C
ATOMO	2141	CG	LYS	H	64	-7.097	-4.021	4.128	1.00	59.25	H	C
ATOMO	2142	CD	LYS	H	64	-6.884	-4.688	2.768	1.00	71.56	H	C
ATOMO	2143	CE	LYS	H	64	-5.402	-4.805	2.398	1.00	81.53	H	C
ATOMO	2144	NZ	LYS	H	64	-4.916	-3.520	1.899	1.00	49.44	H	N
ATOMO	2145	N	GLY	H	65	-9.165	-5.387	7.295	1.00	47.28	H	N
ATOMO	2146	CA	GLY	H	65	-10.047	-6.409	7.845	1.00	42.18	H	C
ATOMO	2147	C	GLY	H	65	-10.249	-6.226	9.351	1.00	42.83	H	C
ATOMO	2148	O	GLY	H	65	-11.115	-6.832	9.971	1.00	50.95	H	O
ATOMO	2149	N	ARG	H	66	-9.381	-5.381	9.942	1.00	43.96	H	N
ATOMO	2150	CA	ARG	H	66	-9.459	-5.142	11.380	1.00	44.05	H	C
ATOMO	2151	C	ARG	H	66	-9.991	-3.739	11.703	1.00	43.62	H	C
ATOMO	2152	O	ARG	H	66	-10.440	-3.458	12.806	1.00	49.65	H	O
ATOMO	2153	CB	ARG	H	66	-8.054	-5.306	11.960	1.00	46.94	H	C
ATOMO	2154	CG	ARG	H	66	-7.998	-6.360	13.065	1.00	35.48	H	C
ATOMO	2155	CD	ARG	H	66	-6.616	-7.012	13.160	1.00	36.46	H	C
ATOMO	2156	NE	ARG	H	66	-5.577	-6.084	12.704	1.00	43.95	H	N
ATOMO	2157	CZ	ARG	H	66	-5.142	-5.162	13.584	1.00	50.13	H	C
ATOMO	2158	NH1	ARG		66	-5.650	-5.116	14.802	1.00	43.60	H	N
ATOMO	2159	NH2	ARG		66	-4.169	-4.317	13.229	1.00	44.39	H	N
ATOMO	2160	N	PHE		67	-9.864	-2.799	10.773	1.00	44.77	H	N
ATOMO	2161	CA	PHE		67	-10.226	-1.396	10.999	1.00	40.21	H	C
ATOMO	2162	C	PHE		67	-11.197	-0.910	9.919	1.00	41.98	H	C
ATOMO	2163	O	PHE		67	-11.115	-1.327	8.755	1.00	40.85	H	O
ATOMO	2164	CB	PHE		67	-8.972	-0.505	10.932	1.00	35.58	H	C
ATOMO	2165	CG	PHE		67	-8.052	-0.631	12.101	1.00	34.08	H	C
ATOMO	2166	CD1	PHE		67	-7.966	-1.803	12.826	1.00	46.65	H	C
ATOMO	2167	CD2	PHE		67	-7.234	0.428	12.457	1.00	34.35	H	C

ATOMO	2168	CE1	PHE H	67	-7.074	-1.916	13.890	1.00	47.26	H	C
ATOMO	2169	CE2	PHE H	67	-6.344	0.327	13.512	1.00	28.12	H	C
ATOMO	2170	CZ	PHE H	67	-6.263	-0.847	14.231	1.00	36.89	H	C
ATOMO	2171	N	THR H	68	-12.103	-0.015	10.294	1.00	36.98	H	N
ATOMO	2172	CA	THR H	68	-12.990	0.490	9.266	1.00	39.60	H	C
ATOMO	2173	C	THR H	68	-13.142	1.991	9.400	1.00	37.70	H	C
ATOMO	2174	O	THR H	68	-13.517	2.515	10.441	1.00	33.56	H	O
ATOMO	2175	CB	THR H	68	-14.353	-0.178	9.438	1.00	38.69	H	C
ATOMO	2176	OG1	THR H	68	-14.194	-1.595	9.356	1.00	38.20	H	O
ATOMO	2177	CG2	THR H	68	-15.300	0.271	8.319	1.00	40.05	H	C
ATOMO	2178	N	ILE H	69	-12.783	2.695	8.317	1.00	35.22	H	N
ATOMO	2179	CA	ILE H	69	-12.986	4.133	8.310	1.00	33.39	H	C
ATOMO	2180	C	ILE H	69	-14.365	4.494	7.763	1.00	29.12	H	C
ATOMO	2181	O	ILE H	69	-14.922	3.843	6.887	1.00	35.88	H	O
ATOMO	2182	CB	ILE H	69	-11.907	4.772	7.441	1.00	27.05	H	C
ATOMO	2183	CG1	ILE H	69	-12.088	6.295	7.426	1.00	28.35	H	C
ATOMO	2184	CG2	ILE H	69	-12.050	4.263	5.996	1.00	39.66	H	C
ATOMO	2185	CD1	ILE H	69	-10.819	7.041	7.837	1.00	19.70	H	C
ATOMO	2186	N	SER H	70	-14.928	5.556	8.356	1.00	30.01	H	N
ATOMO	2187	CA	SER H	70	-16.200	6.073	7.882	1.00	32.13	H	C
ATOMO	2188	C	SER H	70	-16.299	7.561	8.199	1.00	36.01	H	C
ATOMO	2189	O	SER H	70	-15.622	8.076	9.079	1.00	41.38	H	O
ATOMO	2190	CB	SER H	70	-17.325	5.310	8.588	1.00	25.57	H	C
ATOMO	2191	OG	SER H	70	-17.077	5.312	9.995	1.00	41.99	H	O
ATOMO	2192	N	ARG H	71	-17.245	8.171	7.500	1.00	35.84	H	N
ATOMO	2193	CA	ARG H	71	-17.510	9.585	7.679	1.00	34.27	H	C
ATOMO	2194	C	ARG H	71	-18.987	9.900	7.764	1.00	33.22	H	C
ATOMO	2195	O	ARG H	71	-19.806	9.240	7.142	1.00	36.66	H	O
ATOMO	2196	CB	ARG H	71	-16.894	10.356	6.508	1.00	31.22	H	C
ATOMO	2197	CG	ARG H	71	-17.360	9.860	5.147	1.00	24.64	H	C
ATOMO	2198	CD	ARG H	71	-16.570	10.499	4.049	1.00	24.11	H	C
ATOMO	2199	NE	ARG H	71	-16.406	11.925	4.319	1.00	39.13	H	N
ATOMO	2200	CZ	ARG H	71	-15.497	12.703	3.739	1.00	13.51	H	C
ATOMO	2201	NH1	ARG H	71	-14.654	12.209	2.838	1.00	21.43	H	N
ATOMO	2202	NH2	ARG H	71	-15.416	13.972	4.090	1.00	32.61	H	N
ATOMO	2203	N	ASP H	72	-19.324	10.907	8.556	1.00	37.54	H	N
ATOMO	2204	CA	ASP H	72	-20.700	11.355	8.676	1.00	37.74	H	C
ATOMO	2205	C	ASP H	72	-20.669	12.790	8.141	1.00	36.70	H	C
ATOMO	2206	O	ASP H	72	-20.260	13.724	8.842	1.00	29.75	H	O
ATOMO	2207	CB	ASP H	72	-21.150	11.342	10.129	1.00	41.57	H	C
ATOMO	2208	CG	ASP H	72	-22.622	11.677	10.284	1.00	48.19	H	C
ATOMO	2209	OD1	ASP H	72	-23.145	12.522	9.518	1.00	49.97	H	O
ATOMO	2210	OD2	ASP H	72	-23.257	11.103	11.194	1.00	56.29	H	O
ATOMO	2211	N	ASN H	73	-21.077	12.950	6.884	1.00	36.00	H	N
ATOMO	2212	CA	ASN H	73	-21.075	14.252	6.237	1.00	34.23	H	C
ATOMO	2213	C	ASN H	73	-22.025	15.261	6.837	1.00	38.06	H	C
ATOMO	2214	O	ASN H	73	-21.655	16.419	7.034	1.00	42.98	H	O
ATOMO	2215	CB	ASN H	73	-21.341	14.098	4.748	1.00	35.94	H	C
ATOMO	2216	CG	ASN H	73	-20.148	13.534	4.017	1.00	28.67	H	C
ATOMO	2217	OD1	ASN H	73	-19.034	13.567	4.523	1.00	38.30	H	O
ATOMO	2218	ND2	ASN H	73	-20.369	13.027	2.817	1.00	40.69	H	N
ATOMO	2219	N	ALA H	74	-23.246	14.837	7.135	1.00	40.21	H	N
ATOMO	2220	CA	ALA H	74	-24.205	15.747	7.736	1.00	39.70	H	C
ATOMO	2221	C	ALA H	74	-23.633	16.275	9.046	1.00	43.05	H	C
ATOMO	2222	O	ALA H	74	-23.592	17.484	9.275	1.00	44.60	H	O
ATOMO	2223	CB	ALA H	74	-25.509	15.038	7.988	1.00	42.51	H	C
ATOMO	2224	N	ARG H	75	-23.173	15.364	9.900	1.00	43.49	H	N
ATOMO	2225	CA	ARG H	75	-22.618	15.759	11.190	1.00	40.90	H	C
ATOMO	2226	C	ARG H	75	-21.177	16.231	11.119	1.00	37.75	H	C
ATOMO	2227	O	ARG H	75	-20.691	16.835	12.072	1.00	33.26	H	O
ATOMO	2228	CB	ARG H	75	-22.701	14.607	12.201	1.00	45.03	H	C

ÁTOMO	2229	CG	ARG	H	75	-24.098	14.287	12.709	1.00	61.37	H	C
ÁTOMO	2230	CD	ARG	H	75	-24.062	13.295	13.873	1.00	60.10	H	C
ÁTOMO	2231	NE	ARG	H	75	-23.498	13.905	15.074	1.00	78.94	H	N
ÁTOMO	2232	CZ	ARG	H	75	-23.312	13.272	16.232	1.00	84.66	H	C
ÁTOMO	2233	NH1	ARG	H	75	-22.787	13.929	17.268	1.00	58.25	H	N
ÁTOMO	2234	NH2	ARG	H	75	-23.647	11.988	16.357	1.00	80.63	H	N
ÁTOMO	2235	N	ASN	H	76	-20.504	15.964	9.999	1.00	35.22	H	N
ÁTOMO	2236	CA	ASN	H	76	-19.094	16.334	9.829	1.00	33.97	H	C
ÁTOMO	2237	C	ASN	H	76	-18.212	15.584	10.823	1.00	36.07	H	C
ÁTOMO	2238	O	ASN	H	76	-17.391	16.184	11.516	1.00	35.74	H	O
ÁTOMO	2239	CB	ASN	H	76	-18.884	17.834	10.030	1.00	32.35	H	C
ÁTOMO	2240	CG	ASN	H	76	-19.332	18.642	8.847	1.00	38.66	H	C
ÁTOMO	2241	OD1	ASN	H	76	-18.695	19.630	8.474	1.00	45.80	H	O
ÁTOMO	2242	ND2	ASN	H	76	-20.423	18.221	8.231	1.00	48.96	H	N
ÁTOMO	2243	N	ILE	H	77	-18.390	14.272	10.898	1.00	36.71	H	N
ÁTOMO	2244	CA	ILE	H	77	-17.600	13.476	11.804	1.00	32.46	H	C
ÁTOMO	2245	C	ILE	H	77	-16.944	12.340	11.050	1.00	35.64	H	C
ÁTOMO	2246	O	ILE	H	77	-17.548	11.725	10.174	1.00	35.33	H	O
ÁTOMO	2247	CB	ILE	H	77	-18.464	12.901	12.946	1.00	40.83	H	C
ÁTOMO	2248	CG1	ILE	H	77	-19.212	14.038	13.651	1.00	44.32	H	C
ÁTOMO	2249	CG2	ILE	H	77	-17.578	12.170	13.962	1.00	40.40	H	C
ÁTOMO	2250	CD1	ILE	H	77	-20.069	13.586	14.813	1.00	46.94	H	C
ÁTOMO	2251	N	LEU	H	78	-15.692	12.079	11.406	1.00	40.62	H	N
ÁTOMO	2252	CA	LEU	H	78	-14.882	11.020	10.806	1.00	37.20	H	C
ÁTOMO	2253	C	LEU	H	78	-14.783	9.910	11.854	1.00	36.25	H	C
ÁTOMO	2254	O	LEU	H	78	-14.611	10.187	13.039	1.00	41.81	H	O
ÁTOMO	2255	CB	LEU	H	78	-13.486	11.575	10.478	1.00	30.31	H	C
ÁTOMO	2256	CG	LEU	H	78	-12.471	10.688	9.765	1.00	14.90	H	C
ÁTOMO	2257	CD1	LEU	H	78	-12.957	10.314	8.404	1.00	28.76	H	C
ÁTOMO	2258	CD2	LEU	H	78	-11.163	11.414	9.673	1.00	31.63	H	C
ÁTOMO	2259	N	TYR	H	79	-14.885	8.658	11.426	1.00	35.10	H	N
ÁTOMO	2260	CA	TYR	H	79	-14.814	7.539	12.364	1.00	29.30	H	C
ÁTOMO	2261	C	TYR	H	79	-13.764	6.504	12.031	1.00	29.91	H	C
ÁTOMO	2262	O	TYR	H	79	-13.455	6.258	10.864	1.00	32.26	H	O
ÁTOMO	2263	CB	TYR	H	79	-16.155	6.803	12.428	1.00	28.95	H	C
ÁTOMO	2264	CG	TYR	H	79	-17.303	7.636	12.910	1.00	37.13	H	C
ÁTOMO	2265	CD1	TYR	H	79	-17.389	8.038	14.236	1.00	19.81	H	C
ÁTOMO	2266	CD2	TYR	H	79	-18.290	8.047	12.030	1.00	36.50	H	C
ÁTOMO	2267	CE1	TYR	H	79	-18.426	8.830	14.668	1.00	44.55	H	C
ÁTOMO	2268	CE2	TYR	H	79	-19.333	8.841	12.453	1.00	35.59	H	C
ÁTOMO	2269	CZ	TYR	H	79	-19.401	9.230	13.769	1.00	40.18	H	C
ÁTOMO	2270	OH	TYR	H	79	-20.456	10.014	14.181	1.00	44.04	H	O
ÁTOMO	2271	N	LEU	H	80	-13.221	5.897	13.076	1.00	32.78	H	N
ÁTOMO	2272	CA	LEU	H	80	-12.272	4.816	12.911	1.00	33.37	H	C
ÁTOMO	2273	C	LEU	H	80	-12.681	3.719	13.889	1.00	39.11	H	C
ÁTOMO	2274	O	LEU	H	80	-12.510	3.861	15.100	1.00	42.27	H	O
ÁTOMO	2275	CB	LEU	H	80	-10.833	5.248	13.202	1.00	27.32	H	C
ÁTOMO	2276	CG	LEU	H	80	-9.905	4.066	12.850	1.00	29.89	H	C
ÁTOMO	2277	CD1	LEU	H	80	-10.141	3.684	11.396	1.00	29.23	H	C
ÁTOMO	2278	CD2	LEU	H	80	-8.445	4.396	13.096	1.00	21.87	H	C
ÁTOMO	2279	N	GLN	H	81	-13.261	2.641	13.368	1.00	37.58	H	N
ÁTOMO	2280	CA	GLN	H	81	-13.588	1.586	14.268	1.00	35.42	H	C
ÁTOMO	2281	C	GLN	H	81	-12.477	0.589	14.176	1.00	35.75	H	C
ÁTOMO	2282	O	GLN	H	81	-11.955	0.295	13.108	1.00	38.97	H	O
ÁTOMO	2283	CB	GLN	H	81	-14.898	0.949	13.804	1.00	32.22	H	C
ÁTOMO	2284	CG	GLN	H	81	-15.181	-0.381	14.504	1.00	46.99	H	C
ÁTOMO	2285	CD	GLN	H	81	-16.017	-0.128	15.737	1.00	63.73	H	C
ÁTOMO	2286	OE1	GLN	H	81	-16.772	0.824	15.842	1.00	73.22	H	O
ÁTOMO	2287	NE2	GLN	H	81	-15.848	-1.048	16.707	1.00	54.60	H	N
ÁTOMO	2288	N	MET	H	82	-12.046	0.146	15.350	1.00	38.89	H	N
ÁTOMO	2289	CA	MET	H	82	-10.916	-0.759	15.462	1.00	38.00	H	C

ÁTOMO	2290	C	MET H	82	-11.369	-2.034	16.171	1.00	41.10	H	C
ÁTOMO	2291	O	MET H	82	-12.060	-1.982	17.192	1.00	42.49	H	O
ÁTOMO	2292	CB	MET H	82	-9.786	-0.079	16.236	1.00	40.92	H	C
ÁTOMO	2293	CG	MET H	82	-9.219	1.170	15.554	1.00	40.95	H	C
ÁTOMO	2294	SD	MET H	82	-7.917	1.992	16.522	1.00	43.01	H	S
ÁTOMO	2295	CE	MET H	82	-8.890	2.540	17.888	1.00	36.86	H	C
ÁTOMO	2296	N	SER H	82A	-10.994	-3.182	15.621	1.00	39.35	H	N
ÁTOMO	2297	CA	SER H	82A	-11.395	-4.446	16.214	1.00	42.12	H	C
ÁTOMO	2298	C	SER H	82A	-10.238	-5.431	16.242	1.00	43.14	H	C
ÁTOMO	2299	O	SER H	82A	-9.323	-5.335	15.431	1.00	41.79	H	O
ÁTOMO	2300	CI3	SER H	82A	-12.561	-5.052	15.428	1.00	42.50	H	C
ÁTOMO	2301	OG	SER H	82A	-12.101	-5.716	14.258	1.00	50.18	H	O
ÁTOMO	2302	N	SER H	82B	-10.293	-6.381	17.173	1.00	40.74	H	N
ÁTOMO	2303	CA	SER H	82B	-9.247	-7.383	17.304	1.00	45.65	H	C
ÁTOMO	2304	C	SER H	82B	-7.940	-6.652	17.535	1.00	44.33	H	C
ÁTOMO	2305	O	SER H	82B	-6.946	-6.935	16.866	1.00	51.78	H	O
ÁTOMO	2306	CB	SER H	82B	-9.129	-8.213	16.018	1.00	44.47	H	C
ÁTOMO	2307	OG	SER H	82B	-10.320	-8.914	15.721	1.00	53.60	H	O
ÁTOMO	2308	N	LEU H	82C	-7.934	-5.717	18.480	1.00	40.37	H	N
ÁTOMO	2309	CA	LEU H	82C	-6.730	-4.932	18.739	1.00	44.23	H	C
ÁTOMO	2310	C	LEU H	82C	-5.498	-5.720	19.171	1.00	42.91	H	C
ÁTOMO	2311	O	LEU H	82C	-5.581	-6.625	19.992	1.00	48.40	H	O
ÁTOMO	2312	CB	LEU H	82C	-7.032	-3.824	19.756	1.00	47.83	H	C
ÁTOMO	2313	CG	LEU H	82C	-7.982	-2.753	19.194	1.00	48.91	H	C
ÁTOMO	2314	CD1	LEU H	82C	-8.308	-1.699	20.243	1.00	42.50	H	C
ÁTOMO	2315	CD2	LEU H	82C	-7.340	-2.116	17.969	1.00	41.96	H	C
ÁTOMO	2316	N	ARG H	83	-4.354	-5.361	18.590	1.00	40.80	H	N
ÁTOMO	2317	CA	ARG H	83	-3.055	-5.936	18.895	1.00	36.37	H	C
ÁTOMO	2318	C	ARG H	83	-2.213	-4.938	19.694	1.00	35.99	H	C
ÁTOMO	2319	O	ARG H	83	-2.434	-3.735	19.663	1.00	47.57	H	O
ÁTOMO	2320	CB	ARG H	83	-2.359	-6.300	17.577	1.00	36.69	H	C
ÁTOMO	2321	CG	ARG H	83	-3.236	-7.145	16.646	1.00	40.16	H	C
ÁTOMO	2322	CD	ARG H	83	-2.544	-7.435	15.304	1.00	34.89	H	C
ÁTOMO	2323	NE	ARG H	83	-3.470	-8.063	14.349	1.00	58.83	H	N
ÁTOMO	2324	CZ	ARG H	83	-3.033	-8.224	13.083	1.00	64.19	H	C
ÁTOMO	2325	NH1	ARG H	83	-1.820	-7.821	12.741	1.00	74.93	H	N
ÁTOMO	2326	NH2	ARG H	83	-3.825	-8.810	12.177	1.00	64.50	H	N
ÁTOMO	2327	N	SER H	84	-1.201	-5.519	20.361	1.00	41.54	H	N
ÁTOMO	2328	CA	SER H	84	-0.376	-4.674	21.201	1.00	46.15	H	C
ÁTOMO	2329	C	SER H	84	0.260	-3.585	20.332	1.00	43.60	H	C
ÁTOMO	2330	O	SER H	84	0.646	-2.511	20.774	1.00	47.14	H	O
ÁTOMO	2331	CB	SER H	84	0.759	-5.531	21.817	1.00	41.31	H	C
ÁTOMO	2332	OG	SER H	84	0.202	-6.382	22.817	1.00	61.14	H	O
ÁTOMO	2333	N	GLU H	85	0.378	-3.916	19.031	1.00	45.78	H	N
ÁTOMO	2334	CA	GLU H	85	1.098	-3.027	18.121	1.00	44.02	H	C
ÁTOMO	2335	C	GLU H	85	0.219	-1.927	17.521	1.00	41.37	H	C
ÁTOMO	2336	O	GLU H	85	0.678	-1.027	16.823	1.00	47.91	H	O
ÁTOMO	2337	CB	GLU H	85	1.709	-3.873	17.006	1.00	47.56	H	C
ÁTOMO	2338	CG	GLU H	85	1.944	-5.318	17.438	1.00	66.27	H	C
ÁTOMO	2339	CD	GLU H	85	0.951	-6.200	16.728	1.00	83.88	H	C
ÁTOMO	2340	OE1	GLU H	85	0.500	-7.173	17.318	1.00	92.64	H	O
ÁTOMO	2341	OE2	GLU H	85	0.597	-5.873	15.599	1.00	78.20	H	O
ÁTOMO	2342	N	ASP H	86	-1.099	-2.034	17.767	1.00	34.93	H	N
ÁTOMO	2343	CA	ASP H	86	-1.967	-0.935	17.373	1.00	35.04	H	C
ÁTOMO	2344	C	ASP H	86	-1.996	0.141	18.461	1.00	31.78	H	C
ÁTOMO	2345	O	ASP H	86	-2.856	1.008	18.516	1.00	39.38	H	O
ÁTOMO	2346	CB	ASP H	86	-3.369	-1.484	17.111	1.00	31.18	H	C
ÁTOMO	2347	CG	ASP H	86	-3.287	-2.541	16.020	1.00	48.61	H	C
ÁTOMO	2348	OD1	ASP H	86	-2.847	-2.199	14.921	1.00	55.82	H	O
ÁTOMO	2349	OD2	ASP H	86	-3.632	-3.690	16.283	1.00	59.28	H	O
ÁTOMO	2350	N	THR H	87	-1.010	0.021	19.375	1.00	28.18	H	N

ATOMO	2351	CA	THR	H	87	-0.869	0.995	20.448	1.00	28.98	H	C
ATOMO	2352	C	THR	H	87	-0.116	2.236	19.965	1.00	25.03	H	C
ATOMO	2353	O	THR	H	87	1.070	2.202	19.660	1.00	29.03	H	O
ATOMO	2354	CB	THR	H	87	-0.080	0.324	21.576	1.00	32.63	H	C
ATOMO	2355	OG1	THR	H	87	-0.724	-0.899	21.940	1.00	45.72	H	O
ATOMO	2356	CG2	THR	H	87	-0.022	1.242	22.800	1.00	28.87	H	C
ATOMO	2357	N	ALA	H	88	-0.856	3.356	19.858	1.00	30.69	H	N
ATOMO	2358	CA	ALA	H	88	-0.225	4.581	19.382	1.00	28.18	H	C
ATOMO	2359	C	ALA	H	88	-1.188	5.769	19.418	1.00	27.71	H	C
ATOMO	2360	O	ALA	H	88	-2.368	5.636	19.717	1.00	30.07	H	O
ATOMO	2361	CB	ALA	H	88	0.252	4.343	17.949	1.00	23.69	H	C
ATOMO	2362	N	MET	H	89	-0.652	6.953	19.137	1.00	28.18	H	N
ATOMO	2363	CA	MET	H	89	-1.458	8.155	19.096	1.00	25.31	H	C
ATOMO	2364	C	MET	H	89	-2.140	8.117	17.736	1.00	23.34	H	C
ATOMO	2365	O	MET	H	89	-1.489	7.900	16.713	1.00	26.05	H	O
ATOMO	2366	CB	MET	H	89	-0.571	9.383	19.192	1.00	19.08	H	C
ATOMO	2367	CG	MET	H	89	-1.307	10.719	19.128	1.00	28.58	H	C
ATOMO	2368	SD	MET	H	89	-2.161	11.144	20.648	1.00	35.92	H	S
ATOMO	2369	CE	MET	H	89	-0.855	11.100	21.797	1.00	23.37	H	C
ATOMO	2370	N	TYR	H	90	-3.453	8.295	17.721	1.00	24.81	H	N
ATOMO	2371	CA	TYR	H	90	-4.190	8.274	16.464	1.00	28.47	H	C
ATOMO	2372	C	TYR	H	90	-4.611	9.683	16.032	1.00	35.61	H	C
ATOMO	2373	O	TYR	H	90	-5.294	10.401	16.776	1.00	38.42	H	O
ATOMO	2374	CB	TYR	H	90	-5.408	7.349	16.583	1.00	26.33	H	C
ATOMO	2375	CG	TYR	H	90	-5.038	5.894	16.487	1.00	21.83	H	C
ATOMO	2376	CD1	TYR	H	90	-4.360	5.256	17.523	1.00	21.33	H	C
ATOMO	2377	CD2	TYR	H	90	-5.308	5.170	15.337	1.00	23.34	H	C
ATOMO	2378	CE1	TYR	H	90	-3.957	3.940	17.416	1.00	13.25	H	C
ATOMO	2379	CE2	TYR	H	90	-4.910	3.853	15.215	1.00	32.16	H	C
ATOMO	2380	CZ	TYR	H	90	-4.235	3.244	16.256	1.00	32.37	H	C
ATOMO	2381	OH	TYR	H	90	-3.826	1.944	16.120	1.00	31.42	H	O
ATOMO	2382	N	TYR	H	91	-4.199	10.063	14.821	1.00	29.67	H	N
ATOMO	2383	CA	TYR	H	91	-4.482	11.386	14.277	1.00	27.68	H	C
ATOMO	2384	C	TYR	H	91	-5.437	11.423	13.105	1.00	30.61	H	C
ATOMO	2385	O	TYR	H	91	-5.311	10.607	12.193	1.00	30.06	H	O
ATOMO	2386	CB	TYR	H	91	-3.190	12.026	13.781	1.00	25.82	H	C
ATOMO	2387	CG	TYR	H	91	-2.193	12.378	14.848	1.00	36.87	H	C
ATOMO	2388	CD1	TYR	H	91	-2.378	13.493	15.653	1.00	30.76	H	C
ATOMO	2389	CD2	TYR	H	91	-1.057	11.601	15.049	1.00	24.87	H	C
ATOMO	2390	CE1	TYR	H	91	-1.471	13.821	16.616	1.00	21.54	H	C
ATOMO	2391	CE2	TYR	H	91	-0.149	11.929	16.011	1.00	20.34	H	C
ATOMO	2392	CZ	TYR	H	91	-0.365	13.039	16.790	1.00	19.98	H	C
ATOMO	2393	OH	TYR	H	91	0.536	13.375	17.763	1.00	38.12	H	O
ATOMO	2394	N	CYS	H	92	-6.396	12.352	13.120	1.00	34.72	H	N
ATOMO	2395	CA	CYS	H	92	-7.249	12.514	11.941	1.00	39.10	H	C
ATOMO	2396	C	CYS	H	92	-6.598	13.624	11.120	1.00	31.38	H	C
ATOMO	2397	O	CYS	H	92	-6.025	14.575	11.661	1.00	25.53	H	O
ATOMO	2398	CB	CYS	H	92	-8.737	12.860	12.245	1.00	35.33	H	C
ATOMO	2399	SG	CYS	H	92	-9.256	14.091	13.507	1.00	69.15	H	S
ATOMO	2400	N	ALA	H	93	-6.644	13.474	9.810	1.00	22.90	H	N
ATOMO	2401	CA	ALA	H	93	-6.063	14.464	8.942	1.00	23.14	H	C
ATOMO	2402	C	ALA	H	93	-6.899	14.620	7.692	1.00	31.52	H	C
ATOMO	2403	O	ALA	H	93	-7.472	13.654	7.178	1.00	37.17	H	O
ATOMO	2404	CB	ALA	H	93	-4.640	14.066	8.573	1.00	22.98	H	C
ATOMO	2405	N	ARG	H	94	-6.987	15.853	7.214	1.00	31.22	H	N
ATOMO	2406	CA	ARG	H	94	-7.718	16.112	5.993	1.00	27.88	H	C
ATOMO	2407	C	ARG	H	94	-6.723	15.771	4.885	1.00	30.21	H	C
ATOMO	2408	O	ARG	H	94	-5.586	16.244	4.902	1.00	35.06	H	O
ATOMO	2409	CB	ARG	H	94	-8.105	17.583	5.924	1.00	26.56	H	C
ATOMO	2410	CG	ARG	H	94	-9.146	17.905	4.880	1.00	32.06	H	C
ATOMO	2411	CD	ARG	H	94	-9.449	19.387	4.883	1.00	29.07	H	C

ATOMO	2411	CD	ARG	H	94	-9.449	19.387	4.883	1.00	29.07	H	C
ATOMO	2412	NE	ARG	H	94	-8.508	20.149	4.068	1.00	43.56	H	N
ATOMO	2413	CZ	ARG	H	94	-8.502	21.476	3.986	1.00	30.83	H	C
ATOMO	2414	NH1	ARG	H	94	-9.380	22.189	4.671	1.00	32.80	H	N
ATOMO	2415	NH2	ARG	H	94	-7.626	22.089	3.208	1.00	26.74	H	N
ATOMO	2416	N	LEU	H	95	-7.134	14.922	3.949	1.00	28.97	H	N
ATOMO	2417	CA	LEU	H	95	-6.369	14.534	2.771	1.00	29.42	H	C
ATOMO	2418	C	LEU	H	95	-6.686	15.429	1.571	1.00	34.07	H	C
ATOMO	2419	O	LEU	H	95	-7.687	15.275	0.885	1.00	43.12	H	O
ATOMO	2420	CB	LEU	H	95	-6.703	13.077	2.438	1.00	31.81	H	C
ATOMO	2421	CG	LEU	H	95	-5.882	12.539	1.263	1.00	17.92	H	C
ATOMO	2422	CD1	LEU	H	95	-4.381	12.512	1.564	1.00	33.14	H	C
ATOMO	2423	CD2	LEU	H	95	-6.265	11.111	0.872	1.00	43.38	H	C
ATOMO	2424	N	ASP	H	96	-5.805	16.423	1.356	1.00	33.38	H	N
ATOMO	2425	CA	ASP	H	96	-5.991	17.315	0.218	1.00	26.87	H	C
ATOMO	2426	C	ASP	H	96	-5.736	16.588	-1.105	1.00	28.04	H	C
ATOMO	2427	O	ASP	H	96	-5.942	17.112	-2.191	1.00	31.10	H	O
ATOMO	2428	CB	ASP	H	96	-5.021	18.489	0.367	1.00	20.28	H	C
ATOMO	2429	CG	ASP	H	96	-5.550	19.449	1.425	1.00	35.23	H	C
ATOMO	2430	OD1	ASP	H	96	-6.142	18.967	2.392	1.00	43.82	H	0
ATOMO	2431	OD2	ASP	H	96	-5.368	20.655	1.276	1.00	34.55	H	O
ATOMO	2432	N	GLY	H	97	-5.233	15.345	-0.982	1.00	35.21	H	N
ATOMO	2433	CA	GLY	H	97	-4.929	14.566	-2.178	1.00	34.98	H	C
ATOMO	2434	C	GLY	H	97	-3.509	13.995	-2.126	1.00	36.60	H	C
ATOMO	2435	O	GLY	H	97	-2.829	14.030	-1.109	1.00	55.18	H	O
ATOMO	2436	N	TYR	H	98	-3.080	13.414	-3.264	1.00	31.33	H	N
ATOMO	2437	CA	TYR	H	98	-1.726	12.873	-3.319	1.00	36.60	H	C
ATOMO	2438	C	TYR	H	98	-0.732	13.899	-3.869	1.00	38.11	H	C
ATOMO	2439	O	TYR	H	98	0.479	13.718	-3.839	1.00	38.31	H	O
ATOMO	2440	CB	TYR	H	98	-1.735	11.616	-4.192	1.00	33.71	H	C
ATOMO	2441	CG	TYR	H	98	-2.226	11.936	-5.559	1.00	38.48	H	C
ATOMO	2442	CD1	TYR	H	98	-1.549	12.869	-6.342	1.00	60.19	H	C
ATOMO	2443	CD2	TYR	H	98	-3.278	11.206	-6.116	1.00	58.17	H	C
ATOMO	2444	CE1	TYR	H	98	-1.902	13.051	-7.672	1.00	61.07	H	C
ATOMO	2445	CE2	TYR	H	98	-3.636	11.395	-7.442	1.00	66.49	H	C
ATOMO	2446	CZ	TYR	H	98	-2.954	12.313	-8.218	1.00	62.63	H	C
ATOMO	2447	OH	TYR	H	98	-3.289	12.487	-9.547	1.00	51.32	H	O
ATOMO	2448	N	TYR	H	99	-1.290	14.993	-4.421	1.00	34.57	H	N
ATOMO	2449	CA	TYR	H	99	-0.439	16.056	-4.942	1.00	28.11	H	C
ATOMO	2450	C	TYR	H	99	0.077	16.958	-3.819	1.00	30.06	H	C
ATOMO	2451	O	TYR	H	99	1.129	17.576	-3.918	1.00	45.17	H	O
ATOMO	2452	CB	TYR	H	99	-1.259	16.882	-5.933	1.00	35.30	H	C
ATOMO	2453	CG	TYR	H	99	-1.157	16.291	-7.294	1.00	45.25	H	C
ATOMO	2454	CD1	TYR	H	99	-2.191	16.474	-8.208	1.00	50.19	H	C
ATOMO	2455	CD2	TYR	H	99	-0.026	15.565	-7.666	1.00	67.32	H	C
ATOMO	2456	CE1	TYR	H	99	-2.090	15.946	-9.487	1.00	61.69	H	C
ATOMO	2457	CE2	TYR	H	99	0.070	15.028	-8.941	1.00	66.78	H	C
ATOMO	2458	CZ	TYR	H	99	-0.958	15.211	-9.847	1.00	61.53	H	C
ATOMO	2459	OH	TYR	H	99	-0.889	14.648	-11.107	1.00	64.87	H	O
ATOMO	2460	N	PHE	H	100	-0.868	16.958	-2.882	1.00	28.36	H	N
ATOMO	2461	CA	PHE	H	100	-0.843	17.912	-1.771	1.00	33.08	H	C
ATOMO	2462	C	PHE	H	100	-0.564	17.528	-0.313	1.00	32.51	H	C
ATOMO	2463	O	PHE	H	100	-0.409	18.414	0.510	1.00	28.93	H	O
ATOMO	2464	CB	PHE	H	100	-2.152	18.702	-1.836	1.00	35.07	H	C
ATOMO	2465	CG	PHE	H	100	-2.589	19.002	-3.244	1.00	40.19	H	C
ATOMO	2466	CD1	PHE	H	100	-1.920	19.958	-4.007	1.00	42.98	H	C
ATOMO	2467	CD2	PHE	H	100	-3.604	18.264	-3.841	1.00	32.65	H	C
ATOMO	2468	CE1	PHE	H	100	-2.256	20.160	-5.326	1.00	38.55	H	C
ATOMO	2469	CE2	PHE	H	100	-3.942	18.464	-5.164	1.00	22.61	H	C
ATOMO	2470	CZ	PHE	H	100	-3.272	19.407	-5.906	1.00	34.08	H	C

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ÁTOMO	2471	N	GLY	H	100A	-0.513	16.243	0.023	1.00	32.84	H	N
ÁTOMO	2472	CA	GLY	H	100A	-0.246	15.859	1.403	1.00	24.07	H	C
ÁTOMO	2473	C	GLY	H	100A	-1.375	15.977	2.433	1.00	31.86	H	C
ÁTOMO	2474	O	GLY	H	100A	-2.508	16.393	2.147	1.00	31.43	H	O
ÁTOMO	2475	N	PHE	H	100B	-1.062	15.565	3.656	1.00	31.62	H	N
ÁTOMO	2476	CA	PHE	H	100B	-2.009	15.648	4.756	1.00	30.23	H	C
ÁTOMO	2477	C	PHE	H	100B	-1.848	17.067	5.278	1.00	28.52	H	C
ÁTOMO	2478	O	PHE	H	100B	-0.932	17.358	6.045	1.00	32.67	H	O
ÁTOMO	2479	CB	PHE	H	100B	-1.681	14.617	5.845	1.00	35.30	H	C
ÁTOMO	2480	CG	PHE	H	100B	-1.841	13.186	5.394	1.00	37.11	H	C
ÁTOMO	2481	CD1	PHE	H	100B	-0.723	12.391	5.124	1.00	28.90	H	C
ÁTOMO	2482	CD2	PHE	H	100B	-3.104	12.641	5.211	1.00	27.19	H	C
ÁTOMO	2483	CE1	PHE	H	100B	-0.864	11.089	4.682	1.00	29.05	H	C
ÁTOMO	2484	CE2	PHE	H	100B	-3.252	11.329	4.766	1.00	27.20	H	C
ÁTOMO	2485	CZ	PHE	H	100B	-2.136	10.556	4.502	1.00	31.15	H	C
ÁTOMO	2486	N	ALA	H	101	-2.758	17.933	4.833	1.00	27.56	H	N
ÁTOMO	2487	CA	ALA	H	101	-2.760	19.355	5.154	1.00	25.66	H	C
ÁTOMO	2488	C	ALA	H	101	-3.142	19.783	6.570	1.00	25.19	H	C
ÁTOMO	2489	O	ALA	H	101	-2.666	20.790	7.069	1.00	36.47	H	O
ÁTOMO	2490	CB	ALA	H	101	-3.625	20.072	4.150	1.00	29.91	H	C
ÁTOMO	2491	N	TYR	H	102	-4.008	19.038	7.226	1.00	27.89	H	N
ÁTOMO	2492	CA	TYR	H	102	-4.398	19.414	8.574	1.00	25.32	H	C
ÁTOMO	2493	C	TYR	H	102	-4.423	18.174	9.432	1.00	24.39	H	C
ÁTOMO	2494	O	TYR	H	102	-4.814	17.104	8.968	1.00	30.42	H	O
ÁTOMO	2495	CB	TYR	H	102	-5.769	20.098	8.557	1.00	23.33	H	C
ÁTOMO	2496	CG	TYR	H	102	-5.724	21.484	7.938	1.00	32.18	H	C
ÁTOMO	2497	CD1	TYR	H	102	-5.415	22.610	8.716	1.00	28.43	H	C
ÁTOMO	2498	CD2	TYR	H	102	-5.923	21.662	6.565	1.00	26.31	H	C
ÁTOMO	2499	CE1	TYR	H	102	-5.306	23.843	8.158	1.00	10.30	H	C
ÁTOMO	2500	CE2	TYR	H	102	-5.812	22.896	5.995	1.00	16.36	H	C
ÁTOMO	2501	CZ	TYR	H	102	-5.504	23.990	6.794	1.00	34.64	H	C
ÁTOMO	2502	OH	TYR	H	102	-5.400	25.246	6.222	1.00	30.08	H	O
ÁTOMO	2503	N	TRP	H	103	-3.981	18.319	10.675	1.00	24.24	H	N
ÁTOMO	2504	CA	TRP	H	103	-3.950	17.213	11.608	1.00	28.55	H	C
ÁTOMO	2505	C	TRP	H	103	-4.657	17.635	12.888	1.00	30.13	H	C
ÁTOMO	2506	O	TRP	H	103	-4.653	18.811	13.249	1.00	37.40	H	O
ÁTOMO	2507	CB	TRP	H	103	-2.504	16.839	11.947	1.00	28.95	H	C
ÁTOMO	2508	CG	TRP	H	103	-1.662	16.413	10.790	1.00	25.38	H	C
ÁTOMO	2509	CD1	TRP	H	103	-1.428	17.107	9.634	1.00	18.65	H	C
ÁTOMO	2510	CD2	TRP	H	103	-0.956	15.178	10.665	1.00	30.58	H	C
ÁTOMO	2511	NE1	TRP	H	103	-0.630	16.374	8.797	1.00	21.56	H	N
ÁTOMO	2512	CE2	TRP	H	103	-0.330	15.183	9.403	1.00	25.47	H	C
ÁTOMO	2513	CE3	TRP	H	103	-0.796	14.065	11.495	1.00	28.45	H	C
ÁTOMO	2514	CZ2	TRP	H	103	0.436	14.123	8.956	1.00	15.55	H	C
ÁTOMO	2515	CZ3	TRP	H	103	-0.027	13.003	11.044	1.00	24.57		C
ÁTOMO	2516	CH2	TRP	H	103	0.574	13.039	9.786	1.00	26.41	H	C
ÁTOMO	2517	N	GLY	H	104	-5.268	16.677	13.573	1.00	30.49	H	N
ÁTOMO	2518	CA	GLY	H	104	-5.920	16.993	14.825	1.00	23.23	H	C
ÁTOMO	2519	C	GLY	H	104	-4.886	16.815	15.917	1.00	24.33	H	C
ÁTOMO	2520	O	GLY	H	104	-3.728	16.546	15.617	1.00	26.49	H	O
ÁTOMO	2521	N	GLN	H	105	-5.304	16.936	17.173	1.00	31.05	H	N
ÁTOMO	2522	CA	GLN	H	105	-4.403	16.809	18.313	1.00	30.94	H	C
ÁTOMO	2523	C	GLN	H	105	-4.074	15.370	18.673	1.00	34.31	H	C
ÁTOMO	2524	O	GLN	H	105	-3.222	15.124	19.524	1.00	41.91	H	O
ÁTOMO	2525	CB	GLN	H	105	-5.011	17.478	19.536	1.00	35.51	H	C
ÁTOMO	2526	CG	GLN	H	105	-6.191	18.384	19.228	1.00	52.15	H	C
ÁTOMO	2527	CD	GLN	H	105	-7.414	18.042	20.070	1.00	68.67	H	C
ÁTOMO	2528	OE1	GLN	H	105	-8.035	18.926	20.681	1.00	61.17	H	O
ÁTOMO	2529	NE2	GLN	H	105	-7.770	16.752	20.105	1.00	55.73	H	N
ÁTOMO	2530	N	GLY	H	106	-4.755	14.420	18.051	1.00	32.59	H	N

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ÁTOMO	2531	CA	GLY H	106	-4.490	13.026	18.354	1.00	28.33	H	C
ÁTOMO	2532	C	GLY H	106	-5.137	12.508	19.633	1.00	28.80	H	C
ÁTOMO	2533	O	GLY H	106	-5.420	13.258	20.567	1.00	30.10	H	O
ÁTOMO	2534	N	THR H	107	-5.384	11.209	19.668	1.00	29.41	H	N
ÁTOMO	2535	CA	THR H	107	-6.034	10.448	20.736	1.00	33.14	H	C
ÁTOMO	2536	C	THR H	107	-5.319	9.124	21.007	1.00	33.83	H	C
ÁTOMO	2537	O	THR H	107	-5.018	8.343	20.117	1.00	33.79	H	O
ÁTOMO	2538	CB	THR H	107	-7.494	10.180	20.360	1.00	30.92	H	C
ÁTOMO	2539	OG1	THR H	107	-8.205	9.778	21.533	1.00	42.28	H	O
ÁTOMO	2540	CG2	THR H	107	-7.572	9.043	19.335	1.00	32.35	H	C
ÁTOMO	2541	N	LEU H	108	-5.026	8.902	22.299	1.00	34.93	H	N
ÁTOMO	2542	CA	LEU H	108	-4.162	7.789	22.653	1.00	39.45	H	C
ÁTOMO	2543	C	LEU H	108	-4.918	6.471	22.836	1.00	36.37	H	C
ÁTOMO	2544	O	LEU H	108	-5.874	6.358	23.592	1.00	40.38	H	O
ÁTOMO	2545	CB	LEU H	108	-3.419	8.155	23.936	1.00	39.65	H	C
ÁTOMO	2546	CG	LEU H	108	-1.902	8.119	23.750	1.00	20.00	H	C
ÁTOMO	2547	CD1	LEU H	108	-1.186	9.177	24.596	1.00	20.00	H	C
ÁTOMO	2548	CD2	LEU H	108	-1.292	6.767	24.127	1.00	20.00	H	C
ÁTOMO	2549	N	VAL H	109	-4.448	5.462	22.077	1.00	33.52	H	N
ÁTOMO	2550	CA	VAL H	109	-4.950	4.107	22.268	1.00	38.50	H	C
ÁTOMO	2551	C	VAL H	109	-3.831	3.173	22.733	1.00	41.95	H	C
ÁTOMO	2552	O	VAL H	109	-2.822	2.980	22.068	1.00	45.65	H	O
ÁTOMO	2553	CB	VAL H	109	-5.504	3.612	20.935	1.00	34.93	H	C
ÁTOMO	2554	CG1	VAL H	109	-5.974	2.169	21.083	1.00	36.26	H	C
ÁTOMO	2555	CG2	VAL H	109	-6.670	4.478	20.494	1.00	27.03	H	C
ÁTOMO	2556	N	ALA H	110	-4.054	2.495	23.856	1.00	41.78	H	N
ÁTOMO	2557	CA	ALA H	110	-3.117	1.467	24.311	1.00	44.45	H	C
ÁTOMO	2558	C	ALA H	110	-3.807	0.132	24.542	1.00	42.44	H	C
ÁTOMO	2559	O	ALA H	110	-4.881	0.069	25.135	1.00	43.07	H	O
ÁTOMO	2560	CB	ALA H	110	-2.478	1.940	25.620	1.00	44.04	H	C
ÁTOMO	2561	N	VAL H	111	-3.181	-0.937	24.070	1.00	43.71	H	N
ÁTOMO	2562	CA	VAL H	111	-3.591	-2.301	24.195	1.00	46.41	H	C
ÁTOMO	2563	C	VAL H	111	-2.668	-3.122	25.091	1.00	48.72	H	C
ÁTOMO	2564	O	VAL H	111	-1.552	-3.511	24.737	1.00	51.00	H	O
ÁTOMO	2565	CB	VAL H	111	-3.684	-2.843	22.793	1.00	46.04	H	C
ÁTOMO	2566	CG1	VAL H	111	-4.683	-3.970	22.741	1.00	52.67	H	C
ÁTOMO	2567	CG2	VAL H	111	-4.189	-1.718	21.897	1.00	36.76	H	C
ÁTOMO	2568	N	SER H	112	-3.189	-3.346	26.316	1.00	53.18	H	N
ÁTOMO	2569	CA	SER H	112	-3.314	-3.814	27.691	1.00	60.09	H	C
ÁTOMO	2570	C	SER H	112	-4.756	-4.215	28.024	1.00	63.11	H	C
ÁTOMO	2571	O	SER H	112	-5.722	-3.626	27.567	1.00	62.24	H	O
ÁTOMO	2572	CB	SER H	112	-2.838	-2.698	28.621	1.00	59.39	H	C
ÁTOMO	2573	OG	SER H	112	-1.412	-2.761	28.734	1.00	68.30	H	O
ÁTOMO	2574	N	ALA H	113	-4.857	-5.297	28.814	1.00	69.58	H	N
ÁTOMO	2575	CA	ALA H	113	-3.631	-5.952	29.241	1.00	64.05	H	C
ÁTOMO	2576	C	ALA H	113	-3.050	-5.274	30.476	1.00	66.57	H	C
ÁTOMO	2577	O	ALA H	113	-1.951	-4.735	30.471	1.00	67.66	H	O
ÁTOMO	2578	CB	ALA H	113	-2.631	-5.866	28.085	1.00	61.17	H	C
ÁTOMO	2579	N	ALA H	114	-3.851	-5.290	31.555	1.00	74.52	H	N
ÁTOMO	2580	CA	ALA H	114	-3.501	-4.512	32.735	1.00	75.18	H	C
ÁTOMO	2581	C	ALA H	114	-4.589	-3.481	33.031	1.00	73.15	H	C
ÁTOMO	2582	O	ALA H	114	-5.200	-2.905	32.145	1.00	75.45	H	O
ÁTOMO	2583	CB	ALA H	114	-2.174	-3.801	32.469	1.00	81.16	H	C
ÁTOMO	2584	N	ALA H	115	-4.843	-3.279	34.333	1.00	20.00	H	N
ÁTOMO	2585	CA	ALA H	115	-5.951	-2.416	34.716	1.00	20.00	H	C
ÁTOMO	2586	C	ALA H	115	-5.508	-0.977	34.986	1.00	20.00	H	C
ÁTOMO	2587	O	ALA H	115	-4.381	-0.703	35.374	1.00	20.00	H	O
ÁTOMO	2588	CB	ALA H	115	-6.590	-3.008	35.973	1.00	20.00	H	C
ÁTOMO	2589	N	THR H	116	-6.447	-0.042	34.728	1.00	48.17	H	N
ÁTOMO	2590	CA	THR H	116	-6.197	1.360	35.045	1.00	49.91	H	C

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ÁTOMO	2591	C	THR H	116	-5.902	1.553	36.534	1.00	53.54	H	C
ÁTOMO	2592	O	THR H	116	-6.514	0.955	37.408	1.00	61.76	H	O
ÁTOMO	2593	CB	THR H	116	-7.435	2.174	34.652	1.00	51.97	H	C
ÁTOMO	2594	OG1	THR H	116	-8.157	2.541	35.832	1.00	59.75	H	O
ÁTOMO	2595	CG2	THR H	116	-8.353	1.345	33.753	1.00	67.33	H	C
ÁTOMO	2596	N	THR H	117	-4.893	2.401	36.803	1.00	55.71	H	N
ÁTOMO	2597	CA	THR H	117	-4.516	2.673	38.185	1.00	52.96	H	C
ÁTOMO	2598	C	THR H	117	-4.807	4.128	38.569	1.00	52.33	H	C
ÁTOMO	2599	O	THR H	117	-4.390	5.068	37.905	1.00	54.24	H	O
ÁTOMO	2600	CB	THR H	117	-3.019	2.381	38.325	1.00	54.81	H	C
ÁTOMO	2601	OG1	THR H	117	-2.778	1.015	37.979	1.00	57.21	H	O
ÁTOMO	2602	CG2	THR H	117	-2.561	2.616	39.771	1.00	68.96	H	C
ÁTOMO	2603	N	PRO H	118	-5.242	4.836	39.028	1.00	53.98	H	N
ÁTOMO	2604	CA	PRO H	118	-5.168	6.296	39.166	1.00	50.39	H	C
ÁTOMO	2605	C	PRO H	118	-3.872	6.738	39.851	1.00	51.76	H	C
ÁTOMO	2606	O	PRO H	118	-3.247	5.971	40.578	1.00	52.75	H	O
ÁTOMO	2607	CB	PRO H	118	-6.392	6.611	40.004	1.00	53.07	H	C
ÁTOMO	2608	CG	PRO H	118	-6.424	5.452	40.935	1.00	53.57	H	C
ÁTOMO	2609	CD	PRO H	118	-6.187	4.277	40.010	1.00	56.15	H	C
ÁTOMO	2610	N	PRO H	119	-3.460	7.992	39.634	1.00	50.77	H	N
ÁTOMO	2611	CA	PRO H	119	-2.234	8.518	40.231	1.00	51.99	H	C
ÁTOMO	2612	C	PRO H	119	-2.362	9.092	41.640	1.00	57.32	H	C
ÁTOMO	2613	O	PRO H	119	-3.462	9.238	42.177	1.00	60.85	H	O
ÁTOMO	2614	CB	PRO H	119	-1.824	9.590	39.237	1.00	47.61	H	C
ÁTOMO	2615	CG	PRO H	119	-3.141	10.178	38.879	1.00	45.24	H	C
ÁTOMO	2616	CD	PRO H	119	-3.998	8.943	38.645	1.00	53.33	H	C
ÁTOMO	2617	N	SER H	120	-1.206	9.410	42.220	1.00	57.59	H	N
ÁTOMO	2618	CA	SER H	120	-0.984	10.062	43.505	1.00	52.71	H	C
ÁTOMO	2619	C	SER H	120	-0.150	11.331	43.342	1.00	50.89	H	C
ÁTOMO	2620	O	SER H	120	0.994	11.313	42.911	1.00	55.25	H	O
ÁTOMO	2621	CB	SER H	120	-0.264	9.075	44.427	1.00	56.41	H	C
ÁTOMO	2622	OG	SER H	120	-1.175	8.049	44.829	1.00	63.45	H	O
ÁTOMO	2623	N	VAL H	121	-0.788	12.470	43.667	1.00	48.38	H	N
ÁTOMO	2624	CA	VAL H	121	-0.121	13.749	43.460	1.00	45.09	H	C
ÁTOMO	2625	C	VAL H	121	0.459	14.315	44.758	1.00	47.52	H	C
ÁTOMO	2626	O	VAL H	121	-0.246	14.717	45.677	1.00	50.74	H	O
ÁTOMO	2627	CB	VAL H	121	-1.141	14.727	42.872	1.00	42.48	H	C
ÁTOMO	2628	CG1	VAL H	121	-0.418	15.856	42.140	1.00	41.61	H	C
ÁTOMO	2629	CG2	VAL H	121	-2.052	14.002	41.898	1.00	38.28	H	C
ÁTOMO	2630	N	TYR H	122	1.803	14.298	44.822	1.00	48.88	H	N
ÁTOMO	2631	CA	TYR H	122	2.482	14.867	45.978	1.00	46.62	H	C
ÁTOMO	2632	C	TYR H	122	3.043	16.256	45.663	1.00	49.87	H	C
ÁTOMO	2633	O	TYR H	122	3.566	16.512	44.587	1.00	52.32	H	O
ÁTOMO	2634	CB	TYR H	122	3.622	13.924	46.372	1.00	42.13	H	C
ÁTOMO	2635	CG	TYR H	122	3.084	12.561	46.632	1.00	39.14	H	C
ÁTOMO	2636	CD1	TYR H	122	2.084	12.381	47.583	1.00	33.27	H	C
ÁTOMO	2637	CD2	TYR H	122	3.566	11.462	45.921	1.00	26.44	H	C
ÁTOMO	2638	CE1	TYR H	122	1.560	11.118	47.816	1.00	39.62	H	C
ÁTOMO	2639	CE2	TYR H	122	3.049	10.197	46.160	1.00	41.31	H	C
ÁTOMO	2640	CZ	TYR H	122	2.055	10.022	47.106	1.00	39.35	H	C
ÁTOMO	2641	OH	TYR H	122	1.547	8.763	47.359	1.00	46.83	H	O
ÁTOMO	2642	N	PRO H	123	2.944	17.168	46.634	1.00	49.83	H	N
ÁTOMO	2643	CA	PRO H	123	3.453	18.536	46.513	1.00	48.21	H	C
ÁTOMO	2644	C	PRO H	123	4.960	18.606	46.720	1.00	50.86	H	C
ÁTOMO	2645	O	PRO H	123	5.514	17.917	47.581	1.00	55.89	H	O
ÁTOMO	2646	CB	PRO H	123	2.683	19.271	47.595	1.00	52.97	H	C
ÁTOMO	2647	CG	PRO H	123	2.564	18.226	48.667	1.00	51.62	H	C
ÁTOMO	2648	CD	PRO H	123	2.201	16.986	47.893	1.00	43.80	H	C
ÁTOMO	2649	N	'LEU H	124	5.626	19.432	45.923	1.00	49.83	H	N
ÁTOMO	2650	CA	LEU H	124	7.066	19.575	46.038	1.00	52.27	H	C

ÁTOMO	2651	C	LEU H 124	7.407	20.984	46.455	1.00	48.73	H	C
ÁTOMO	2652	O	LEU H 124	7.380	21.915	45.648	1.00	48.20	H	O
ÁTOMO	2653	CB	LEU H 124	7.767	19.224	44.715	1.00	56.15	H	C
ÁTOMO	2654	CG	LEU H 124	7.671	17.772	44.212	1.00	53.01	H	C
ÁTOMO	2655	CD1	LEU H 124	8.332	17.628	42.853	1.00	48.39	H	C
ÁTOMO	2656	CD2	LEU H 124	8.326	16.840	45.212	1.00	59.89	H	C
ÁTOMO	2657	N	ALA H 125	7.717	21.118	47.739	1.00	50.01	H	N
ÁTOMO	2658	CA	ALA H 125	8.080	22.389	48.337	1.00	52.85	H	C
ÁTOMO	2659	C	ALA H 125	9.551	22.353	48.710	1.00	54.62	H	C
ÁTOMO	2660	O	ALA H 125	10.094	21.295	49.017	1.00	52.85	H	O
ÁTOMO	2661	CB	ALA H 125	7.241	22.631	49.580	1.00	58.29	H	C
ÁTOMO	2662	N	PRO H 126	10.221	23.514	48.676	1.00	53.35	H	N
ÁTOMO	2663	CA	PRO H 126	11.639	23.574	49.027	1.00	54.53	H	C
ÁTOMO	2664	C	PRO H 126	11.834	23.154	50.475	1.00	56.27	H	C
ÁTOMO	2665	O	PRO H 126	10.808	23.018	51.175	1.00	61.53	H	O
ÁTOMO	2666	CB	PRO H 126	11.985	25.040	48.803	1.00	53.66	H	C
ÁTOMO	2667	CG	PRO H 126	10.694	25.727	49.091	1.00	60.53	H	C
ÁTOMO	2668	CD	PRO H 126	9.705	24.858	48.370	1.00	48.22	H	C
ÁTOMO	2669	OXT	PRO H 126	12.997	22.974	50.894	1.00	62.11	H	O
ÁTOMO	2670	N	THR H 132	16.845	30.323	49.326	1.00	131.55	H	N
ÁTOMO	2671	CA	THR H 132	15.835	30.845	48.416	1.00	132.47	H	C
ÁTOMO	2672	C	THR H 132	16.091	32.322	48.094	1.00	130.65	H	C
ÁTOMO	2673	O	THR H 132	15.683	33.228	48.815	1.00	132.15	H	O
ÁTOMO	2674	CB	THR H 132	14.472	30.679	49.089	1.00	132.60	H	C
ÁTOMO	2675	OG1	THR H 132	14.446	31.461	50.283	1.00	134.97	H	O
ÁTOMO	2676	CG2	THR H 132	14.250	29.214	49.466	1.00	131.87	H	C
ÁTOMO	2677	N	ASN H 133	16.828	32.548	46.981	1.00	126.17	H	N
ÁTOMO	2678	CA	ASN H 133	17.281	33.902	46.666	1.00	123.00	H	C
ÁTOMO	2679	C	ASN H 133	17.045	34.267	45.195	1.00	118.12	H	C
ÁTOMO	2680	O	ASN H 133	17.646	33.716	44.283	1.00	118.63	H	O
ÁTOMO	2681	CB	ASN H 133	18.787	33.958	46.968	1.00	124.75	H	C
ÁTOMO	2682	CG	ASN H 133	19.063	34.983	48.039	1.00	125.18	H	C
ÁTOMO	2683	OD1	ASN H 133	18.749	34.801	49.212	1.00	130.25	H	O
ÁTOMO	2684	ND2	ASN H 133	19.650	36.111	47.602	1.00	119.92	H	N
ÁTOMO	2685	N	SER H 134	16.086	35.203	44.979	1.00	109.67	H	N
ÁTOMO	2686	CA	SER H 134	15.901	35.788	43.649	1.00	100.82	H	C
ÁTOMO	2687	C	SER H 134	14.782	35.123	42.828	1.00	95.38	H	C
ÁTOMO	2688	O	SER H134	14.092	35.767	42.048	1.00	96.71	H	O
ÁTOMO	2689	CB	SER H134	17.225	35.729	42.888	1.00	102.40	H	C
ÁTOMO	2690	OG	SER H134	17.391	36.936	42.142	1.00	92.26	H	O
ÁTOMO	2691	N	MET H135	14.681	33.758	42.950	1.00	85.97	H	N
ÁTOMO	2692	CA	MET H135	13.640	33.007	42.214	1.00	75.45	H	C
ÁTOMO	2693	C	MET H135	13.234	31.737	42.977	1.00	68.66	H	C
ÁTOMO	2694	O	MET H135	13.837	31.393	44.037	1.00	67.11	H	O
ÁTOMO	2695	CB	MET H135	14.158	32.619	40.827	1.00	78.16	H	C
ÁTOMO	2696	CG	MET H135	13.679	33.454	39.620	1.00	87.38	H	C
ÁTOMO	2697	SD	MET H135	11.912	33.393	39.425	1.00	112.31	H	S
ÁTOMO	2698	CE	MET H135	11.764	33.473	37.638	1.00	95.09	H	C
ÁTOMO	2699	N	VAL H136	12.396	30.924	42.576	1.00	66.53	H	N
ÁTOMO	2700	CA	VAL H136	11.862	29.787	43.312	1.00	64.38	H	C
ÁTOMO	2701	C	VAL H136	11.450	28.655	42.383	1.00	60.86	H	C
ÁTOMO	2702	O	VAL H136	10.794	28.881	41.369	1.00	60.52	H	O
ÁTOMO	2703	CB	VAL H136	10.649	30.194	44.185	1.00	63.71	H	C

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ATOMO	2704	CG1	VAL	H	136	10.017	28.972	44.813	1.00	66.52	H	C
ATOMO	2705	CG2	VAL	H	136	11.092	31.164	45.262	1.00	70.97	H	C
ATOMO	2706	N	THR	H	137	11.817	27.444	42.607	1.00	60.78	H	N
ATOMO	2707	CA	THR	H	137	11.265	26.333	41.842	1.00	55.89	H	C
ATOMO	2708	C	THR	H	137	10.464	25.399	42.735	1.00	52.85	H	C
ATOMO	2709	O	THR	H	137	10.980	24.867	43.714	1.00	51.83	H	O
ATOMO	2710	CB	THR	H	137	12.358	25.492	41.165	1.00	54.09	H	C
ATOMO	2711	OG1	THR	H	137	12.942	26.229	40.087	1.00	48.58	H	O
ATOMO	2712	CG2	THR	H	137	11.772	24.201	40.637	1.00	57.49	H	C
ATOMO	2713	N	LEU	H	138	9.195	25.219	42.404	1.00	50.91	H	N
ATOMO	2714	CA	LEU	H	138	8.350	24.318	43.162	1.00	51.88	H	C
ATOMO	2715	C	LEU	H	138	8.027	23.184	42.220	1.00	49.95	H	C
ATOMO	2716	O	LEU	H	138	8.260	23.294	41.012	1.00	53.08	H	O
ATOMO	2717	CB	LEU	H	138	7.071	25.016	43.622	1.00	50.53	H	C
ATOMO	2718	CG	LEU	H	138	7.313	26.155	44.613	1.00	46.88	H	C
ATOMO	2719	CD1	LEU	H	138	5.996	26.848	44.934	1.00	62.88	H	C
ATOMO	2720	CD2	LEU	H	138	7.944	25.611	45.870	1.00	75.29	H	C
ATOMO	2721	N	GLY	H	139	7.498	22.091	42.753	1.00	47.47	H	N
ATOMO	2722	CA	GLY	H	139	7.197	20.974	41.887	1.00	46.51	H	C
ATOMO	2723	C	GLY	H	139	5.959	20.195	42.244	1.00	47.53	H	C
ATOMO	2724	O	GLY	H	139	5.297	20.467	43.235	1.00	48.18	H	O
ATOMO	2725	N	CYS	H	140	5.663	19.205	41.414	1.00	52.13	H	N
ATOMO	2726	CA	CYS	H	140	4.503	18.351	41.592	1.00	54.83	H	C
ATOMO	2727	C	CYS	H	140	4.940	16.925	41.247	1.00	49.40	H	C
ATOMO	2728	O	CYS	H	140	5.633	16.698	40.250	1.00	44.99	H	O
ATOMO	2729	CB	CYS	H	140	3.377	18.813	40.655	1.00	57.10	H	C
ATOMO	2730	SG	CYS	H	140	1.704	18.276	41.141	1.00	76.47	H	S
ATOMO	2731	N	LEU	H	141	4.548	15.969	42.081	1.00	46.30	H	N
ATOMO	2732	CA	LEU	H	141	4.910	14.580	41.850	1.00	42.12	H	C
ATOMO	2733	C	LEU	H	141	3.646	13.734	41.662	1.00	40.17	H	C
ATOMO	2734	O	LEU	H	141	2.882	13.523	42.601	1.00	39.80	H	O
ATOMO	2735	CB	LEU	H	141	5.735	14.055	43.031	1.00	46.51	H	C
ATOMO	2736	CG	LEU	H	141	6.288	12.631	42.945	1.00	52.01	H	C
ATOMO	2737	CD1	LEU	H	141	7.259	12.570	41.784	1.00	55.61	H	C
ATOMO	2738	CD2	LEU	H	141	7.002	12.237	44.232	1.00	52.23	H	C
ATOMO	2739	N	VAL	H	142	3.440	13.268	40.432	1.00	38.37	H	N
ATOMO	2740	CA	VAL	H	142	2.291	12.450	40.068	1.00	37.81	H	C
ATOMO	2741	C	VAL	H	142	2.758	10.999	39.994	1.00	43.46	H	C
ATOMO	2742	O	VAL	H	142	3.168	10.522	38.935	1.00	44.35	H	O
ATOMO	2743	CB	VAL	H	142	1.729	12.889	38.695	1.00	37.90	H	C
ATOMO	2744	CG1	VAL	H	142	0.661	11.913	38.221	1.00	34.13	H	C
ATOMO	2745	CG2	VAL	H	142	1.149	14.283	38.799	1.00	29.37	H	C
ATOMO	2746	N	LYS	H	143	2.684	10.292	41.118	1.00	45.16	H	N
ATOMO	2747	CA	LYS	H	143	3.163	8.920	41.167	1.00	41.48	H	C
ATOMO	2748	C	LYS	H	143	2.141	7.798	40.999	1.00	46.30	H	C
ATOMO	2749	O	LYS	H	143	1.027	7.834	41.549	1.00	45.34	H	O
ATOMO	2750	CB	LYS	H	143	3.939	8.711	42.467	1.00	43.20	H	C
ATOMO	2751	CG	LYS	H	143	4.963	7.582	42.413	1.00	41.99	H	C
ATOMO	2752	CD	LYS	H	143	5.743	7.500	43.720	1.00	42.24	H	C
ATOMO	2753	CE	LYS	H	143	6.993	6.653	43.589	1.00	52.65	H	C
ATOMO	2754	NZ	LYS	H	143	6.693	5.280	43.090	1.00	67.31	H	N
ATOMO	2755	N	GLY	H	144	2.549	6.791	40.233	1.00	47.62	H	N
ATOMO	2756	CA	GLY	H	144	1.704	5.640	39.988	1.00	52.58	H	C
ATOMO	2757	C	GLY	H	144	0.369	5.882	39.299	1.00	55.82	H	C
ATOMO	2758	O	GLY	H	144	-0.560	6.422	39.890	1.00	63.65	H	O
ATOMO	2759	N	TYR	H	145	0.283	5.482	38.037	1.00	52.96	H	N
ATOMO	2760	CA	TYR	H	145	-0.942	5.599	37.259	1.00	46.96	H	C
ATOMO	2761	C	TYR	H	145	-0.820	4.849	35.930	1.00	44.52	H	C
ATOMO	2762	O	TYR	H	145	0.277	4.623	35.418	1.00	43.14	H	O

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ÁTOMO	2763	CB	TYR	H	145	-1.302	7.062	37.002	1.00	41.24	H	C
ÁTOMO	2764	CG	TYR	H	145	-0.336	7.807	36.121	1.00	54.18	H	C
ÁTOMO	2765	CD1	TYR	H	145	0.721	8.522	36.670	1.00	52.12	H	C
ÁTOMO	2766	CD2	TYR	H	145	-0.501	7.827	34.740	1.00	37.28	H	C
ÁTOMO	2767	CE1	TYR	H	145	1.586	9.246	35.871	1.00	48.23	H	C
ÁTOMO	2768	CE2	TYR	H	145	0.358	8.543	33.934	1.00	45.82	H	C
ÁTOMO	2769	CZ	TYR	H	145	1.399	9.258	34.506	1.00	53.37	H	C
ÁTOMO	2770	OH	TYR	H	145	2.232	10.020	33.716	1.00	51.96	H	O
ÁTOMO	2771	N	PHE	H	146	-1.963	4.454	35.385	1.00	47.52	H	N
ÁTOMO	2772	CA	PHE	H	146	-2.002	3.718	34.133	1.00	40.66	H	C
ÁTOMO	2773	C	PHE	H	146	-3.418	3.793	33.579	1.00	38.13	H	C
ÁTOMO	2774	O	PHE	H	146	-4.387	3.717	34.324	1.00	37.80	H	O
ÁTOMO	2775	CB	PHE	H	146	-1.600	2.266	34.387	1.00	32.65	H	C
ÁTOMO	2776	CG	PHE	H	146	-1.391	1.468	33.139	1.00	40.82	H	C
ÁTOMO	2777	CD1	PHE	H	146	-2.463	0.908	32.463	1.00	41.99	H	C
ÁTOMO	2778	CD2	PHE	H	146	-0.119	1.288	32.625	1.00	38.82	H	C
ÁTOMO	2779	CE1	PHE	H	146	-2.266	0.188	31.305	1.00	39.34	H	C
ÁTOMO	2780	CE2	PHE	H	146	0.080	0.567	31.460	1.00	32.29	H	C
ÁTOMO	2781	CZ	PHE	H	146	-0.995	0.019	30.804	1.00	28.82	H	C
ÁTOMO	2782	N	PRO	H	147	-3.554	3.994	32.262	1.00	41.70	H	N
ÁTOMO	2783	CA	PRO	H	147	-2.444	4.151	31.325	1.00	39.65	H	C
ÁTOMO	2784	C	PRO	H	147	-2.207	5.630	31.123	1.00	41.99	H	C
ÁTOMO	2785	O	PRO	H	147	-2.689	6.456	31.898	1.00	39.17	H	O
ÁTOMO	2786	CB	PRO	H	147	-2.986	3.507	30.068	1.00	41.33	H	C
ÁTOMO	2787	CG	PRO	H	147	-4.403	4.014	30.077	1.00	36.45	H	C
ÁTOMO	2788	CD	PRO	H	147	-4.829	3.857	31.530	1.00	45.61	H	C
ÁTOMO	2789	N	GLU	H	148	-1.459	5.961	30.080	1.00	40.49	H	N
ÁTOMO	2790	CA	GLU	H	148	-1.200	7.352	29.770	1.00	42.77	H	C
ÁTOMO	2791	C	GLU	H	148	-2.481	7.814	29.103	1.00	48.73	H	C
ÁTOMO	2792	O	GLU	H	148	-3.292	6.993	28.683	1.00	56.82	H	O
ÁTOMO	2793	CB	GLU	H	148	-0.021	7.464	28.809	1.00	41.73	H	C
ÁTOMO	2794	CG	GLU	H	148	1.342	7.286	29.473	1.00	44.10	H	C
ÁTOMO	2795	CD	GLU	H	148	1.914	8.593	30.018	1.00	54.54	H	C
ÁTOMO	2796	OE1	GLU	H	148	1.268	9.240	30.872	1.00	49.74	H	O
ÁTOMO	2797	OE2	GLU	H	148	3.021	8.977	29.584	1.00	48.09	H	O
ÁTOMO	2798	N	PRO	H	149	-2.698	9.131	29.018	1.00	48.93	H	N
ÁTOMO	2799	CA	PRO	H	149	-1.771	10.127	29.533	1.00	46.06	H	C
ÁTOMO	2800	C	PRO	H	149	-2.349	10.712	30.808	1.00	46.54	H	C
ÁTOMO	2801	O	PRO	H	149	-3.262	10.155	31.410	1.00	52.02	H	O
ÁTOMO	2802	CB	PRO	H	149	-1.760	11.148	28.424	1.00	47.59	H	C
ÁTOMO	2803	CG	PRO	H	149	-3.227	11.241	28.133	1.00	35.29	H	C
ÁTOMO	2804	CD	PRO	H	149	-3.673	9.775	28.118	1.00	46.53	H	C
ÁTOMO	2805	N	VAL	H	150	-1.797	11.845	31.199	1.00	46.48	H	N
ÁTOMO	2806	CA	VAL	H	150	-2.239	12.617	32.336	1.00	48.36	H	C
ÁTOMO	2807	C	VAL	H	150	-1.769	13.975	31.976	1.00	51.53	H	C
ÁTOMO	2808	O	VAL	H	150	-0.866	14.111	31.166	1.00	49.48	H	O
ÁTOMO	2809	CB	VAL	H	150	-1.528	12.172	33.638	1.00	46.55	H	C
ÁTOMO	2810	CG1	VAL	H	150	-2.023	10.810	34.129	1.00	52.35	H	C
ÁTOMO	2811	CG2	VAL	H	150	-0.022	12.133	33.442	1.00	45.34	H	C
ÁTOMO	2812	N	THR	H	151	-2.457	14.985	32.493	1.00	53.87	H	N
ÁTOMO	2813	CA	THR	H	151	-2.050	16.343	32.179	1.00	52.79	H	C
ÁTOMO	2814	C	THR	H	151	-1.853	17.094	33.467	1.00	53.87	H	C
ÁTOMO	2815	O	THR	H	151	-2.467	16.801	34.480	1.00	58.71	H	O
ÁTOMO	2816	CB	THR	H	151	-3.167	17.041	31.389	1.00	49.68	H	C
ÁTOMO	2817	OG1	THR	H	151	-4.169	17.497	32.300	1.00	68.43	H	O
ÁTOMO	2818	CG2	THR	H	151	-3.814	16.082	30.390	1.00	50.57	H	C
ÁTOMO	2819	N	VAL	H	152	-0.916	18.052	33.417	1.00	54.84	H	N
ÁTOMO	2820	CA	VAL	H	152	-0.653	18.890	34.576	1.00	52.95	H	C
ÁTOMO	2821	C	VAL	H	152	-0.556	20.338	34.132	1.00	52.63	H	C
ÁTOMO	2822	O	VAL	H	152	0.044	20.670	33.121	1.00	50.48	H	O

ÁTOMO	2823	CB	VAL H	152	0.672	18.465	35.236	1.00	51.86	H	C
ÁTOMO	2824	CG1	VAL H	152	0.613	17.013	35.714	1.00	46.34	H	C
ÁTOMO	2825	CG2	VAL H	152	1.840	18.631	34.275	1.00	53.57	H	C
ÁTOMO	2826	N	THR H	153	-1.249.	21.203	34.887	1.00	53.77	H	N
ÁTOMO	2827	CA	THR H	153	-1.215	22.630	34.594	1.00	56.85	H	C
ÁTOMO	2828	C	THR H	153	-0.947	23.377	35.880	1.00	59.60	H	C
ÁTOMO	2829	O	THR H	153	-1.146	22.862	36.971	1.00	60.71	H	O
ÁTOMO	2830	CB	THR H	153	-2.589	23.061	34.048	1.00	58.09	H	C
ÁTOMO	2831	OG1	THR H	153	-3.610	22.721	34.987	1.00	63.79	H	O
ÁTOMO	2832	CG2	THR H	153	-2.889	22.371	32.711	1.00	53.38	H	C
ÁTOMO	2833	N	TRP H	154	-0.428	24.607	35.743	1.00	58.56	H	N
ÁTOMO	2834	CA	TRP H	154	-0.160	25.388	36.943	1.00	59.00	H	C
ÁTOMO	2835	C	TRP H	154	-1.058	26.617	36.985	1.00	65.51	H	C
ÁTOMO	2836	O	TRP H	154	-1.090	27.437	36.077	1.00	68.44	H	O
ÁTOMO	2837	CB	TRP H	154	1.310	25.839	36.936	1.00	58.83	H	C
ÁTOMO	2838	CG	TRP H	154	2.220	24.700	37.226	1.00	63.23	H	C
ÁTOMO	2839	CD1	TRP H	154	2.867	23.892	36.276	1.00	63.79	H	C
ÁTOMO	2840	CD2	TRP H	154	2.606	24.185	38.526	1.00	55.01	H	C
ÁTOMO	2841	NE1	TRP H	154	3.610	22.909	36.827	1.00	52.78	H	N
ÁTOMO	2842	CE2	TRP H	154	3.457	23.068	38.283	1.00	53.67	H	C
ÁTOMO	2843	CE3	TRP H	154	2.315	24.533	39.802	1.00	48.82	H	C
ÁTOMO	2844	CZ2	TRP H	154	3.988	22.352	39.320	1.00	47.95	H	C
ÁTOMO	2845	CZ3	TRP H	154	2.848	23.811	40.856	1.00	41.43	H	C
ÁTOMO	2846	CH2	TRP H	154	3.692	22.703	40.610	1.00	46.15	H	C
ÁTOMO	2847	N	ASN H	155	-1.843	26.698	38.075	1.00	67.18	H	N
ÁTOMO	2848	CA	ASN H	155	-2.816	27.773	38.189	1.00	70.56	H	C
ÁTOMO	2849	C	ASN H	155	-3.788	27.780	37.006	1.00	69.10	H	C
ÁTOMO	2850	O	ASN H	155	-4.096	28.808	36.419	1.00	71.27	H	O
ÁTOMO	2851	CB	ASN H	155	-2.065	29.103	38.255	1.00	70.76	H	C
ÁTOMO	2852	CG	ASN H	155	-1.537	29.314	39.652	1.00	70.08	H	C
ÁTOMO	2853	OD1	ASN H	155	-2.077	28.814	40.634	1.00	71.53	H	O
ÁTOMO	2854	ND2	ASN H	155	-0.448	30.098	39.732	1.00	64.39	H	N
ÁTOMO	2855	N	SER H	156	-4.242	26.570	36.631	1.00	71.92	H	N
ÁTOMO	2856	CA	SER H	156	-5.245	26.483	35.576	1.00	71.41	H	C
ÁTOMO	2857	C	SER H	156	-4.670	26.875	34.212	1.00	71.15	H	C
ÁTOMO	2858	O	SER H	156	-5.371	26.975	33.212	1.00	74.08	H	O
ÁTOMO	2859	CB	SER H	156	-6.398	27.417	35.949	1.00	74.57	H	C
ÁTOMO	2860	OG	SER H	156	-6.915	27.040	37.226	1.00	75.73	H	O
ÁTOMO	2861	N	GLY H	157	-3.349	27.138	34.201	1.00	69.68	H	N
ÁTOMO	2862	CA	GLY H	157	-2.698	27.495	32.944	1.00	67.44	H	C
ÁTOMO	2863	C	GLY H	157	-2.203	28.945	32.952	1.00	70.86	H	C
ÁTOMO	2864	O	GLY H	157	-1.597	29.433	32.006	1.00	67.86	H	O
ÁTOMO	2865	N	SER H	158	-2.527	29.647	34.058	1.00	74.60	H	N
ÁTOMO	2866	CA	SER H	158	-2.075	31.029	34.216	1.00	82.23	H	C
ÁTOMO	2867	C	SER H	158	-0.548	31.120	34.273	1.00	82.78	H	C
ÁTOMO	2868	O	SER H	158	0.060	32.135	33.958	1.00	85.81	H	O
ÁTOMO	2869	CB	SER H	158	-2.678	31.578	35.513	1.00	83.01	H	C
ÁTOMO	2870	OG	SER H	158	-2.040	30.961	36.632	1.00	99.77	H	O
ÁTOMO	2871	N	LEU H	159	0.069	30.015	34.734	1.00	82.52	H	N
ÁTOMO	2872	CA	LEU H	159	1.525	29.954	34.677	1.00	82.36	H	C
ÁTOMO	2873	C	LEU H	159	2.021	29.704	33.252	1.00	86.99	H	C
ÁTOMO	2874	O	LEU H	159	2.025	28.590	32.747	1.00	79.57	H	O
ÁTOMO	2875	CB	LEU H	159	1.993	28.822	35.593	1.00	81.28	H	C
ÁTOMO	2876	CG	LEU H	159	1.795	29.147	37.075	1.00	79.39	H	C
ÁTOMO	2877	CD1	LEU H	159	2.518	28.155	37.989	1.00	93.68	H	C
ÁTOMO	2878	CD2	LEU H	159	2.313	30.535	37.455	1.00	62.45	H	C
ÁTOMO	2879	N	SER H	160	2.414	30.808	32.585	1.00	93.62	H	N
ÁTOMO	2880	CA	SER H	160	2.816	30.704	31.185	1.00	96.23	H	C
ÁTOMO	2881	C	SER H	160	3.963	29.706	31.006	1.00	92.96	H	C
ÁTOMO	2882	O	SER H	160	3.782	28.495	30.993	1.00	88.20	H	O
ÁTOMO	2883	CB	SER H	160	3.255	32.089	30.707	1.00	102.14	H	C

ÁTOMO	2884	OG	SER	H	160	3.409	32.948	31.837	1.00	98.22	H	O
ÁTOMO	2885	N	SER	H	161	5.176	30.264	30.814	1.00	89.77	H	N
ÁTOMO	2886	CA	SER	H	161	6.356	29.411	30.734	1.00	86.56	H	C
ÁTOMO	2887	C	SER	H	161	7.054	29.317	32.093	1.00	77.91	H	C
ÁTOMO	2888	O	SER	H	161	6.634	29.900	33.083	1.00	71.05	H	O
ÁTOMO	2889	CB	SER	H	161	7.309	30.008	29.700	1.00	92.32	H	C
ÁTOMO	2890	OG	SER	H	161	7.193	29.283	28.475	1.00	99.76	H	O
ÁTOMO	2891	N	GLY	H	162	8.133	28.513	32.130	1.00	69.90	H	N
ÁTOMO	2892	CA	GLY	H	162	8.873	28.369	33.379	1.00	63.56	H	C
ÁTOMO	2893	C	GLY	H	162	8.509	27.071	34.104	1.00	59.46	H	C
ÁTOMO	2894	O	GLY	H	162	9.024	26.747	35.165	1.00	61.58	H	O
ÁTOMO	2895	N	VAL	H	163	7.550	26.337	33.511	1.00	56.46	H	N
ÁTOMO	2896	CA	VAL	H	163	7.159	25.060	34.093	1.00	51.91	H	C
ÁTOMO	2897	C	VAL	H	163	7.695	23.886	33.267	1.00	46.10	H	C
ÁTOMO	2898	O	VAL	H	163	7.597	23.847	32.048	1.00	54.99	H	O
ÁTOMO	2899	CB	VAL	H	163	5.632	25.007	34.142	1.00	56.36	H	C
ÁTOMO	2900	CG1	VAL	H	163	5.049	26.077	33.222	1.00	41.84	H	C
ÁTOMO	2901	CG2	VAL	H	163	5.145	23.641	33.693	1.00	37.01	H	C
ÁTOMO	2902	N	HIS	H	164	8.321	22.926	33.973	1.00	38.73	H	N
ÁTOMO	2903	CA	HIS	H	164	8.861	21.764	33.277	1.00	38.20	H	C
ÁTOMO	2904	C	HIS	H	164	8.049	20.502	33.578	1.00	39.02	H	C
ÁTOMO	2905	O	HIS	H	164	7.976	20.032	34.706	1.00	45.91	H	O
ÁTOMO	2906	CB	HIS	H	164	10.313	21.577	33.717	1.00	47.41	H	C
ÁTOMO	2907	CG	HIS	H	164	11.186	22.595	33.029	1.00	50.39	H	C
ÁTOMO	2908	ND1	HIS	H	164	11.185	22.791	31.687	1.00	44.32	H	N
ÁTOMO	2909	CD2	HIS	H	164	12.121	23.462	33.604	1.00	55.52	H	C
ÁTOMO	2910	CE1	HIS	H	164	12.100	23.754	31.461	1.00	48.81	H	C
ÁTOMO	2911	NE2	HIS	H	164	12.675	24.174	32.590	1.00	54.09	H	N
ÁTOMO	2912	N	THR	H	165	7.370	19.928	32.580	1.00	38.94	H	N
ÁTOMO	2913	CA	THR	H	165	6.670	18.686	32.816	1.00	34.58	H	C
ÁTOMO	2914	C	THR	H	165	7.399	17.560	32.128	1.00	34.70	H	C
ÁTOMO	2915	O	THR	H	165	7.479	17.480	30.909	1.00	36.98	H	O
ÁTOMO	2916	CB	THR	H	165	5.254	18.805	32.243	1.00	29.54	H	C
ÁTOMO	2917	OG1	THR	H	165	4.542	19.815	32.962	1.00	26.80	H	O
ÁTOMO	2918	CG2	THR	H	165	4.511	17.466	32.408	1.00	30.37	H	C
ÁTOMO	2919	N	PHE	H	166	8.006	16.715	32.970	1.00	33.46	H	N
ÁTOMO	2920	CA	PHE	H	166	8.843	15.652	32.438	1.00	30.02	H	C
ÁTOMO	2921	C	PHE	H	166	8.045	14.422	32.045	1.00	34.42	H	C
ÁTOMO	2922	O	PHE	H	166	7.017	14.068	32.608	1.00	40.79	H	O
ÁTOMO	2923	CB	PHE	H	166	9.859	15.259	33.516	1.00	30.92	H	C
ÁTOMO	2924	CG	PHE	H	166	10.715	16.432	33.877	1.00	23.83	H	C
ÁTOMO	2925	CD1	PHE	H	166	11.915	16.636	33.210	1.00	29.02	H	C
ÁTOMO	2926	CD2	PHE	H	166	10.295	17.316	34.855	1.00	31.79	H	C
ÁTOMO	2927	CE1	PHE	H	166	12.682	17.749	33.512	1.00	31.45	H	C
ÁTOMO	2928	CE2	PHE	H	166	11.072	18.429	35.148	1.00	24.79	H	C
ÁTOMO	2929	CZ	PHE	H	166	12.266	18.654	34.478	1.00	30.14	H	C
ÁTOMO	2930	N	PRO	H	167	8.539	13.777	31.009	1.00	39.29	H	N
ÁTOMO	2931	CA	PRO	H	167	7.977	12.558	30.445	1.00	42.13	H	C
ÁTOMO	2932	C	PRO	H	167	7.936	11.450	31.506	1.00	47.73	H	C
ÁTOMO	2933	O	PRO	H	167	8.821	11.347	32.335	1.00	56.66	H	O
ÁTOMO	2934	CB	PRO	H	167	8.910	12.175	29.309	1.00	45.03	H	C
ÁTOMO	2935	CG	PRO	H	167	9.508	13.500	28.826	1.00	46.59	H	C
ÁTOMO	2936	CD	PRO	H	167	9.720	14.174	30.268	1.00	34.51	H	C
ÁTOMO	2937	N	ALA	H	168	6.837	10.656	31.518	1.00	45.33	H	N
ÁTOMO	2938	CA	ALA	H	168	6.700	9.658	32.569	1.00	42.85	H	C
ÁTOMO	2939	C	ALA	H	168	7.589	8.447	32.291	1.00	42.34	H	C
ÁTOMO	2940	O	ALA	H	168	7.978	8.165	31.165	1.00	39.56	H	O
ÁTOMO	2941	CB'	ALA	H	168	5.236	9.220	32.623	1.00	37.42	H	C
ÁTOMO	2942	N	VAL	H	169	7.951	7.746	33.381	1.00	41.75	H	N

ÁTOMO	2943	CA	VAL	H	169	8.708	6.508	33.239	1.00	41.72	H	C
ÁTOMO	2944	CB	VAL	H	169	9.960	6.609	34.111	1.00	45.04	H	C
ÁTOMO	2945	CG1	VAL	H	169	10.743	5.299	34.055	1.00	58.27	H	C
ÁTOMO	2946	CG2	VAL	H	169	10.845	7.742	33.624	1.00	43.30	H	C
ÁTOMO	2947	O	VAL	H	169	7.107	5.322	34.609	1.00	47.89	H	O
ÁTOMO	2948	N	LEU	H	170	8.029	4.209	32.879	1.00	47.24	H	N
ÁTOMO	2949	CA	LEU	H	170	7.293	2.994	33.196	1.00	47.57	H	C
ÁTOMO	2950	C	LEU	H	170	8.099	2.072	34.110	1.00	50.54	H	C
ÁTOMO	2951	O	LEU	H	170	9.213	1.663	33.813	1.00	53.71	H	O
ÁTOMO	2952	CB	LEU	H	170	6.966	2.273	31.889	1.00	49.56	H	C
ÁTOMO	2953	CG	LEU	H	170	5.944	1.151	32.084	1.00	43.50	H	C
ÁTOMO	2954	CD1	LEU	H	170	4.717	1.614	32.875	1.00	47.61	H	C
ÁTOMO	2955	CD2	LEU	H	170	5.417	0.594	30.761	1.00	40.91	H	C
ÁTOMO	2956	N	GLU	H	171	7.509	1.787	35.285	1.00	55.65	H	N
ÁTOMO	2957	CA	GLU	H	171	8.159	0.876	36.217	1.00	68.14	H	C
ÁTOMO	2958	C	GLU	H	171	7.197	-0.226	36.666	1.00	67.74	H	C
ÁTOMO	2959	O	GLU	H	171	6.098	0.029	37.140	1.00	65.41	H	O
ÁTOMO	2960	CB	GLU	H	171	8.626	1.686	37.428	1.00	72.43	H	C
ÁTOMO	2961	CG	GLU	H	171	9.934	1.159	38.021	1.00	91.59	H	C
ÁTOMO	2962	CD	GLU	H	171	10.146	1.768	39.388	1.00	120.67	H	C
ÁTOMO	2963	OE1	GLU	H	171	11.228	1.613	39.940	1.00	130.29	H	O
ÁTOMO	2964	OE2	GLU	H	171	9.216	2.391	39.899	1.00	122.92	H	O
ÁTOMO	2965	N	SER	H	172	7.611	-1.486	36.449	1.00	72.50	H	N
ÁTOMO	2966	CA	SER	H	172	6.698	-2.576	36.764	1.00	78.89	H	C
ÁTOMO	2967	C	SER	H	172	5.564	-2.629	35.737	1.00	79.78	H	C
ÁTOMO	2968	O	SER	H	172	5.392	-3.582	34.986	1.00	87.21	H	O
ÁTOMO	2969	CB	SER	H	172	6.099	-2.293	38.141	1.00	79.72	H	C
ÁTOMO	2970	OG	SER	H	172	4.766	-1.804	37.968	1.00	80.07	H	O
ÁTOMO	2971	N	ASP	H	173	4.739	-1.563	35.781	1.00	74.99	H	N
ÁTOMO	2972	CA	ASP	H	173	3.654	-1.391	34.824	1.00	72.78	H	C
ÁTOMO	2973	C	ASP	H	173	2.866	-0.123	35.157	1.00	65.42	H	C
ÁTOMO	2974	O	ASP	H	173	1.678	0.008	34.893	1.00	59.35	H	O
ÁTOMO	2975	CB	ASP	H	173	2.748	-2.625	34.859	1.00	81.69	H	C
ÁTOMO	2976	CG	ASP	H	173	2.371	-3.008	33.430	1.00	97.36	H	C
ÁTOMO	2977	OD1	ASP	H	173	2.070	-2.099	32.654	1.00	108.23	H	O
ÁTOMO	2978	OD2	ASP	H	173	2.357	-4.193	33.120	1.00	106.64	H	O
ÁTOMO	2979	N	LEU	H	174	3.586	0.813	35.796	1.00	63.54	H	N
ÁTOMO	2980	CA	LEU	H	174	2.969	2.059	36.232	1.00	55.65	H	C
ÁTOMO	2981	C	LEU	H	174	3.798	3.286	35.812	1.00	51.40	H	C
ÁTOMO	2982	O	LEU	H	174	5.019	3.255	35.734	1.00	54.33	H	O
ÁTOMO	2983	CB	LEU	H	174	2.819	2.014	37.760	1.00	54.66	H	C
ÁTOMO	2984	CG	LEU	H	174	1.767	0.993	38.222	1.00	48.08	H	C
ÁTOMO	2985	CD1	LEU	H	174	1.941	0.589	39.689	1.00	53.16	H	C
ÁTOMO	2986	CD2	LEU	H	174	0.335	1.512	38.091	1.00	59.23	H	C
ÁTOMO	2987	N	TYR	H	175	3.150	4.419	35.548	1.00	43.17	H	N
ÁTOMO	2988	CA	TYR	H	175	3.870	5.631	35.150	1.00	41.68	H	C
ÁTOMO	2989	C	TYR	H	175	4.025	6.621	36.287	1.00	40.74	H	C
ÁTOMO	2990	O	TYR	H	175	3.233	6.637	37.226	1.00	36.93	H	O
ÁTOMO	2991	CB	TYR	H	175	3.156	6.354	33.997	1.00	47.72	H	C
ÁTOMO	2992	CG	TYR	H	175	3.166	5.631	32.667	1.00	53.98	H	C
ÁTOMO	2993	CD1	TYR	H	175	4.346	5.452	31.955	1.00	51.27	H	C
ÁTOMO	2994	CD2	TYR	H	175	1.992	5.105	32.137	1.00	47.22	H	C
ÁTOMO	2995	CE1	TYR	H	175	4.354	4.764	30.754	1.00	58.28	H	C
ÁTOMO	2996	CE2	TYR	H	175	1.992	4.418	30.948	1.00	54.50	H	C
ÁTOMO	2997	CZ	TYR	H	175	3.171	4.243	30.257	1.00	55.81	H	C
ÁTOMO	2998	OH	TYR	H	175	3.166	3.509	29.089	1.00	41.75	H	O
ÁTOMO	2999	N	THR	H	176	5.058	7.452	36.171	1.00	41.73	H	N
ÁTOMO	3000	CA	THR	H	176	5.362	8.499	37.139	1.00	38.73	H	C
ÁTOMO	3001	C	THR	H	176	5.921	9.671	36.350	1.00	41.82	H	C
ÁTOMO	3002	O	THR	H	176	6.933	9.528	35.645	1.00	36.33	H	O

ÁTOMO	3003	CB	THR H	176	6.468	8.094	38.131	1.00	41.02	H	C
ÁTOMO	3004	OG1	THR H	176	6.251	6.754	38.592	1.00	49.99	H	O
ÁTOMO	3005	CG2	THR H	176	6.480	9.045	39.310	1.00	36.35	H	C
ÁTOMO	3006	N	LEU H	177	5.268	10.82	36.439	1.00	38.99	H	N
ÁTOMO	3007	CA	LEU H	177	5.783	11.98	35.743	1.00	33.71	H	C
ÁTOMO	3008	C	LEU H	177	6.070	12.98	36.820	1.00	32.17	H	C
ÁTOMO	3009	O	LEU H	177	5.689	12.79	37.962	1.00	32.19	H	O
ÁTOMO	3010	CB	LEU H	177	4.779	12.5	34.729	1.00	30.29	H	C
ÁTOMO	3011	CG	LEU H	177	3.660	13.49	35.078	1.00	31.11	H	C
ÁTOMO	3012	CD1	LEU H	177	4.186	14.86	35.498	1.00	32.05	H	C
ÁTOMO	3013	CD2	LEU H	177	2.830	13.65	33.831	1.00	37.80	H	C
ÁTOMO	3014	N	SER H	178	6.751	14.06	36.463	1.00	37.29	H	N
ÁTOMO	3015	CA	SER H	178	7.105	15.06	37.440	1.00	36.26	H	C
ÁTOMO	3016	C	SER H	178	6.994	16.41	36.761	1.00	40.62	H	C
ÁTOMO	3017	O	SER H	178	7.258	16.53	35.562	1.00	37.73	H	O
ÁTOMO	3018	CB	SER H	178	8.534	14.83	37.906	1.00	33.83	H	C
ÁTOMO	3019	OG	SER H	178	8.654	15.14	39.273	1.00	53.70	H	O
ÁTOMO	3020	N	SER H	179	6.600	17.43	37.511	1.00	35.74	H	N
ÁTOMO	3021	CA	SER H	179	6.437	18.73	36.871	1.00	36.88	H	C
ÁTOMO	3022	C	SER H	179	6.953	19.86	37.767	1.00	39.97	H	C
ÁTOMO	3023	O	SER H	179	6.677	19.92	38.957	1.00	43.93	H	O
ÁTOMO	3024	CB	SER H	179	4.951	18.94	36.573	1.00	41.66	H	C
ÁTOMO	3025	OG	SER H	179	4.812	19.93	35.551	1.00	41.44	H	O
ÁTOMO	3026	N	SER H	180	7.770	20.74	37.161	1.00	44.77	H	N
ÁTOMO	3027	CA	SER H	180	8.376	21.80	37.942	1.00	47.17	H	C
ÁTOMO	3028	C	SER H	180	7.933	23.18	37.460	1.00	51.73	H	C
ÁTOMO	3029	O	SER H	180	7.776	23.45	36.275	1.00	56.63	H	O
ÁTOMO	3030	CB	SER H	180	9.893	21.67	37.813	1.00	46.70	H	C
ÁTOMO	3031	OG	SER H	180	10.300	22.19	36.544	1.00	39.66	H	O
ÁTOMO	3032	N	VAL H	181	7.692	24.08	38.438	1.00	54.79	H	N
ÁTOMO	3033	CA	VAL H	181	7.318	25.44	38.088	1.00	52.01	H	C
ÁTOMO	3034	C	VAL H	181	8.212	26.45	38.796	1.00	50.47	H	C
ÁTOMO	3035	O	VAL H	181	8.466	26.37	39.990	1.00	47.10	H	O
ÁTOMO	3036	CB	VAL H	181	5.862	25.66	38.501	1.00	50.38	H	C
ÁTOMO	3037	CG1	VAL H	181	5.748	25.67	40.024	1.00	47.12	H	C
ÁTOMO	3038	CG2	VAL H	181	5.365	26.98	37.951	1.00	39.28	H	C
ÁTOMO	3039	N	THR H	182	8.750	27.41	38.043	1.00	48.35	H	N
ÁTOMO	3040	CA	THR H	182	9.638	28.42	38.599	1.00	48.08	H	C
ÁTOMO	3041	C	THR H	182	8.954	29.78	38.586	1.00	51.63	H	C
ÁTOMO	3042	O	THR H	182	8.259	30.13	37.629	1.00	50.26	H	O
ÁTOMO	3043	CB	THR H	182	10.948	28.52	37.791	1.00	47.88	H	C
ÁTOMO	3044	OG1	THR H	182	11.621	27.26	37.831	1.00	51.81	H	O
ÁTOMO	3045	CG2	THR H	182	11.855	29.59	38.363	1.00	29.17	H	C
ÁTOMO	3046	N	VAL H	183	9.161	30.55	39.653	1.00	56.66	H	N
ÁTOMO	3047	CA	VAL H	183	8.566	31.88	39.791	1.00	57.17	H	C
ÁTOMO	3048	C	VAL H	183	9.449	32.75	40.650	1.00	59.90	H	C
ÁTOMO	3049	O	VAL H	183	10.231	32.25	41.454	1.00	59.55	H	O
ÁTOMO	3050	CB	VAL H	183	7.199	31.83	40.508	1.00	58.93	H	C
ÁTOMO	3051	CG1	VAL H	183	6.271	30.83	39.826	1.00	61.72	H	C
ÁTOMO	3052	CG2	VAL H	183	7.403	31.47	41.971	1.00	41.35	H	C
ÁTOMO	3053	N	PRO H	184	9.329	34.08	40.496	1.00	66.40	H	N
ÁTOMO	3054	CA	PRO H	184	10.142	34.99	41.300	1.00	66.49	H	C
ÁTOMO	3055	C	PRO H	184	9.825	34.72	42.765	1.00	67.25	H	C
ÁTOMO	3056	O	PRO H	184	8.738	34.24	43.093	1.00	66.00	H	O
ÁTOMO	3057	CB	PRO H	184	9.673	36.36	40.841	1.00	64.64	H	C
ÁTOMO	3058	CG	PRO H	184	9.314	36.13	39.408	1.00	71.49	H	C
ÁTOMO	3059	CD	PRO H	184	8.552	34.82	39.491	1.00	70.81	H	C
ÁTOMO	3060	N	SER H	185	10.779	35.01	43.640	1.00	66.78	H	N

ÁTOMO	3061	CA	SER	H	185	10.586	34.79	45.061	1.00	67.40	H	C
ÁTOMO	3062	C	SER	H	185	9.352	35.53	45.572	1.00	72.49	H	C
ÁTOMO	3063	O	SER	H	185	8.673	35.08	46.492	1.00	73.45	H	O
ÁTOMO	3064	CB	SER	H	185	11.827	35.24	45.817	1.00	66.63	H	C
ÁTOMO	3065	OG	SER	H	185	12.993	34.76	45.181	1.00	65.52	H	O
ÁTOMO	3066	N	SER	H	186	9.061	36.68	44.977	1.00	72.88	H	N
ÁTOMO	3067	CA	SER	H	186	7.904	37.46	45.399	1.00	76.17	H	C
ÁTOMO	3068	C	SER	H	186	6.633	36.61	45.310	1.00	78.37	H	C
ÁTOMO	3069	O	SER	H	186	6.016	36.31	46.336	1.00	80.30	H	O
ÁTOMO	3070	CB	SER	H	186	7.768	38.73	44.554	1.00	75.54	H	C
ÁTOMO	3071	OG	SER	H	186	8.710	38.75	43.495	1.00	64.86	H	O
ÁTOMO	3072	N	PRO	H	187	6.246	36.18	44.089	1.00	75.34	H	N
ÁTOMO	3073	CA	PRO	H	187	5.051	35.36	43.859	1.00	69.64	H	C
ÁTOMO	3074	C	PRO	H	187	4.756	34.32	44.928	1.00	66.91	H	C
ÁTOMO	3075	O	PRO	H	187	3.648	34.26	45.451	1.00	68.67	H	O
ÁTOMO	3076	CB	PRO	H	187	5.332	34.73	42.502	1.00	71.74	H	C
ÁTOMO	3077	CG	PRO	H	187	6.029	35.83	41.782	1.00	71.69	H	C
ÁTOMO	3078	CD	PRO	H	187	6.996	36.35	42.829	1.00	78.09	H	C
ÁTOMO	3079	N	ARG	H	188	5.745	33.49	45.251	1.00	65.41	H	N
ÁTOMO	3080	CA	ARG	H	188	5.568	32.44	46.255	1.00	66.06	H	C
ÁTOMO	3081	C	ARG	H	188	6.649	32.60	47.319	1.00	71.72	H	C
ÁTOMO	3082	O	ARG	H	188	7.776	32.98	47.017	1.00	73.68	H	O
ÁTOMO	3083	CB	ARG	H	188	5.680	31.07	45.583	1.00	63.16	H	C
ÁTOMO	3084	CG	ARG	H	188	4.610	30.05	45.956	1.00	47.34	H	C
ÁTOMO	3085	CD	ARG	H	188	4.956	29.29	47.212	1.00	42.91	H	C
ÁTOMO	3086	NE	ARG	H	188	6.371	28.94	47.242	1.00	58.37	H	N
ÁTOMO	3087	CZ	ARG	H	188	6.941	28.20	48.185	1.00	63.59	H	C
ÁTOMO	3088	NH1	ARG	H	188	6.221	27.71	49.188	1.00	58.02	H	N
ÁTOMO	3089	NH2	ARG	H	188	8.239	27.94	48.132	1.00	75.00	H	N
ÁTOMO	3090	N	PRO	H	189	6.324	32.29	48.581	1.00	73.56	H	N
ÁTOMO	3091	CA	PRO	H	189	5.021	31.81	49.055	1.00	76.25	H	C
ÁTOMO	3092	C	PRO	H	189	4.006	32.89	49.415	1.00	80.21	H	C
ÁTOMO	3093	O	PRO	H	189	3.307	32.77	50.421	1.00	86.41	H	O
ÁTOMO	3094	CB	PRO	H	189	5.400	30.96	50.263	1.00	76.00	H	C
ÁTOMO	3095	CG	PRO	H	189	6.524	31.75	50.848	1.00	75.53	H	C
ÁTOMO	3096	CD	PRO	H	189	7.346	32.14	49.633	1.00	74.81	H	C
ÁTOMO	3097	N	SER	H	190	3.915	33.94	48.603	1.00	80.77	H	N
ÁTOMO	3098	CA	SER	H	190	2.963	35.01	48.879	1.00	82.18	H	C
ÁTOMO	3099	C	SER	H	190	1.719	34.81	48.030	1.00	81.86	H	C
ÁTOMO	3100	O	SER	H	190	0.702	35.46	48.254	1.00	81.36	H	O
ÁTOMO	3101	CB	SER	H	190	3.578	36.37	48.571	1.00	83.27	H	C
ÁTOMO	3102	OG	SER	H	190	3.707	36.57	47.174	1.00	87.49	H	O
ÁTOMO	3103	N	GLU	H	191	1.811	33.92	47.052	1.00	81.18	H	N
ÁTOMO	3104	CA	GLU	H	191	0.694	33.64	46.162	1.00	80.63	H	C
ÁTOMO	3105	C	GLU	H	191	0.523	32.14	45.934	1.00	82.13	H	C
ÁTOMO	3106	O	GLU	H	191	1.465	31.44	45.558	1.00	80.46	H	O
ÁTOMO	3107	CB	GLU	H	191	0.903	34.33	44.820	1.00	81.67	H	C
ÁTOMO	3108	CG	GLU	H	191	0.887	35.84	44.879	1.00	78.66	H	C
ÁTOMO	3109	CD	GLU	H	191	1.138	36.46	43.518	1.00	84.10	H	C
ÁTOMO	3110	OE1	GLU	H	191	0.440	36.08	42.552	1.00	79.16	H	O
ÁTOMO	3111	OE2	GLU	H	191	2.028	37.33	43.417	1.00	84.64	H	O
ÁTOMO	3112	N	THR	H	192	-0.697	31.66	46.150	1.00	82.97	H	N
ÁTOMO	3113	CA	THR	H	192	-1.035	30.25	45.998	1.00	82.00	H	C
ÁTOMO	3114	C	THR	H	192	-0.683	29.60	44.663	1.00	80.53	H	C
ÁTOMO	3115	O	THR	H	192	-1.405	29.76	43.679	1.00	80.71	H	O
ÁTOMO	3116	CB	THR	H	192	-2.536	30.02	46.230	1.00	80.05	H	C
ÁTOMO	3117	OG1	THR	H	192	-2.869	30.37	47.577	1.00	88.12	H	O
ÁTOMO	3118	CG2	THR	H	192	-2.895	28.56	45.978	1.00	78.28	H	C
ÁTOMO	3119	N	VAL	H	193	0.426	28.87	44.636	1.00	75.98	H	N

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ÁTOMO	3120	CA	VAL H	193	0.836	28.165	43.432	1.00	68.25	H	C
ÁTOMO	3121	C	VAL H	193	0.149	26.807	43.529	1.00	65.36	H	C
ÁTOMO	3122	O	VAL H	193	0.328	26.087	44.509	1.00	64.64	H	O
ÁTOMO	3123	CB	VAL H	193	2.360	27.972	43.384	1.00	66.83	H	C
ÁTOMO	3124	CG1	VAL H	193	2.718	27.022	42.265	1.00	70.86	H	C
ÁTOMO	3125	CG2	VAL H	193	3.046	29.313	43.170	1.00	66.13	H	C
ÁTOMO	3126	N	THR H	194	-0.644	26.455	42.525	1.00	64.29	H	N
ÁTOMO	3127	CA	THR H	194	-1.364	25.190	42.575	1.00	65.18	H	C
ÁTOMO	3128	C	THR H	194	-1.173	24.250	41.390	1.00	63.54	H	C
ÁTOMO	3129	O	THR H	194	-1.145	24.670	40.237	1.00	64.27	H	O
ÁTOMO	3130	CB	THR H	194	-2.869	25.437	42.752	1.00	65.84	H	C
ÁTOMO	3131	OG1	THR H	194	-3.085	26.186	43.952	1.00	67.51	H	O
ÁTOMO	3132	CG2	THR H	194	-3.622	24.110	42.825	1.00	67.60	H	C
ÁTOMO	3133	N	CYS H	195	-1.068	22.964	41.702	1.00	60.79	H	N
ÁTOMO	3134	CA	CYS H	195	-0.878	21.930	40.699	1.00	61.12	H	C
ÁTOMO	3135	C	CYS H	195	-2.215	21.268	40.365	1.00	57.72	H	C
ÁTOMO	3136	O	CYS H	195	-2.912	20.771	41.248	1.00	56.12	H	O
ÁTOMO	3137	CB	CYS H	195	0.124	20.891	41.222	1.00	60.88	H	C
ÁTOMO	3138	SG	CYS H	195	0.445	19.499	40.098	1.00	74.47	H	S
ÁTOMO	3139	N	ASN H	196	-2.559	21.265	39.081	1.00	52.67	H	N
ÁTOMO	3140	CA	ASN H	196	-3.807	20.682	38.606	1.00	53.59	H	C
ÁTOMO	3141	C	ASN H	196	-3.467	19.433	37.787	1.00	52.35	H	C
ÁTOMO	3142	O	ASN H	196	-2.757	19.523	36.785	1.00	51.73	H	O
ÁTOMO	3143	CB	ASN H	196	-4.535	21.701	37.728	1.00	59.81	H	C
ÁTOMO	3144	CG	ASN H	196	-4.395	23.130	38.247	1.00	62.00	H	C
ÁTOMO	3145	OD1	ASN H	196	-4.161	24.061	37.472	1.00	67.81	H	O
ÁTOMO	3146	ND2	ASN H	196	-4.541	23.310	39.556	1.00	65.11	H	N
ÁTOMO	3147	N	VAL H	197	-3.982	18.276	38.199	1.00	49.58	H	N
ÁTOMO	3148	CA	VAL H	197	-3.689	17.016	37.512	1.00	46.57	H	C
ÁTOMO	3149	C	VAL H	197	-4.930	16.190	37.159	1.00	48.56	H	C
ÁTOMO	3150	O	VAL H	197	-5.888	16.135	37.925	1.00	53.48	H	O
ÁTOMO	3151	CB	VAL H	197	-2.750	16.143	38.381	1.00	44.48	H	C
ÁTOMO	3152	CG1	VAL H	197	-2.412	14.851	37.666	1.00	39.07	H	C
ÁTOMO	3153	CG2	VAL H	197	-1.495	16.923	38.718	1.00	37.49	H	C
ÁTOMO	3154	N	ALA H	198	-4.897	15.532	36.002	1.00	49.52	H	N
ÁTOMO	3155	CA	ALA H	198	-6.021	14.717	35.551	1.00	48.53	H	C
ÁTOMO	3156	C	ALA H	198	-5.610	13.434	34.832	1.00	51.07	H	C
ÁTOMO	3157	O	ALA H	198	-4.711	13.441	33.993	1.00	55.91	H	O
ÁTOMO	3158	CB	ALA H	198	-6.910	15.543	34.643	1.00	48.57	H	C
ÁTOMO	3159	N	HIS H	199	-6.281	12.336	35.174	1.00	54.83	H	N
ÁTOMO	3160	CA	HIS H	199	-6.037	11.031	34.561	1.00	51.27	H	C
ÁTOMO	3161	C	HIS H	199	-7.384	10.385	34.250	1.00	51.92	H	C
ÁTOMO	3162	O	HIS H	199	-7.882	9.555	35.002	1.00	46.18	H	O
ÁTOMO	3163	CB	HIS H	199	-5.218	10.138	35.496	1.00	47.91	H	C
ÁTOMO	3164	CG	HIS H	199	-5.003	8.745	34.982	1.00	42.99	H	C
ÁTOMO	3165	ND1	HIS H	199	-5.849	7.699	35.281	1.00	52.90	H	N
ÁTOMO	3166	CD2	HIS H	199	-4.026	8.221	34.203	1.00	52.68	H	C
ÁTOMO	3167	CE1	HIS H	199	-5.403	6.593	34.713	1.00	50.68	H	C
ÁTOMO	3168	NE2	HIS H	199	-4.297	6.882	34.053	1.00	47.65	H	N
ÁTOMO	3169	N	PRO H	200	-7.989	10.778	33.120	1.00	58.59	H	N
ÁTOMO	3170	CA	PRO H	200	-9.277	10.323	32.593	1.00	60.75	H	C
ÁTOMO	3171	C	PRO H	200	-9.504	8.822	32.689	1.00	60.27	H	C
ÁTOMO	3172	O	PRO H	200	-10.551	8.376	33.152	1.00	64.21	H	O
ÁTOMO	3173	CB	PRO H	200	-9.236	10.800	31.146	1.00	61.93	H	C
ÁTOMO	3174	CG	PRO H	200	-8.483	12.082	31.255	1.00	60.39	H	C
ÁTOMO	3175	CD	PRO H	200	-7.342	11.699	32.167	1.00	60.10	H	C
ÁTOMO	3176	N	ALA H	201	-8.523	8.047	32.244	1.00	57.28	H	N

ÁTOMO	3177	CA	ALA H	201	-8.632	6.600	32.269	1.00	57.95	H	C	
ÁTOMO	3178	C	ALA H	201	-9.267	6.127	33.578	1.00	64.27	H	C	
ÁTOMO	3179	O	ALA H	201	-9.869	5.054	33.641	1.00	67.28	H	O	
ÁTOMO	3180	CB	ALA H	201	-7.263	5.979	32.079	1.00	53.21	H	C	
ÁTOMO	3181	N	SER H	202	-9.135	6.936	34.620	1.00	64.03	H	N	
ÁTOMO	3182	CA	SER H	202	-9.708	6.603	35.912	1.00	67.56	H	C	
ÁTOMO	3183	C	SER H	202	-10.529	7.790	36.400	1.00	71.63	H	C	
ÁTOMO	3184	O	SER H	202	-11.048	7.783	37.516	1.00	75.10	H	O	
ÁTOMO	3185	CB	SER H	202	-8.602	6.301	36.919	1.00	68.02	H	C	
ÁTOMO	3186	OG	SER H	202	-7.878	7.475	37.234	1.00	60.70	H	O	
ÁTOMO	3187	N	SER H	203	-10.639	8.809	35.552	1.00	73.88	H	N	
ÁTOMO	3188	CA	SER H	203	-11.383	10.014	35.887	1.00	75.67	H	C	
ÁTOMO	3189	C	SER H	203	-10.951	10.512	37.253	1.00	70.02	H	C	
ÁTOMO	3190	O	SER H	203	-11.738	10.537	38.190	1.00	70.12	H	O	
ÁTOMO	3191	CB	SER H	203	-12.888	9.732	35.888	1.00	81.76	H	C	
ÁTOMO	3192	OG	SER H	203	-13.367	9.502	34.571	1.00	92.44	H	O	
ÁTOMO	3193	N	THR H	204	-9.690	10.908	37.353	1.00	69.13	H	N	
ÁTOMO	3194	CA	THR H	204	-9.129	11.395	38.602	1.00	68.07	H	C	
ÁTOMO	3195	C	THR H	204	-8.638	12.825	38.462	1.00	69.60	H	C	
ÁTOMO	3196	O	THR H	204	-7.549	13.069	37.955	1.00	75.93	H	O	
ÁTOMO	3197	CB	THR H	204	-7.941	10.523	39.038	1.00	67.90	H	C	
ÁTOMO	3198	OG1	THR H	204	-8.377	9.169	39.197	1.00	69.69	H	O	
ÁTOMO	3199	CG2	THR H	204	-7.367	11.021	40.346	1.00	68.98	H	C	
ÁTOMO	3200	N	LYS H	205	-9.444	13.779	38.899	1.00	71.84	H	N	
ÁTOMO	3201	CA	LYS H	205	-9.041	15.171	38.824	1.00	72.92	H	C	
ÁTOMO	3202	C	LYS H	205	-8.508	15.512	40.206	1.00	70.26	H	C	
ÁTOMO	3203	O	LYS H	205	-9.036	15.027	41.200	1.00	70.61	H	O	
ÁTOMO	3204	CB	LYS H	205	-10.240	16.055	38.479	1.00	76.81	H	C	
ÁTOMO	3205	CG	LYS H	205	-9.928	17.541	38.480	1.00	93.84	H	C	
ÁTOMO	3206	CD	LYS H	205	-11.159	18.374	38.140	1.00	119.23	H	C	
ÁTOMO	3207	CE	LYS H	205	-10.866	19.875	38.218	1.00	127.13	H	C	
ÁTOMO	3208	NZ	LYS H	205	-10.500	20.334	39.593	1.00	118.10	H	N	
ÁTOMO	3209	N	VAL H	206	-7.455	16.323	40.273	1.00	71.24	H	N	
ÁTOMO	3210	CA	VAL H	206	-6.865	16.710	41.554	1.00	65.47	H	C	
ÁTOMO	3211	C	VAL H	206	-6.097	18.015	41.458	1.00	66.88	H	C	
ÁTOMO	3212	O	VAL H	206	-5.419	18.270	40.464	1.00	63.59	H	O	
ÁTOMO	3213	CB	VAL H	206	-5.879	15.648	42.080	1.00	60.18	H	C	
ÁTOMO	3214	CG1	VAL H	206	-5.211	16.151	43.341	1.00	59.04	H	C	
ÁTOMO	3215	CG2	VAL H	206	-6.595	14.354	42.363	1.00	58.52	H	C	
ÁTOMO	3216	N	ASP H	207	-6.211	18.835	42.502	1.00	70.84	H	N	
ÁTOMO	3217	CA	ASP H	207	-5.512	20.119	42.581	1.00	72.83	H	C	
ÁTOMO	3218	C	ASP H	207	-4.636	20.118	43.832	1.00	72.60	H	C	
ÁTOMO	3219	O	ASP H	207	-5.119	19.821	44.927	1.00	75.84	H	O	
ÁTOMO	3220	CB	ASP H	207	-6.511	21.278	42.659	1.00	71.33	H	C	
ÁTOMO	3221	CG	ASP H	207	-7.287	21.477	41.364	1.00	77.68	H	C	
ÁTOMO	3222	OD1	ASP H	207	-6.681	21.899	40.354	1.00	80.92	H	O	
ÁTOMO	3223	OD2	ASP H	207	-8.508	21.207	41.352	1.00	90.49	H	O	
ÁTOMO	3224	N	LYS H	208	-3.353	20.439	43.672	1.00	71.66	H	N	
ÁTOMO	3225	CA	LYS H	208	-2.431	20.471	44.805	1.00	67.72	H	C	
ÁTOMO	3226	C	LYS H	208	-1.774	21.829	45.029	1.00	67.29	H	C	
ÁTOMO	3227	O	LYS H	208	-1.123	22.387	44.143	1.00	60.51	H	O	
ÁTOMO	3228	CB	LYS H	208	-1.348	19.408	44.645	1.00	61.97	H	C	
ÁTOMO	3229	CG	LYS H	208	-1.885	18.004	44.650	1.00	70.11	H	C	
ÁTOMO	3230	CD	LYS H	208	-2.596	17.706	45.952	1.00	79.56	H	C	
ÁTOMO	3231	CE	LYS H	208	-1.633	17.728	47.136	1.00	79.20	H	C	
ÁTOMO	3232	NZ	LYS H	208	-2.313	17.296	48.397	1.00	74.65	H	N	
ÁTOMO	3233	N	LYS H	209	-1.959	22.348	46.235	1.00	68.04	H	N	
ÁTOMO	3234	CA	LYS H	209	-1.396	23.624	46.632	1.00	68.05	H	C	
ÁTOMO	3235	C	LYS H	209	-0.056	23.336	47.309	1.00	68.52	H	C	

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ÁTOMO	3236	O	LYS	H	209	0.067	22.404	48.111	1.00	68.41	H	O
ÁTOMO	3237	CB	LYS	H	209	-2.364	24.326	47.594	1.00	69.90	H	C
ÁTOMO	3238	CG	LYS	H	209	-1.838	25.586	48.257	1.00	66.76	H	C
ÁTOMO	3239	CD	LYS	H	209	-2.792	26.024	49.348	1.00	78.35	H	C
ÁTOMO	3240	CE	LYS	H	209	-2.194	27.115	50.220	1.00	94.10	H	C
ÁTOMO	3241	NZ	LYS	H	209	-3.031	27.382	51.432	1.00	96.38	H	N
ÁTOMO	3242	N	ILE	H	210	0.948	24.135	46.975	1.00	69.42	H	N
ÁTOMO	3243	CA	ILE	H	210	2.323	23.907	47.378	1.00	69.31	H	C
ÁTOMO	3244	C	ILE	H	210	2.654	24.760	48.593	1.00	73.85	H	C
ÁTOMO	3245	O	ILE	H	210	2.905	25.965	48.538	1.00	72.23	H	O
ÁTOMO	3246	CB	ILE	H	210	3.289	24.189	46.204	1.00	63.42	H	C
ÁTOMO	3247	CG1	ILE	H	210	2.763	23.606	44.883	1.00	55.85	H	C
ÁTOMO	3248	CG2	ILE	H	210	4.654	23.519	46.467	1.00	53.59	H	C
ÁTOMO	3249	CD1	ILE	H	210	2.724	22.077	44.880	1.00	42.80	H	C
TER	3250		ILE	H	210				1.00			
ÁTOMO	3251	S	S04	Z	1	-12.465	8.279	-5.420	1.00	139.70	Z	S
ÁTOMO	3252	O5	S04	Z	1	-11.496	7.532	-4.640	1.00	128.34	Z	O
ÁTOMO	3253	O2	S04	Z	1	-13.354	9.016	-4.584	1.00	133.20	Z	O
ÁTOMO	3254	O3	S04	Z	1	-11.721	8.960	-6.420	1.00	143.54	Z	O
ÁTOMO	3255	O4	S04	Z	1	-13.284	7.173	-6.136	1.00	137.69	Z	O
TER	3256		S04	Z	1				1.00			
ÁTOMO	3257	O	HOH		1	6.642	26.255	11.504	1.00	44.22	W	O
ÁTOMO	3258	O	HOH		2	28.229	27.688	14.335	1.00	47.65	W	O
ÁTOMO	3259	O	HOH		3	4.085	20.721	15.240	1.00	46.98	W	O
ÁTOMO	3260	O	HOH		4	-2.722	25.529	5.319	1.00	43.81	W	O
ÁTOMO	3261	O	HOH		5	-0.482	15.335	20.340	1.00	56.36	W	O
ÁTOMO	3262	O	HOH		6	-9.832	15.976	-2.164	1.00	56.06	W	O
ÁTOMO	3263	O	HOH		7	-1.203	25.888	-0.428	1.00	50.40	W	O
ÁTOMO	3264	O	HOH		8	-10.065	13.544	33.937	1.00	59.05	W	O
ÁTOMO	3265	O	HOH		9	-4.782	15.152	-5.651	1.00	58.18	W	O
ÁTOMO	3266	O	HOH		10	-3.602	22.705	2.193	1.00	48.13	W	O
ÁTOMO	3267	O	HOH		11	-11.748	12.731	-2.744	1.00	46.32	W	O
ÁTOMO	3268	O	HOH		12	12.028	16.121	18.701	1.00	41.71	W	O
ÁTOMO	3269	O	HOH		13	3.379	-3.325	0.685	1.00	44.58	W	O
ÁTOMO	3270	O	HOH		14	17.930	21.064	55.610	1.00	32.59	W	O
ÁTOMO	3271	O	HOH		15	-0.999	21.444	1.050	1.00	39.37	W	O
ÁTOMO	3272	O	HOH		16	-7.188	20.691	15.900	1.00	58.62	W	O
ÁTOMO	3273	O	HOH		17	11.612	6.022	14.835	1.00	63.80	W	O
ÁTOMO	3274	O	HOH		18	-21.984	9.843	5.129	1.00	40.92	W	O
ÁTOMO	3275	O	HOH		19	-13.113	-7.726	18.949	1.00	55.85	W	O
ÁTOMO	3276	O	HOH		20	11.899	30.835	17.167	1.00	51.40	W	O
ÁTOMO	3277	O	HOH		21	5.068	4.550	7.254	1.00	66.68	W	O
ÁTOMO	3278	O	HOH		22	10.249	11.292	38.205	1.00	65.97	W	O
ÁTOMO	3279	O	HOH		23	8.242	27.276	13.281	1.00	40.53	W	O
ÁTOMO	3280	O	HOH		24	27.126	25.654	13.317	1.00	36.28	W	O
ÁTOMO	3281	O	HOH		25	-2.011	21.099	11.221	1.00	36.94	W	O
ÁTOMO	3282	O	HOH		26	4.152	14.440	20.408	1.00	44.38	W	O
ÁTOMO	3283	O	HOH		27	3.465	8.412	20.717	1.00	36.27	W	O
ÁTOMO	3284	O	HOH		28	-3.739	26.158	-0.964	1.00	59.49	W	O
ÁTOMO	3285	O	HOH		29	8.758	15.447	18.540	1.00	58.26	W	O
ÁTOMO	3286	O	HOH		30	11.634	3.618	7.590	1.00	64.90	W	O
ÁTOMO	3287	O	HOH		31	9.169	11.593	35.533	1.00	53.91	W	O
ÁTOMO	3288	O	HOH		32	21.365	7.678	8.159	1.00	56.30	W	O
ÁTOMO	3289	O	HOH		33	1.667	26.705	-2.342	1.00	34.36	W	O
ÁTOMO	3290	O	HOH		34	-0.777	2.920	-5.893	1.00	54.04	W	O
ÁTOMO	3291	O	HOH		35	-1.979	6.414	-4.690	1.00	86.59	W	O
ÁTOMO	3292	O	HOH		36	6.580	2.378	7.003	1.00	56.10	W	O
ÁTOMO	3293	O	HOH		37	8.782	3.265	5.256	1.00	35.26	W	O
ÁTOMO	3294	O	HOH		38	16.061	8.450	10.733	1.00	59.25	W	O

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ÁTOMO	3295	O	HOH W	39	29.645	4.189	52.482	1.00	54.67	W	O
ÁTOMO	3296	O	HOH W	40	20.575	4.765	61.334	1.00	68.62	W	O
ÁTOMO	3297	O	HOH W	41	-22.962	11.039	19.094	1.00	73.88	W	O
ÁTOMO	3298	O	HOH W	42	-21.174	11.687	21.368	1.00	72.77	W	O
ÁTOMO	3299	O	HOH W	43	-18.934	22.014	5.912	1.00	60.22	W	O
ÁTOMO	3300	O	HOH W	44	10.166	1.139	9.698	1.00	47.40	W	O
ÁTOMO	3301	O	HOH W	45	-16.050	3.113	11.263	1.00	37.96	W	O
ÁTOMO	3302	O	HOH W	46	16.088	23.610	39.697	1.00	46.51	W	O
ÁTOMO	3303	O	HOH W	47	2.897	30.138	2.027	1.00	61.24	W	O
ÁTOMO	3304	O	HOH W	48	24.057	1.224	45.686	1.00	48.96	W	O
ÁTOMO	3305	O	HOH W	49	23.165	21.916	7.479	1.00	66.86	W	O
ÁTOMO	3306	O	HOH W	50	-11.702	14.692	23.074	1.00	50.02	W	O
ÁTOMO	3307	O	HOH W	51	-12.219	-0.922	1.076	1.00	43.82	W	O
ÁTOMO	3308	O	HOH W	52	12.391	12.245	37.897	1.00	49.94	W	O
ÁTOMO	3309	O	HOH W	53	4.767	11.266	29.449	1.00	43.95	W	O
ÁTOMO	3310	O	HOH W	54	-3.099	21.164	48.329	1.00	58.57	W	O
ÁTOMO	3311	O	HOH W	55	12.781	10.766	29.425	1.00	53.41	W	O
ÁTOMO	3312	O	HOH W	56	14.923	28.548	3.207	1.00	58.18	W	O
ÁTOMO	3313	O	HOH W	57	16.115	16.431	-9.571	1.00	69.88	W	O
ÁTOMO	3314	O	HOH W	58	21.324	3.649	64.100	1.00	72.27	W	O
ÁTOMO	3315	O	HOH W	59	23.726	4.646	63.378	1.00	57.04	W	O
ÁTOMO	3316	O	HOH W	60	2.050	32.040	3.673	1.00	51.78	W	O
ÁTOMO	3317	O	HOH W	61	2.457	33.745	5.919	1.00	56.71	W	O
ÁTOMO	3318	O	HOH W	62	8.951	-2.545	-6.773	1.00	54.15	W	O
ÁTOMO	3319	O	HOH W	63	-6.141	27.599	9.560	1.00	51.61	W	O
ÁTOMO	3320	O	HOH W	64	10.484	22.284	28.826	1.00	50.78	W	O
TER	3321		HOH W	64							

[a] Los residuos de aminoácidos de cadenas ligera (L) y pesada (H) se numeran de acuerdo con el sistema de numeración Chothia mostrado en las Tablas 6 y 7, respectivamente.

[b] Las columnas se marcan de acuerdo con el Formato de Banco de Datos de Proteínas, Versión 2.2.

Tabla 11

Coordenadas de estructura de IL-13/mAb13.2 Fab[a, b] humano

	#	Nombre	Res.	Cadena	Res	X	Y	Z	occ	B	IDSeg	Ele
ÁTOMO	1	CA	ASP	L	1	19.850	-5.026	102.305	1.00	31.66	L	C
ÁTOMO	2	C	ASP	L	1	20.682	-3.882	102.873	1.00	33.17	L	C
ÁTOMO	3	O	ASP	L	1	20.895	-3.771	104.096	1.00	35.13	L	O
ÁTOMO	4	CB	ASP	L	1	18.401	-4.586	102.115	1.00	32.59	L	C
ÁTOMO	5	CG	ASP	L	1	17.478	-5.746	101.733	1.00	38.56	L	C
ÁTOMO	6	OD1	ASP	L	1	17.953	-6.910	101.564	1.00	32.48	L	O
ÁTOMO	7	OD2	ASP	L	1	16.273	-5.483	101.616	1.00	40.42	L	O
ÁTOMO	8	N	ILE	L	2	21.224	-3.062	101.987	1.00	28.09	L	N
ÁTOMO	9	CA	ILE	L	2	22.045	-1.948	102.451	1.00	25.55	L	C
ÁTOMO	10	C	ILE	L	2	21.091	-0.844	102.909	1.00	24.79	L	C
ÁTOMO	11	O	ILE	L	2	20.173	-0.469	102.186	1.00	23.23	L	O
ÁTOMO	12	CB	ILE	L	2	22.965	-1.444	101.317	1.00	24.03	L	C
ÁTOMO	13	CG1	ILE	L	2	23.822	-2.608	100.829	1.00	23.16	L	C
ÁTOMO	14	CG2	ILE	L	2	23.837	-0.288	101.800	1.00	21.56	L	C
ÁTOMO	15	CD1	ILE	L	2	24.903	-2.205	99.809	1.00	25.01	L	C
ÁTOMO	16	N	VAL	L	3	21.345	-0.288	104.091	1.00	19.63	L	N
ÁTOMO	17	CA	VAL	L	3	20.480	0.748	104.626	1.00	23.36	L	C
ÁTOMO	18	C	VAL	L	3	21.211	2.047	104.535	1.00	20.65	L	C
ÁTOMO	19	O	VAL	L	3	22.377	2.136	104.919	1.00	17.60	L	O
ÁTOMO	20	CB	VAL	L	3	20.136	0.498	106.139	1.00	25.72	L	C
ÁTOMO	21	CG1	VAL	L	3	19.351	1.686	106.702	1.00	18.81	L	C
ÁTOMO	22	CG2	VAL	L	3	19.339	-0.857	106.283	1.00	24.17	L	C
ÁTOMO	23	N	LEU	L	4	20.508	3.071	104.059	1.00	14.42	L	N
ÁTOMO	24	CA	LEU	L	4	21.161	4.374	103.883	1.00	18.70	L	C
ÁTOMO	25	C	LEU	L	4	20.546	5.304	104.877	1.00	18.25	L	C
ÁTOMO	26	O	LEU	L	4	19.327	5.432	104.897	1.00	17.11	L	O
ÁTOMO	27	CB	LEU	L	4	20.915	4.936	102.460	1.00	17.37	L	C
ÁTOMO	28	CG	LEU	L	4	21.456	4.027	101.325	1.00	18.48	L	C
ÁTOMO	29	CD1	LEU	L	4	21.321	4.756	99.972	1.00	21.81	L	C
ÁTOMO	30	CD2	LEU	L	4	22.892	3.634	101.547	1.00	10.40	L	C
ÁTOMO	31	N	THR	L	5	21.397	5.948	105.669	1.00	17.41	L	N
ÁTOMO	32	CA	THR	L	5	20.896	6.865	106.687	1.00	16.63	L	C
ÁTOMO	33	C	THR	L	5	21.375	8.274	106.385	1.00	15.60	L	C
ÁTOMO	34	O	THR	L	5	22.582	8.522	106.333	1.00	18.70	L	O
ÁTOMO	35	CB	THR	L	5	21.394	6.433	108.085	1.00	20.60	L	C
ÁTOMO	36	OG1	THR	L	5	20.969	5.078	108.303	1.00	20.77	L	O
ÁTOMO	37	CG2	THR	L	5	20.809	7.344	109.172	1.00	10.87	L	C
ÁTOMO	38	N	GLN	L	6	20.429	9.174	106.204	1.00	14.48	L	N
ÁTOMO	39	CA	GLN	L	6	20.786	10.551	105.891	1.00	19.27	L	C
ÁTOMO	40	C	GLN	L	6	20.774	11.432	107.115	1.00	20.35	L	C
ÁTOMO	41	O	GLN	L	6	20.023	11.191	108.046	1.00	21.38	L	O
ÁTOMO	42	CB	GLN	L	6	19.848	11.096	104.796	1.00	15.21	L	C
ÁTOMO	43	CG	GLN	L	6	20.026	10.323	103.428	1.00	18.45	L	C
ÁTOMO	44	CD	GLN	L	6	19.185	10.956	102.327	1.00	11.83	L	C
ÁTOMO	45	OE1	GLN	L	6	18.438	10.297	101.640	1.00	18.94	L	O
ÁTOMO	46	NE2	GLN	L	6	19.304	12.278	102.179	1.00	17.09	L	N
ÁTOMO	47	N	SER	L	7	21.629	12.437	107.115	1.00	22.15	L	N
ÁTOMO	48	CA	SER	L	7	21.659	13.375	108.226	1.00	23.60	L	C
ÁTOMO	49	C	SER	L	7	22.105	14.733	107.717	1.00	22.73	L	C
ÁTOMO	50	C	SER	L	7	22.105	14.733	107.717	1.00	22.73	L	C

ÁTOMO	51	O	SER	L	7	22.9	14.831	106.800	1.00	20.83	L	O
ÁTOMO	52	CB	SER	L	7	22.6	12.925	109.313	1.00	21.45	L	C
ÁTOMO	53	OG	SER	L	7	23.9	12.943	108.812	1.00	36.06	L	O
ÁTOMO	54	N	PRO	L	8	21.4	15.799	108.238	1.00	21.92	L	N
ÁTOMO	55	CA	PRO	L	8	20.3	15.763	109.237	1.00	17.23	L	C
ÁTOMO	56	C	PRO	L	8	19.1	15.448	108.500	1.00	18.60	L	C
ÁTOMO	57	O	PRO	L	8	19.1	15.322	107.288	1.00	18.30	L	O
ÁTOMO	58	CB	PRO	L	8	20.3	17.214	109.770	1.00	16.36	L	C
ÁTOMO	59	CG	PRO	L	8	20.6	18.012	108.547	1.00	15.96	L	C
ÁTOMO	60	CD	PRO	L	8	21.8	17.182	107.933	1.00	16.22	L	C
ÁTOMO	61	N	ALA	L	9	17.9	15.350	109.217	1.00	21.69	L	N
ÁTOMO	62	CA	ALA	L	9	16.7	15.087	108.575	1.00	20.93	L	C
ÁTOMO	63	C	ALA	L	9	16.2	16.348	107.883	1.00	23.87	L	C
ÁTOMO	64	O	ALA	L	9	15.5	16.301	106.847	1.00	23.97	L	O
ÁTOMO	65	CB	ALA	L	9	15.6	14.668	109.609	1.00	16.15	L	C
ÁTOMO	66	N	SER	L	10	16.6	17.501	108.463	1.00	23.97	L	N
ÁTOMO	67	CA	SER	L	10	16.2	18.779	107.890	1.00	23.55	L	C
ÁTOMO	68	C	SER	L	10	17.3	19.757	108.162	1.00	20.78	L	C
ÁTOMO	69	O	SER	L	10	18.0	19.669	109.245	1.00	20.28	L	O
ÁTOMO	70	CB	SER	L	10	14.9	19.288	108.657	1.00	19.45	L	C
ÁTOMO	71	OG	SER	L	10	14.3	20.370	107.960	1.00	36.04	L	O
ÁTOMO	72	N	LEU	L	11	17.6	20.652	107.203	1.00	16.86	L	N
ÁTOMO	73	CA	LEU	L	11	18.7	21.642	107.298	1.00	17.36	L	C
ÁTOMO	74	C	LEU	L	11	18.2	22.969	106.760	1.00	17.41	L	C
ÁTOMO	75	O	LEU	L	11	17.6	22.996	105.724	1.00	20.59	L	O
ÁTOMO	76	CB	LEU	L	11	19.9	21.175	106.395	1.00	21.77	L	C
ÁTOMO	77	CG	LEU	L	11	21.0	22.165	106.165	1.00	24.51	L	C
ÁTOMO	78	CD	LEU	L	11	21.6	22.491	107.531	1.00	36.89	L	C
ÁTOMO	79	CD	LEU	L	11	22.0	21.573	105.281	1.00	37.85	L	C
ÁTOMO	80	N	ALA	L	12	18.5	24.079	107.460	1.00	16.76	L	N
ÁTOMO	81	CA	ALA	L	12	18.1	25.373	106.956	1.00	17.17	L	C
ÁTOMO	82	C	ALA	L	12	19.3	26.247	106.827	1.00	16.24	L	C
ÁTOMO	83	O	ALA	L	12	20.1	26.279	107.755	1.00	14.64	L	O
ÁTOMO	84	CB	ALA	L	12	17.1	26.062	107.931	1.00	12.64	L	C
ÁTOMO	85	N	VAL	L	13	19.5	26.909	105.698	1.00	13.87	L	N
ÁTOMO	86	CA	VAL	L	13	20.6	27.848	105.538	1.00	13.69	L	C
ÁTOMO	87	C	VAL	L	13	20.1	29.106	104.907	1.00	17.25	L	C
ÁTOMO	88	O	VAL	L	13	19.0	29.117	104.336	1.00	21.72	L	O
ÁTOMO	89	CB	VAL	L	13	21.8	27.286	104.656	1.00	15.08	L	C
ÁTOMO	90	CG1	VAL	L	13	22.2	25.958	105.301	1.00	10.62	L	C
ÁTOMO	91	CG2	VAL	L	13	21.3	27.096	103.157	1.00	9.18	L	C
ÁTOMO	92	N	SER	L	14	20.9	30.202	105.000	1.00	15.71	L	N
ÁTOMO	93	CA	SER	L	14	20.4	31.440	104.326	1.00	14.91	L	C
ÁTOMO	94	C	SER	L	14	20.7	31.365	102.849	1.00	14.49	L	C
ÁTOMO	95	O	SER	L	14	21.7	30.635	102.423	1.00	13.93	L	O
ÁTOMO	96	CB	SER	L	14	21.2	32.682	104.941	1.00	11.69	L	C
ÁTOMO	97	OG	SER	L	14	20.9	32.727	106.352	1.00	18.48	L	O
ÁTOMO	98	N	LEU	L	15	20.0	32.137	102.048	1.00	13.89	L	N
ÁTOMO	99	CA	LEU	L	15	20.3	32.173	100.620	1.00	16.79	L	C
ÁTOMO	100	C	LEU	L	15	21.8	32.522	100.384	1.00	17.38	L	C
ÁTOMO	101	O	LEU	L	15	22.3	33.409	101.025	1.00	21.74	L	O
ÁTOMO	102	CB	LEU	L	15	19.4	33.258	99.927	1.00	14.69	L	C
ÁTOMO	103	CG	LEU	L	15	17.9	32.958	99.764	1.00	34.86	L	C
ÁTOMO	104	CD1	LEU	L	15	17.1	34.159	99.090	1.00	44.91	L	C
ÁTOMO	105	CD2	LEU	L	15	17.7	31.665	98.905	1.00	32.56	L	C
ÁTOMO	106	N	GLY	L	16	22.4	31.805	99.483	1.00	16.14	L	N
ÁTOMO	107	CA	GLY	L	16	23.8	32.089	99.144	1.00	12.82	L	C
ÁTOMO	108	C	GLY	L	16	24.8	31.323	99.964	1.00	14.60	L	C

ÁTOMO	109	O	GLY	L	16	25.995	31.335	99.602	1.00	18.44	L	O
ÁTOMO	110	N	GLN	L	17	24.402	30.683	101.063	1.00	10.34	L	N
ÁTOMO	111	CA	GLN	L	17	25.309	29.914	101.882	1.00	12.15	L	C
ÁTOMO	112	C	GLN	L	17	25.519	28.502	101.325	1.00	13.53	L	C
ÁTOMO	113	O	GLN	L	17	24.873	28.108	100.371	1.00	14.77	L	O
ÁTOMO	114	CB	GLN	L	17	24.776	29.775	103.318	1.00	17.40	L	C
ÁTOMO	115	CG	GLN	L	17	24.887	31.111	104.106	1.00	10.18	L	C
ÁTOMO	116	CD	GLN	L	17	24.584	30.902	105.540	1.00	17.90	L	C
ÁTOMO	117	OE1	GLN	L	17	23.622	30.187	105.905	1.00	24.84	L	O
ÁTOMO	118	NE2	GLN	L	17	25.401	31.478	106.386	1.00	4.74	L	N
ÁTOMO	119	N	ARG	L	18	26.409	27.763	101.953	1.00	13.19	L	N
ÁTOMO	120	CA	ARG	L	18	26.663	26.389	101.515	1.00	15.63	L	C
ÁTOMO	121	C	ARG	L	18	25.833	25.437	102.374	1.00	15.34	L	C
ÁTOMO	122	O	ARG	L	18	25.746	25.619	103.595	1.00	19.40	L	O
ÁTOMO	123	CB	ARG	L	18	28.182	26.066	101.682	1.00	15.02	L	C
ÁTOMO	124	CG	ARC	L	18	28.483	24.566	101.572	1.00	25.18	L	C
ÁTOMO	125	CD	ARC	L	18	29.800	24.166	102.211	1.00	39.56	L	C
ÁTOMO	126	NE	ARG	L	18	30.938	24.654	101.453	1.00	64.48	L	N
ÁTOMO	127	CZ	ARC	L	18	31.436	25.885	101.533	1.00	79.37	L	C
ÁTOMO	128	NH1	ARC	L	18	30.897	26.777	102.353	1.00	86.83	L	N
ÁTOMO	129	NH2	ARC	L	18	32.488	26.225	100.788	1.00	82.59	L	N
ÁTOMO	130	N	ALA	L	19	25.262	24.396	101.752	1.00	17.11	L	N
ÁTOMO	131	CA	ALA	L	19	24.505	23.379	102.489	1.00	12.89	L	C
ÁTOMO	132	C	ALA	L	19	25.198	22.031	102.204	1.00	16.54	L	C
ÁTOMO	133	O	ALA	L	19	25.483	21.713	101.026	1.00	22.79	L	O
ÁTOMO	134	CB	ALA	L	19	23.054	23.294	101.953	1.00	14.85	L	C
ÁTOMO	135	N	THR	L	20	25.476	21.265	103.249	1.00	14.17	L	N
ÁTOMO	136	CA	THR	L	20	26.096	19.960	103.054	1.00	15.56	L	C
ÁTOMO	137	C	THR	L	20	25.227	18.934	103.752	1.00	15.65	L	C
ÁTOMO	138	O	THR	L	20	24.813	19.126	104.923	1.00	20.89	L	O
ÁTOMO	139	CB	THR	L	20	27.533	19.985	103.630	1.00	17.90	L	C
ÁTOMO	140	OG1	THR	L	20	28.291	20.901	102.832	1.00	23.27	L	O
ÁTOMO	141	CG2	THR	L	20	28.202	18.608	103.594	1.00	20.09	L	C
ÁTOMO	142	N	ILE	L	21	24.896	17.877	103.035	1.00	14.46	L	N
ÁTOMO	143	CA	ILE	L	21	24.066	16.841	103.610	1.00	18.34	L	C
ÁTOMO	144	C	ILE	L	21	24.760	15.504	103.500	1.00	17.57	L	C
ÁTOMO	145	O	ILE	L	21	25.495	15.251	102.542	1.00	18.26	L	O
ÁTOMO	146	CB	ILE	L	21	22.648	16.809	103.010	1.00	19.09	L	C
ÁTOMO	147	CG1	ILE	L	21	22.648	16.401	101.575	1.00	29.56	L	C
ÁTOMO	148	CG2	ILE	L	21	21.985	18.173	103.154	1.00	23.73	L	C
ÁTOMO	149	CD1	ILE	L	21	21.219	16.545	100.967	1.00	37.88	L	C
ÁTOMO	150	N	SER	L	22	24.559	14.651	104.492	1.00	15.94	L	N
ÁTOMO	151	CA	SER	L	22	25.286	13.391	104.429	1.00	20.98	L	C
ÁTOMO	152	C	SER	L	22	24.467	12.148	104.321	1.00	18.51	L	C
ÁTOMO	153	O	SER	L	22	23.269	12.123	104.622	1.00	20.37	L	O
ÁTOMO	154	CB	SER	L	22	26.244	13.290	105.598	1.00	17.26	L	C
ÁTOMO	155	OG	SER	L	22	25.516	13.126	106.775	1.00	38.04	L	O
ÁTOMO	156	N	CYS	L	23	25.107	11.099	103.822	1.00	15.15	L	N
ÁTOMO	157	CA	CYS	L	23	24.383	9.833	103.656	1.00	19.93	L	C
ÁTOMO	158	C	CYS	L	23	25.370	8.749	104.099	1.00	19.09	L	C
ÁTOMO	159	O	CYS	L	23	26.497	8.706	103.609	1.00	24.06	L	O
ÁTOMO	160	CB	CYS	L	23	24.047	9.641	102.175	1.00	18.33	L	C
ÁTOMO	161	SG	CYS	L	23	23.310	8.045	101.699	1.00	19.01	L	S
ÁTOMO	162	N	LYS	L	24	24.961	7.869	105.013	1.00	19.81	L	N
ÁTOMO	163	CA	LYS	L	24	25.876	6.835	105.490	1.00	21.44	L	C
ÁTOMO	164	C	LYS	L	24	25.312	5.482	105.148	1.00	19.45	L	C
ÁTOMO	165	O	LYS	L	24	24.168	5.216	105.416	1.00	17.29	L	O
ÁTOMO	166	CB	LYS	L	24	26.089	6.960	107.018	1.00	20.14	L	C
ÁTOMO	167	CG	LYS	L	24	26.987	5.848	107.576	1.00	38.35	L	C
ÁTOMO	168	CD	LYS	L	24	27.320	6.037	109.086	1.00	55.69	L	C

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ATOMO	169	CE	LYS	L	24	28.358	7.158	109.343	1.00	65.78	L	C
ATOMO	170	NZ	LYS	L	24	27.749	8.535	109.135	1.00	73.97	L	N
ATOMO	171	N	ALA	L	25	26.122	4.613	104.564	1.00	16.58	L	N
ATOMO	172	CA	ALA	L	25	25.595	3.290	104.192	1.00	20.95	L	C
ATOMO	173	C	ALA	L	25	26.021	2.214	105.224	1.00	20.06	L	C
ATOMO	174	O	ALA	L	25	27.130	2.293	105.753	1.00	21.66	L	O
ATOMO	175	CB	ALA	L	25	26.141	2.885	102.822	1.00	16.44	L	C
ATOMO	176	N	SER	L	26	25.176	1.214	105.434	1.00	20.89	L	N
ATOMO	177	CA	SER	L	26	25.502	0.134	106.403	1.00	24.53	L	C
ATOMO	178	C	SER	L	26	26.614	-0.805	105.917	1.00	24.48	L	C
ATOMO	179	O	SER	L	26	27.258	-1.521	106.720	1.00	25.97	L	O
ATOMO	180	CB	SER	L	26	24.234	-0.680	106.758	1.00	20.85	L	C
ATOMO	181	OG	SER	L	26	23.577	-1.189	105.615	1.00	24.47	L	O
ATOMO	182	N	GLU	L	27	26.848	-0.797	104.598	1.00	25.23	L	N
ATOMO	183	CA	GLU	L	27	27.889	-1.606	103.971	1.00	22.24	L	C
ATOMO	184	C	GLU	L	27	28.484	-0.723	102.886	1.00	22.04	L	C
ATOMO	185	O	GLU	L	27	27.831	0.237	102.428	1.00	25.83	L	O
ATOMO	186	CB	GLU	L	27	27.293	-2.881	103.288	1.00	16.57	L	C
ATOMO	187	CG	GLU	L	27	26.251	-3.624	104.048	1.00	17.06	L	C
ATOMO	188	CD	GLU	L	27	25.816	-4.858	103.275	1.00	25.63	L	C
ATOMO	189	OE1	GLU	L	27	24.831	-5.516	103.672	1.00	18.33	L	O
ATOMO	190	OE2	GLU	L	27	26.515	-5.132	102.264	1.00	23.85	L	O
ATOMO	191	N	SER	L	28	29.698	-1.029	102.455	1.00	23.92	L	N
ATOMO	192	CA	SER	L	28	30.355	-0.237	101.412	1.00	20.04	L	C
ATOMO	193	C	SER	L	28	29.562	-0.293	100.128	1.00	21.07	L	C
ATOMO	194	O	SER	L	28	28.967	-1.329	99.782	1.00	23.98	L	O
ATOMO	195	CB	SER	L	28	31.779	-0.778	101.121	1.00	18.95	L	C
ATOMO	196	OG	SER	L	28	32.408	-0.078	100.037	1.00	28.13	L	O
ATOMO	197	N	VAL	L	29	29.570	0.798	99.383	1.00	18.22	L	N
ATOMO	198	CA	VAL	L	29	28.829	0.788	98.103	1.00	17.79	L	C
ATOMO	199	C	VAL	L	29	29.840	0.937	96.981	1.00	19.59	L	C
ATOMO	200	O	VAL	L	29	29.465	1.207	95.837	1.00	22.01	L	O
ATOMO	201	CB	VAL	L	29	27.766	1.940	98.010	1.00	17.51	L	C
ATOMO	202	CG1	VAL	L	29	26.675	1.740	99.072	1.00	12.98	L	C
ATOMO	203	CG2	VAL	L	29	28.441	3.326	98.172	1.00	16.63	L	C
ATOMO	204	N	ASP	L	3U	31.127	0.708	97.279	1.00	17.33	L	N
ATOMO	205	CA	ASP	L	30	32.178	0.849	96.268	1.00	18.23	L	C
ATOMO	206	C	ASP	L	30	32.339	-0.453	95.497	1.00	19.53	L	C
ATOMO	207	O	ASP	L	30	32.219	-1.559	96.071	1.00	26.39	L	O
ATOMO	208	CB	ASP	L	30	33.534	1.153	96.908	1.00	12.12	L	C
ATOMO	209	CG	ASP	L	30	33.662	2.592	97.326	1.00	22.31	L	C
ATOMO	210	OD1	ASP	L	30	34.761	2.975	97.764	1.00	29.89	L	O
ATOMO	211	OD2	ASP	L	30	32.676	3.331	97.208	1.00	18.13	L	O
ATOMO	212	N	ASN	L	30A	32.617	-0.316	94.206	1.00	20.90	L	N
ATOMO	213	CA	ASN	L	30A	32.797	-1.499	93.344	1.00	22.44	L	C
ATOMO	214	C	ASN	L	30A	34.090	-1.203	92.623	1.00	23.21	L	C
ATOMO	215	O	ASN	L	30A	34.141	-0.339	91.735	1.00	25.31	L	O
ATOMO	216	CB	ASN	L	30A	31.693	-1.594	92.283	1.00	20.72	L	C
ATOMO	217	CG	ASN	L	30A	31.884	-2.785	91.384	1.00	24.84	L	C
ATOMO	218	OD1	ASN	L	30A	31.800	-3.934	91.852	1.00	24.37	L	O
ATOMO	219	ND2	ASN	L	30A	32.149	-2.530	90.071	1.00	23.26	L	N
ATOMO	220	N	TYR	L	30B	35.161	-1.861	93.051	1.00	23.88	L	N
ATOMO	221	CA	TYR	L	30B	36.460	-1.652	92.445	1.00	21.04	L	C
ATOMO	222	C	TYR	L	30B	36.823	-0.230	92.173	1.00	18.95	L	C
ATOMO	223	O	TYR	L	30B	37.123	0.166	91.038	1.00	21.35	L	O
ATOMO	224	CB	TYR	L	30B	36.567	-2.494	91.176	1.00	19.64	L	C
ATOMO	225	CG	TYR	L	30B	36.520	-3.965	91.534	1.00	26.67	L	C
ATOMO	226	CD1	TYR	L	30B	37.580	-4.556	92.215	1.00	17.83	L	C
ATOMO	227	CD2	TYR	L	30B	35.427	-4.754	91.211	1.00	30.04	L	C
ATOMO	228	CE1	TYR	L	30B	37.542	-5.890	92.556	1.00	28.99	L	C

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ÁTOMO	229	CE2	TYR	L	30B	35.375	-6.104	91.553	1.00	38.10	L	C
ÁTOMO	230	CZ	TYR	L	30B	36.445	-6.657	92.229	1.00	32.14	L	C
ÁTOMO	231	OH	TYR	L	30B	36.429	-7.974	92.591	1.00	34.61	L	O
ÁTOMO	232	N	GLY	L	30C	36.774	0.560	93.236	1.00	20.14	L	N
ÁTOMO	233	CA	GLY	L	30C	37.178	1.951	93.126	1.00	21.20	L	C
ÁTOMO	234	C	GLY	L	30C	36.101	2.933	92.676	1.00	25.36	L	C
ÁTOMO	235	O	GLY	L	30C	36.355	4.122	92.635	1.00	29.51	L	O
ÁTOMO	236	N	LYS	L	30D	34.925	2.437	92.306	1.00	22.83	L	N
ÁTOMO	237	CA	LYS	L	30D	33.833	3.328	91.845	1.00	23.04	L	C
ÁTOMO	238	C	LYS	L	30D	32.767	3.306	92.943	1.00	22.36	L	C
ÁTOMO	239	O	LYS	L	30D	32.407	2.230	93.382	1.00	17.33	L	O
ÁTOMO	240	CB	LYS	L	30D	33.195	2.807	90.554	1.00	24.66	L	C
ÁTOMO	241	CG	LYS	L	30D	33.949	3.156	89.277	1.00	29.64	L	C
ÁTOMO	242	CD	LYS	L	30D	35.097	2.195	88.997	1.00	26.58	L	C
ÁTOMO	243	CE	LYS	L	30D	34.641	0.783	88.732	1.00	21.88	L	C
ÁTOMO	244	NZ	LYS	L	30D	35.869	-0.054	88.518	1.00	25.71	L	N
ÁTOMO	245	N	SER	L	31	32.263	4.488	93.362	1.00	16.41	L	N
ÁTOMO	246	CA	SER	L	31	31.266	4.493	94.450	1.00	14.47	L	C
ÁTOMO	247	C	SER	L	31	29.876	4.552	93.817	1.00	12.87	L	C
ÁTOMO	248	O	SER	L	31	29.559	5.508	93.135	1.00	17.73	L	O
ÁTOMO	249	CB	SER	L	31	31.528	5.718	95.369	1.00	13.31	L	C
ÁTOMO	250	OG	SER	L	31	32.772	5.543	96.018	1.00	9.74	L	O
ÁTOMO	251	N	LEU	L	32	29.068	3.533	94.047	1.00	14.84	L	N
ÁTOMO	252	CA	LEU	L	32	27.737	3.444	93.414	1.00	15.21	L	C
ÁTOMO	253	C	LEU	L	32	26.661	4.109	94.271	1.00	15.33	L	C
ÁTOMO	254	O	LEU	L	32	25.759	3.444	94.743	1.00	15.90	L	O
ÁTOMO	255	CB	LEU	L	32	27.410	1.946	93.122	1.00	14.19	L	C
ÁTOMO	256	CG	LEU	L	32	28.528	1.268	92.240	1.00	16.68	L	C
ÁTOMO	257	CD1	LEU	L	32	28.098	-0.113	91.812	1.00	19.02	L	C
ÁTOMO	258	CD2	LEU	L	32	28.841	2.115	90.956	1.00	16.75	L	C
ÁTOMO	259	N	MET	L	33	26.805	5.422	94.446	1.00	15.14	L	N
ÁTOMO	260	CA	MET	L	33	25.858	6.243	95.228	1.00	15.51	L	C
ÁTOMO	261	C	MET	L	33	25.424	7.400	94.306	1.00	14.12	L	C
ÁTOMO	262	O	MET	L	33	26.268	8.060	93.664	1.00	14.69	L	O
ÁTOMO	263	CB	MET	L	33	26.522	6.857	96.482	1.00	16.89	L	C
ÁTOMO	264	CG	MET	L	33	25.438	7.575	97.437	1.00	11.58	L	C
ÁTOMO	265	SD	MET	L	33	24.457	6.317	98.203	1.00	25.28	L	S
ÁTOMO	266	CE	MET	L	33	25.482	5.831	99.589	1.00	11.25	L	C
ÁTOMO	267	N	HIS	L	34	24.114	7.621	94.239	1.00	11.24	L	N
ÁTOMO	268	CA	HIS	L	34	23.566	8.649	93.369	1.00	10.81	L	C
ÁTOMO	269	C	HIS	L	34	22.672	9.529	94.235	1.00	13.28	L	C
ÁTOMO	270	O	HIS	L	34	22.163	9.062	95.283	1.00	7.46	L	O
ÁTOMO	271	CB	HIS	L	34	22.709	7.988	92.278	1.00	9.21	L	C
ÁTOMO	272	CG	HIS	L	34	23.392	6.816	91.619	1.00	19.51	L	C
ÁTOMO	273	ND1	HIS	L	34	24.568	6.950	90.896	1.00	18.89	L	N
ÁTOMO	274	CD2	HIS	L	34	23.061	5.501	91.562	1.00	19.95	L	C
ÁTOMO	275	CE1	HIS	L	34	24.932	5.770	90.429	1.00	8.56	L	C
ÁTOMO	276	NE2	HIS	L	34	24.037	4.874	90.815	1.00	18.35	L	N
ÁTOMO	277	N	TRP	L	35	22.478	10.770	93.806	1.00	11.97	L	N
ÁTOMO	278	CA	TRP	L	35	21.658	11.731	94.603	1.00	14.22	L	C
ÁTOMO	279	C	TRP	L	35	20.557	12.321	93.730	1.00	14.57	L	C
ÁTOMO	280	O	TRP	L	35	20.793	12.665	92.577	1.00	13.68	L	O
ÁTOMO	281	CB	TRP	L	35	22.525	12.914	95.123	1.00	12.34	L	C
ÁTOMO	282	CG	TRP	L	35	23.529	12.532	96.148	1.00	18.11	L	C
ÁTOMO	283	CD1	TRP	L	35	24.842	12.167	95.941	1.00	13.80	L	C
ÁTOMO	284	CD2	TRP	L	35	23.346	12.610	97.560	1.00	15.53	L	C
ÁTOMO	285	NE1	TRP	L	35	25.491	12.027	97.158	1.00	7.32	L	N
ÁTOMO	286	CE2	TRP	L	35	24.588	12.302	98.164	1.00	10.41	L	C
ÁTOMO	287	CE3	TRP	L	35	22.242	12.928	98.381	1.00	22.77	L	C

ÁTOMO	288	CZ2	TRP L	35	24.756	12.300	99.551	1.00	16.39	L	C
ÁTOMO	289	CZ3	TRP L	35	22.396	12.933	99.730	1.00	10.74	L	C
ÁTOMO	290	CH2	TRP L	35	23.643	12.622	100.320	1.00	11.41	L	C
ÁTOMO	291	N	TYR L	36	19.362	12.470	94.306	1.00	13.73	L	N
ÁTOMO	292	CA	TYR L	36	18.212	13.005	93.593	1.00	13.32	L	C
ÁTOMO	293	C	TYR L	36	17.614	14.178	94.360	1.00	12.87	L	C
ÁTOMO	294	O	TYR L	36	17.681	14.233	95.579	1.00	11.74	L	O
ÁTOMO	295	CB	TYR L	36	17.081	11.942	93.464	1.00	13.04	L	C
ÁTOMO	296	CG	TYR L	36	17.545	10.667	92.771	1.00	11.47	L	C
ÁTOMO	297	CD1	TYR L	36	18.207	9.660	93.488	1.00	9.50	L	C
ÁTOMO	298	CD2	TYR L	36	17.398	10.526	91.391	1.00	12.45	L	C
ÁTOMO	299	CE1	TYR L	36	18.739	8.534	92.820	1.00	12.96	L	C
ÁTOMO	300	CE2	TYR L	36	17.907	9.414	90.729	1.00	10.42	L	C
ÁTOMO	301	CZ	TYR L	36	18.578	8.436	91.445	1.00	12.56	L	C
ÁTOMO	302	OH	TYR L	36	19.180	7.385	90.768	1.00	13.38	L	O
ÁTOMO	303	N	GLN L	37	16.981	15.072	93.620	1.00	10.25	L	N
ÁTOMO	304	CA	GLN L	37	16.254	16.180	94.252	1.00	11.70	L	C
ÁTOMO	305	C	GLN L	37	14.783	15.956	93.941	1.00	13.16	L	C
ÁTOMO	306	O	GLN L	37	14.444	15.606	92.794	1.00	17.26	L	O
ÁTOMO	307	CB	GLN L	37	16.649	17.515	93.600	1.00	10.59	L	C
ÁTOMO	308	CG	GLN L	37	15.845	18.749	94.028	1.00	10.72	L	C
ÁTOMO	309	CD	GLN L	37	16.206	19.926	93.103	1.00	15.26	L	C
ÁTOMO	310	OE1	GLN L	37	15.916	19.885	91.887	1.00	16.02	L	O
ÁTOMO	311	NE2	GLN L	37	16.857	20.947	93.659	1.00	13.48	L	N
ÁTOMO	312	N	GLN L	38	13.916	16.212	94.921	1.00	17.77	L	N
ÁTOMO	313	CA	GLN L	38	12.470	16.140	94.680	1.00	20.77	L	C
ÁTOMO	314	C	GLN L	38	11.804	17.343	95.326	1.00	21.40	L	C
ÁTOMO	315	O	GLN L	38	11.828	17.509	96.563	1.00	22.63	L	O
ÁTOMO	316	CB	GLN L	38	11.835	14.901	95.313	1.00	19.42	L	C
ÁTOMO	317	CG	GLN L	38	10.354	14.805	94.968	1.00	13.86	L	C
ÁTOMO	318	CD	GLN L	38	9.748	13.498	95.491	1.00	19.68	L	C
ÁTOMO	319	OE1	GLN L	38	10.122	13.011	96.545	1.00	14.26	L	O
ÁTOMO	320	NE2	GLN L	38	8.834	12.935	94.726	1.00	19.99	L	N
ÁTOMO	321	N	LYS L	39	11.254	18.170	94.457	1.00	24.73	L	N
ÁTOMO	322	CA	LYS L	39	10.505	19.355	94.879	1.00	26.95	L	C
ÁTOMO	323	C	LYS L	39	9.047	18.965	95.083	1.00	31.28	L	C
ÁTOMO	324	O	LYS L	39	8.492	18.004	94.493	1.00	27.67	L	O
ÁTOMO	325	CB	LYS L	39	10.624	20.467	93.817	1.00	25.37	L	C
ÁTOMO	326	CG	LYS L	39	12.024	20.994	93.607	1.00	28.24	L	C
ÁTOMO	327	CD	LYS L	39	12.109	21.962	92.440	1.00	25.89	L	C
ÁTOMO	328	CE	LYS L	39	13.525	22.460	92.197	1.00	41.55	L	C
ÁTOMO	329	NZ	LYS L	39	13.723	23.040	90.805	1.00	39.62	L	N
ÁTOMO	330	N	PRO L	40	8.384	19.708	95.969	1.00	37.71	L	N
ÁTOMO	331	CA	PRO L	40	6.984	19.511	96.310	1.00	40.24	L	C
ÁTOMO	332	C	PRO L	40	6.129	19.315	95.045	1.00	37.39	L	C
ÁTOMO	333	O	PRO L	40	6.226	20.104	94.122	1.00	35.53	L	O
ÁTOMO	334	CB	PRO L	40	6.637	20.819	97.036	1.00	44.21	L	C
ÁTOMO	335	CG	PRO L	40	7.926	21.168	97.729	1.00	42.86	L	C
ÁTOMO	336	CD	PRO L	40	8.954	20.888	96.653	1.00	39.12	L	C
ÁTOMO	337	N	GLY L	41	5.363	18.230	95.002	1.00	36.74	L	N
ÁTOMO	338	CA	GLY L	41	4.506	17.946	93.862	1.00	36.85	L	C
ÁTOMO	339	C	GLY L	41	5.202	17.572	92.568	1.00	35.88	L	C
ÁTOMO	340	O	GLY L	41	4.576	17.503	91.523	1.00	35.09	L	O
ÁTOMO	341	N	GLN L	42	6.510	17.325	92.626	1.00	35.27	L	N
ÁTOMO	342	CA	GLN L	42	7.237	16.955	91.424	1.00	28.24	L	C
ÁTOMO	343	C	GLN L	42	7.856	15.584	91.607	1.00	25.86	L	C
ÁTOMO	344	O	GLN L	42	7.921	15.047	92.697	1.00	25.25	L	O
ÁTOMO	345	CB	GLN L	42	8.386	17.959	91.124	1.00	29.72	L	C
ÁTOMO	346	CG	GLN L	42	7.950	19.357	90.729	1.00	34.63	L	C
ÁTOMO	347	CD	GLN L	42	9.127	20.234	90.242	1.00	45.60	L	C

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ÁTOMO	348	OE1	GLN	L	42	8.965	21.421	90.002	1.00	50.47	L	O
ÁTOMO	349	NE2	GLN	L	42	10.303	19.639	90.094	1.00	47.27	L	N
ÁTOMO	350	N	SER	L	43	8.340	15.026	90.506	1.00	22.44	L	N
ÁTOMO	351	CA	SER	L	43	8.985	13.744	90.587	1.00	23.17	L	C
ÁTOMO	352	C	SER	L	43	10.490	13.988	90.930	1.00	21.02	L	C
ÁTOMO	353	O	SER	L	43	10.986	15.104	90.802	1.00	19.00	L	O
ÁTOMO	354	CB	SER	L	43	8.831	13.041	89.213	1.00	24.31	L	C
ÁTOMO	355	OG	SER	L	43	9.851	13.443	88.334	1.00	31.71	L	O
ÁTOMO	356	N	PRO	L	44	11.186	12.953	91.401	1.00	19.03	L	N
ÁTOMO	357	CA	PRO	L	44	12.619	13.056	91.738	1.00	19.57	L	C
ÁTOMO	358	C	PRO	L	44	13.403	13.344	90.454	1.00	19.17	L	C
ÁTOMO	359	O	PRO	L	44	12.971	12.997	89.339	1.00	17.27	L	O
ÁTOMO	360	CB	PRO	L	44	12.963	11.675	92.304	1.00	20.33	L	C
ÁTOMO	361	CG	PRO	L	44	11.568	11.163	92.901	1.00	14.26	L	C
ÁTOMO	362	CD	PRO	L	44	10.630	11.645	91.786	1.00	17.98	L	C
ÁTOMO	363	N	ALA	L	45	14.576	13.942	90.603	1.00	14.94	L	N
ÁTOMO	364	CA	ALA	L	45	15.400	14.217	89.428	1.00	15.76	L	C
ÁTOMO	365	C	ALA	L	45	16.833	13.921	89.846	1.00	15.71	L	C
ÁTOMO	366	O	ALA	L	45	17.287	14.318	90.927	1.00	14.34	L	O
ÁTOMO	367	CB	ALA	L	45	15.300	15.702	89.000	1.00	17.79	L	C
ÁTOMO	368	N	LEU	L	46	17.545	13.285	88.948	1.00	15.14	L	N
ÁTOMO	369	CA	LEU	L	46	18.948	12.903	89.212	1.00	11.85	L	C
ÁTOMO	370	C	LEU	L	46	19.841	14.154	89.206	1.00	12.85	L	C
ÁTOMO	371	O	LEU	L	46	19.825	14.944	88.247	1.00	12.83	L	O
ÁTOMO	372	CB	LEU	L	46	19.416	11.894	88.107	1.00	9.18	L	C
ÁTOMO	373	CG	LEU	L	46	20.875	11.408	88.320	1.00	8.52	L	C
ÁTOMO	374	CD1	LEU	L	46	21.074	10.591	89.660	1.00	8.06	L	C
ÁTOMO	375	CD2	LEU	L	46	21.269	10.533	87.111	1.00	7.61	L	C
ÁTOMO	376	N	LEU	L	47	20.630	14.323	90.277	1.00	11.81	L	N
ÁTOMO	377	CA	LEU	L	47	21.578	15.439	90.384	1.00	11.37	L	C
ÁTOMO	378	C	LEU	L	47	23.038	15.014	90.150	1.00	11.22	L	C
ÁTOMO	379	O	LEU	L	47	23.774	15.649	89.393	1.00	13.32	L	O
ÁTOMO	380	CB	LEU	L	47	21.556	15.997	91.789	1.00	11.40	L	C
ÁTOMO	381	CG	LEU	L	47	20.215	16.587	92.289	1.00	11.75	L	C
ÁTOMO	382	CD1	LEU	L	47	20.362	16.812	93.810	1.00	11.87	L	C
ÁTOMO	383	CD2	LEU	L	47	19.911	17.879	91.522	1.00	4.80	L	C
ÁTOMO	384	N	ILE	L	48	23.422	13.952	90.856	1.00	12.53	L	N
ÁTOMO	385	CA	ILE	L	48	24.800	13.468	90.883	1.00	10.52	L	C
ÁTOMO	386	C	ILE	L	48	24.821	11.953	90.754	1.00	14.33	L	C
ÁTOMO	387	O	ILE	L	48	24.066	11.263	91.443	1.00	16.13	L	O
ÁTOMO	388	CB	ILE	L	48	25.444	13.826	92.281	1.00	11.93	L	C
ÁTOMO	389	CG1	ILE	L	48	25.465	15.351	92.495	1.00	9.28	L	C
ÁTOMO	390	CG2	ILE	L	48	26.842	13.136	92.431	1.00	11.58	L	C
ÁTOMO	391	CD1	ILE	L	48	26.422	16.165	91.519	1.00	14.29	L	C
ÁTOMO	392	N	TYR	L	49	25.651	11.424	89.860	1.00	12.80	L	N
ÁTOMO	393	CA	TYR	L	49	25.698	9.977	89.790	1.00	14.45	L	C
ÁTOMO	394	C	TYR	L	49	27.118	9.484	90.107	1.00	13.75	L	C
ÁTOMO	395	O	TYR	L	49	28.114	10.177	89.869	1.00	14.87	L	O
ÁTOMO	396	CB	TYR	L	49	25.223	9.449	88.419	1.00	6.50	L	C
ÁTOMO	397	CG	TYR	L	49	26.079	9.899	87.246	1.00	14.44	L	C
ÁTOMO	398	CD1	TYR	L	49	27.100	9.105	86.733	1.00	9.63	L	C
ÁTOMO	399	CD2	TYR	L	49	25.840	11.131	86.646	1.00	20.17	L	C
ÁTOMO	400	CE1	TYR	L	49	27.876	9.531	85,632	1.00	18.33	L	C
ÁTOMO	401	CE2	TYR	L	49	26.620	11.584	85.542	1.00	22.28	L	C
ÁTOMO	402	CZ	TYR	L	49	27.624	10.778	85.049	1.00	20.57	L	C
ÁTOMO	403	OH	TYR	L	49	28.372	11.257	83.987	1.00	19.11	L	O
ÁTOMO	404	N	ARG	L	50	27.176	8.279	90.648	1.00	14.11	L	N
ÁTOMO	405	CA	ARG	L	50	28.461	7.617	90.962	1.00	16.52	L	C
ÁTOMO	406	C	ARG	L	50	29.311	8.530	91.871	1.00	16.04	L	C
ÁTOMO	407	O	ARG	L	50	30.480	8.795	91.583	1.00	14.95	L	O

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ÁTOMO	408	CB	ARG	L	50	29.228	7.293	89.673	1.00	12.62	L	C
ÁTOMO	409	CG	ARG	L	50	30.084	5.998	89.784	1.00	15.10	L	C
ÁTOMO	410	CD	ARG	L	50	30.933	5.820	88.460	1.00	11.26	L	C
ÁTOMO	411	NE	ARG	L	50	30.073	5.942	87.252	1.00	23.52	L	N
ÁTOMO	412	CZ	ARG	L	50	30.543	6.227	86.037	1.00	20.37	L	C
ÁTOMO	413	NH1	ARG	L	50	31.852	6.404	85.858	1.00	26.18	L	N
ÁTOMO	414	NH2	ARG	L	50	29.727	6.354	85.003	1.00	18.24	L	N
ÁTOMO	415	N	ALA	L	51	28.621	9.031	92.901	1.00	14.01	L	N
ÁTOMO	416	CA	ALA	L	51	29.125	9.886	93.975	1.00	14.19	L	C
ÁTOMO	417	C	ALA	L	51	29.531	11.309	93.680	1.00	16.63	L	C
ÁTOMO	418	O	ALA	L	51	29.255	12.190	94.481	1.00	15.01	L	O
ÁTOMO	419	CB	ALA	L	51	30.288	9.177	94.727	1.00	6.77	L	C
ÁTOMO	420	N	SER	L	52	30.119	11.555	92.509	1.00	14.35	L	N
ÁTOMO	421	CA	SER	L	52	30.652	12.887	92.214	1.00	12.90	L	C
ÁTOMO	422	C	SER	L	52	30.437	13.427	90.815	1.00	10.83	L	C
ÁTOMO	423	O	SER	L	52	30.884	14.542	90.504	1.00	9.89	L	O
ÁTOMO	424	CB	SER	L	52	32.179	12.851	92.476	1.00	5.64	L	C
ÁTOMO	425	OG	SER	L	52	32.747	11.797	91.672	1.00	19.18	L	O
ÁTOMO	426	N	ASN	L	53	29.747	12.677	89.962	1.00	10.80	L	N
ÁTOMO	427	CA	ASN	L	53	29.575	13.143	88.561	1.00	6.02	L	C
ÁTOMO	428	C	ASN	L	53	28.301	13.953	88.439	1.00	13.29	L	C
ÁTOMO	429	O	ASN	L	53	27.228	13.468	88.813	1.00	15.20	L	O
ÁTOMO	430	CB	ASN	L	53	29.461	11.954	87.630	1.00	9.04	L	C
ÁTOMO	431	CG	ASN	L	53	30.756	11.172	87.594	1.00	15.97	L	C
ÁTOMO	432	OD1	ASN	L	53	31.787	11.705	87.178	1.00	24.43	L	O
ÁTOMO	433	ND2	ASN	L	53	30.730	9.948	88.079	1.00	23.89	L	N
ÁTOMO	434	N	LEU	L	54	28.443	15.143	87.880	1.00	12.27	L	N
ÁTOMO	435	CA	LEU	L	54	27.296	16.075	87.725	1.00	11.19	L	C
ÁTOMO	436	C	LEU	L	54	26.438	15.659	86.539	1.00	13.26	L	C
ÁTOMO	437	O	LEU	L	54	26.928	15.572	85.400	1.00	17.40	L	O
ÁTOMO	438	CB	LEU	L	54	27.866	17.498	87.499	1.00	9.35	L	C
ÁTOMO	439	CG	LEU	L	54	26.793	18.590	87.336	1.00	9.35	L	C
ÁTOMO	440	CD1	LEU	L	54	26.013	18.667	88.688	1.00	11.24	L	C
ÁTOMO	441	CD2	LEU	L	54	27.473	20.001	86.935	1.00	10.06	L	C
ÁTOMO	442	N	GLU	L	55	25.152	15.437	86.792	1.00	13.19	L	N
ÁTOMO	443	CA	GLU	L	55	24.271	15.056	85.715	1.00	13.50	L	C
ÁTOMO	444	C	GLU	L	55	24.099	16.206	84.684	1.00	16.40	L	C
ÁTOMO	445	O	GLU	L	55	23.952	17.356	85.035	1.00	16.66	L	O
ÁTOMO	446	CB	GLU	L	55	22.935	14.633	86.323	1.00	17.40	L	C
ÁTOMO	447	CG	GLU	L	55	21.891	14.257	85.238	1.00	18.71	L	C
ÁTOMO	448	CD	GLU	L	55	22.174	12.930	84.538	1.00	21.37	L	C
ÁTOMO	449	OE1	GLU	L	55	23.189	12.227	84.879	1.00	29.09	L	O
ÁTOMO	450	OE2	GLU	L	55	21.366	12.583	83.642	1.00	14.35	L	O
ÁTOMO	451	N	SER	L	56	24.141	15.873	83.390	1.00	18.45	L	N
ÁTOMO	452	CA	SER	L	56	23.959	16.910	82.370	1.00	21.02	L	C
ÁTOMO	453	C	SER	L	56	22.660	17.692	82.628	1.00	20.45	L	C
ÁTOMO	454	O	SER	L	56	21.610	17.089	82.907	1.00	23.00	L	O
ÁTOMO	455	CB	SER	L	56	23.893	16.260	80.972	1.00	23.30	L	C
ÁTOMO	456	OG	SER	L	56	23.696	17.280	79.990	1.00	35.05	L	O
ÁTOMO	457	N	GLY	L	57	22.735	19.017	82.564	1.00	16.05	L	N
ÁTOMO	458	CA	GLY	L	57	21.540	19.832	82.794	1.00	15.79	L	C
ÁTOMO	459	C	GLY	L	57	21.383	20.336	84.219	1.00	17.48	L	C
ÁTOMO	460	O	GLY	L	57	20.604	21.239	84.470	1.00	20.76	L	O
ÁTOMO	461	N	ILE	L	58	22.130	19.758	85.154	1.00	15.63	L	N
ÁTOMO	461	N	ILE	L	58	22.130	19.758	85.154	1.00	15.63	L	N
ÁTOMO	462	CA	ILE	L	58	22.077	20.199	86.559	1.00	13.54	L	C
ÁTOMO	463	C	ILE	L	58	23.210	21.225	86.775	1.00	14.57	L	C
ÁTOMO	464	O	ILE	L	58	24.353	20.972	86.376	1.00	15.41	L	O

ÁTOMO	465	CB	ILE L	58	22.321	18.985	87.479	1.00	16.14	L	C
ÁTOMO	466	CG1	ILE L	58	21.248	17.925	87.205	1.00	10.84	L	C
ÁTOMO	467	CG2	ILE L	58	22.293	19.433	88.957	1.00	14.42	L	C
ÁTOMO	468	CD1	ILE L	58	19.771	18.436	87.373	1.00	7.96	L	C
ÁTOMO	469	N	PRO L	59	22.933	22.351	87.471	1.00	16.57	L	N
ÁTOMO	470	CA	PRO L	59	24.011	23.324	87.650	1.00	15.02	L	C
ÁTOMO	471	C	PRO L	59	25.127	22.857	88.586	1.00	17.68	L	C
ÁTOMO	472	O	PRO L	59	24.888	22.119	89.551	1.00	20.81	L	O
ÁTOMO	473	CB	PRO L	59	23.296	24.567	88.181	1.00	13.09	L	C
ÁTOMO	474	CG	PRO L	59	22.119	24.013	88.932	1.00	14.55	L	C
ÁTOMO	475	CD	PRO L	59	21.702	22.766	88.166	1.00	16.37	L	C
ÁTOMO	476	N	ALA L	60	26.342	23.352	88.335	1.00	15.03	L	N
ÁTOMO	477	CA	ALA L	60	27.482	22.936	89.141	1.00	15.80	L	C
ÁTOMO	478	C	ALA L	60	27.443	23.436	90.588	1.00	16.37	L	C
ÁTOMO	479	O	ALA L	60	28.370	23.164	91.349	1.00	14.10	L	O
ÁTOMO	465	CB	ILE L	58	22.321	18.985	87.479	1.00	16.14	L	C
ÁTOMO	466	CG1	ILE L	58	21.248	17.925	87.205	1.00	10.84	L	C
ÁTOMO	467	CG2	ILE L	58	22.293	19.433	88.957	1.00	14.42	L	C
ÁTOMO	468	CD1	ILE L	58	19.771	18.436	87.373	1.00	7.96	L	C
ÁTOMO	469	N	PRO L	59	22.933	22.351	87.471	1.00	16.57	L	N
ÁTOMO	470	CA	PRO L	59	24.011	23.324	87.650	1.00	15.02	L	C
ÁTOMO	471	C	PRO L	59	25.127	22.857	88.586	1.00	17.68	L	C
ÁTOMO	472	O	PRO L	59	24.888	22.119	89.551	1.00	20.81	L	O
ÁTOMO	473	CB	PRO L	59	23.296	24.567	88.181	1.00	13.09	L	C
ÁTOMO	474	CG	PRO L	59	22.119	24.013	88.932	1.00	14.55	L	C
ÁTOMO	475	CD	PRO L	59	21.702	22.766	88.166	1.00	16.37	L	C
ÁTOMO	476	N	ALA L	60	26.342	23.352	88.335	1.00	15.03	L	N
ÁTOMO	477	CA	ALA L	60	27.482	22.936	89.141	1.00	15.80	L	C
ÁTOMO	478	C	ALA L	60	27.443	23.436	90.588	1.00	16.37	L	C
ÁTOMO	479	O	ALA L	60	28.370	23.164	91.349	1.00	14.10	L	O
ÁTOMO	517	CB	SER L	65	32.914	14.491	98.011	1.00	17.37	L	C
ÁTOMO	518	OG	SER L	65	32.304	14.967	99.193	1.00	31.08	L	O
ÁTOMO	519	N	GLY L	66	32.795	11.582	98.630	1.00	17.49	L	N
ÁTOMO	520	CA	GLY L	66	32.711	10.462	99.551	1.00	12.08	L	C
ÁTOMO	521	C	GLY L	66	33.145	9.168	98.886	1.00	17.57	L	C
ÁTOMO	522	O	GLY L	66	33.445	9.144	97.696	1.00	20.81	L	O
ÁTOMO	523	N	SER L	67	33.215	8.099	99.673	1.00	17.22	L	N
ÁTOMO	524	CA	SER L	67	33.591	6.784	99.170	1.00	17.33	L	C
ÁTOMO	525	C	SER L	67	33.241	5.817	100.287	1.00	18.00	L	C
ÁTOMO	526	O	SER L	67	32.990	6.220	101.444	1.00	16.60	L	O
ÁTOMO	527	CB	SER L	67	35.103	6.694	98.886	1.00	14.43	L	C
ÁTOMO	528	OG	SER L	67	35.792	6.817	100.136	1.00	15.13	L	O
ÁTOMO	529	N	ARG L	68	33.193	4.550	99.906	1.00	18.02	L	N
ÁTOMO	530	CA	ARG L	68	32.875	3.463	100.793	1.00	21.90	L	C
ÁTOMO	531	C	ARG L	68	31.494	3.545	101.440	1.00	23.10	L	C
ÁTOMO	532	O	ARG L	68	30.486	3.175	100.813	1.00	22.85	L	O
ÁTOMO	533	CB	ARG L	68	34.003	3.352	101.843	1.00	22.76	L	C
ÁTOMO	534	CG	ARG L	68	35.389	3.070	101.227	1.00	26.60	L	C
ÁTOMO	535	CD	ARG L	68	36.416	2.896	102.374	1.00	48.13	L	C
ÁTOMO	536	NE	ARG L	68	37.790	3.179	101.986	1.00	67.04	L	N
ÁTOMO	537	CZ	ARG L	68	38.466	4.289	102.301	1.00	77.72	L	C
ÁTOMO	538	NH1	ARG L	68	37.902	5.257	103.019	1.00	74.08	L	N
ÁTOMO	539	NH2	ARG L	68	39.737	4.417	101.918	1.00	83.92	L	N
ÁTOMO	540	N	THR L	69	31.431	4.023	102.691	1.00	24.77	L	N
ÁTOMO	541	CA	THR L	69	30.144	4.114	103.374	1.00	27.13	L	C
ÁTOMO	542	C	THR L	69	29.698	5.545	103.712	1.00	26.51	L	C
ÁTOMO	543	O	THR L	69	28.592	5.726	104.182	1.00	28.14	L	O
ÁTOMO	544	CB	THR L	69	30.158	3.306	104.710	1.00	26.91	L	C

ÁTOMO	545	OG1	THR	L	69	31.166	3.856	105.554	1.00	27.96	L	O
ÁTOMO	546	CG2	THR	L	69	30.523	1.820	104.424	1.00	25.31	L	C
ÁTOMO	547	N	ASP	L	70	30.517	6.552	103.434	1.00	20.56	L	N
ÁTOMO	548	CA	ASP	L	70	30.158	7.926	103.803	1.00	22.63	L	C
ÁTOMO	549	C	ASP	L	70	30.238	8.863	102.615	1.00	20.68	L	C
ÁTOMO	550	O	ASP	L	70	31.290	9.031	102.016	1.00	26.56	L	O
ÁTOMO	551	CB	ASP	L	70	31.118	8.435	104.889	1.00	26.74	L	C
ÁTOMO	552	CG	ASP	L	70	31.033	7.586	106.173	1.00	33.17	L	C
ÁTOMO	553	OD1	ASP	L	70	30.028	7.693	106.878	1.00	45.62	L	O
ÁTOMO	554	OD2	ASP	L	70	31.954	6.800	106.428	1.00	48.35	L	O
ÁTOMO	555	N	PHE	L	71	29.124	9.526	102.329	1.00	17.29	L	N
ÁTOMO	556	CA	PHE	L	71	29.041	10.426	101.185	1.00	18.07	L	C
ÁTOMO	557	C	PHE	L	71	28.411	11.739	101.605	1.00	16.31	L	C
ÁTOMO	558	O	PHE	L	71	27.691	11.797	102.608	1.00	14.04	L	O
ÁTOMO	559	CB	PHE	L	71	28.138	9.766	100.109	1.00	16.27	L	C
ÁTOMO	560	CG	PHE	L	71	28.709	8.463	99.614	1.00	15.39	L	C
ÁTOMO	561	CD1	PHE	L	71	28.523	7.284	100.325	1.00	11.66	L	C
ÁTOMO	562	CD2	PHE	L	71	29.579	8.462	98.525	1.00	7.25	L	C
ÁTOMO	563	CE1	PHE	L	71	29.223	6.062	99.951	1.00	12.24	L	C
ÁTOMO	564	CE2	PHE	L	71	30.268	7.301	98.153	1.00	7.98	L	C
ÁTOMO	565	CZ	PHE	L	71	30.084	6.092	98.878	1.00	8.50	L	C
ÁTOMO	566	N	THR	L	72	28.624	12.765	100.801	1.00	17.20	L	N
ÁTOMO	567	CA	THR	L	72	27.998	14.035	101.081	1.00	17.62	L	C
ÁTOMO	568	C	THR	L	72	27.575	14.675	99.751	1.00	19.31	L	C
ÁTOMO	569	O	THR	L	72	28.196	14.435	98.717	1.00	20.88	L	O
ÁTOMO	570	CB	THR	L	72	28.964	15.020	101.770	1.00	15.55	L	C
ÁTOMO	571	OG1	THR	L	72	30.058	15.250	100.913	1.00	23.82	L	O
ÁTOMO	572	CG2	THR	L	72	29.542	14.436	103.030	1.00	15.82	L	C
ÁTOMO	573	N	LEU	L	73	26.493	15.457	99.807	1.00	19.72	L	N
ÁTOMO	574	CA	LEU	L	73	26.030	16.236	98.663	1.00	16.55	L	C
ÁTOMO	575	C	LEU	L	73	26.217	17.677	99.201	1.00	14.66	L	C
ÁTOMO	576	O	LEU	L	73	25.783	17.976	100.322	1.00	18.46	L	O
ÁTOMO	577	CB	LEU	L	73	24.513	15.996	98.415	1.00	12.04	L	C
ÁTOMO	578	CG	LEU	L	73	23.862	16.933	97.412	1.00	15.16	L	C
ÁTOMO	579	CD1	LEU	L	73	24.364	16.622	95.971	1.00	7.12	L	C
ÁTOMO	580	CD2	LEU	L	73	22.333	16.778	97.425	1.00	10.12	L	C
ÁTOMO	581	N	THR	L	74	26.779	18.549	98.366	1.00	15.06	L	N
ÁTOMO	582	CA	THR	L	74	27.001	19.931	98.745	1.00	14.50	L	C
ÁTOMO	583	C	THR	L	74	26.271	20.792	97.744	1.00	16.15	L	C
ÁTOMO	584	O	THR	L	74	26.297	20.513	96.532	1.00	20.55	L	O
ÁTOMO	585	CB	THR	L	74	28.497	20.274	98.756	1.00	14.01	L	C
ÁTOMO	586	OG1	THR	L	74	29.136	19.508	99.777	1.00	10.91	L	O
ÁTOMO	587	CG2	THR	L	74	28.719	21.793	99.068	1.00	8.51	L	C
ÁTOMO	588	N	ILE	L	75	25.520	21.784	98.233	1.00	16.30	L	N
ÁTOMO	589	CA	ILE	L	75	24.842	22.717	97.352	1.00	16.67	L	C
ÁTOMO	590	C	ILE	L	75	25.515	24.052	97.687	1.00	20.52	L	C
ÁTOMO	591	O	ILE	L	75	25.481	24.501	98.855	1.00	21.73	L	O
ÁTOMO	592	CB	ILE	L	75	23.331	22.809	97.656	1.00	20.98	L	C
ÁTOMO	593	CG1	ILE	L	75	22.756	21.387	97.597	1.00	14.60	L	C
ÁTOMO	594	CG2	ILE	L	75	22.643	23.703	96.641	1.00	7.63	L	C
ÁTOMO	595	CD1	ILE	L	75	21.239	21.348	97.963	1.00	10.72	L	C
ÁTOMO	596	N	ASN	L	76	26.085	24.703	96.691	1.00	18.75	L	N
ÁTOMO	597	CA	ASN	L	76	26.803	25.941	97.025	1.00	18.83	L	C
ÁTOMO	598	C	ASN	L	76	27.022	26.797	95.789	1.00	19.14	L	C
ÁTOMO	599	O	ASN	L	76	27.640	26.378	94.829	1.00	20.66	L	O
ÁTOMO	600	CB	ASN	L	76	28.159	25.535	97.655	1.00	20.07	L	C
ÁTOMO	601	CG	ASN	L	76	28.920	26.738	98.205	1.00	20.61	L	C
ÁTOMO	602	OD1	ASN	L	76	28.30	27.682	98.681	1.00	20.96	L	O
ÁTOMO	603	ND2	ASN	L	76	30.24	26.690	98.175	1.00	25.64	L	N

ÁTOMO	604	N	PRO	L	77	26.467	28.005	95.757	1.00	22.23	L	N
ÁTOMO	605	CA	PRO	L	77	25.632	28.644	96.793	1.00	22.24	L	C
ÁTOMO	606	C	PRO	L	77	24.205	28.126	96.665	1.00	22.29	L	C
ÁTOMO	607	O	PRO	L	77	23.721	27.852	95.567	1.00	23.37	L	O
ÁTOMO	608	CB	PRO	L	77	25.651	30.135	96.414	1.00	20.03	L	C
ÁTOMO	609	CG	PRO	L	77	25.601	30.058	94.807	1.00	18.01	L	C
ÁTOMO	610	CD	PRO	L	77	26.621	28.854	94.560	1.00	19.60	L	C
ÁTOMO	611	N	VAL	L	78	23.516	28.051	97.794	1.00	19.30	L	N
ÁTOMO	612	CA	VAL	L	78	22.086	27.650	97.773	1.00	15.86	L	C
ÁTOMO	613	C	VAL	L	78	21.237	28.809	97.198	1.00	15.02	L	C
ÁTOMO	614	O	VAL	L	78	21.528	30.006	97.458	1.00	18.62	L	O
ÁTOMO	615	CB	VAL	L	78	21.659	27.342	99.240	1.00	10.76	L	C
ÁTOMO	616	CG1	VAL	L	78	20.108	27.338	99.344	1.00	15.65	L	C
ÁTOMO	617	CG2	VAL	L	78	22.225	25.962	99.691	1.00	8.70	L	C
ÁTOMO	618	N	GLU	L	79	20.229	28.482	96.385	1.00	15.66	L	N
ÁTOMO	619	CA	GLU	L	79	19.303	29.452	95.777	1.00	15.48	L	C
ÁTOMO	620	C	GLU	L	79	17.890	29.108	96.280	1.00	19.00	L	C
ÁTOMO	621	O	GLU	L	79	17.679	28.011	96.728	1.00	18.75	L	O
ÁTOMO	622	C13	GLU	L	79	19.341	29.354	94.257	1.00	16.52	L	C
ÁTOMO	623	CG	GLU	L	79	20.703	29.701	93.731	1.00	17.33	L	C
ÁTOMO	624	CD	GLU	L	79	20.771	29.892	92.198	1.00	31.97	L	C
ÁTOMO	625	OE1	GLU	L	79	21.811	30.362	91.749	1.00	36.07	L	O
ÁTOMO	626	OE2	GLU	L	79	19.829	29.549	91.476	1.00	19.91	L	O
ÁTOMO	627	N	ALA	L	80	16.946	30.041	96.179	1.00	17.42	L	N
ÁTOMO	628	CA	ALA	L	80	15.594	29.804	96.728	1.00	15.69	L	C
ÁTOMO	629	C	ALA	L	80	14.941	28.596	96.125	1.00	17.37	L	C
ÁTOMO	630	O	ALA	L	80	14.202	27.902	96.797	1.00	20.28	L	O
ÁTOMO	631	CB	ALA	L	80	14.655	31.034	96.432	1.00	17.81	L	C
ÁTOMO	632	N	ASP	L	81	15.181	28.374	94.839	1.00	19.11	L	N
ÁTOMO	633	CA	ASP	L	81	14.492	27.254	94.184	1.00	20.13	L	C
ÁTOMO	634	C	ASP	L	81	15.083	25.903	94.533	1.00	18.90	L	C
ÁTOMO	635	O	ASP	L	81	14.614	24.889	93.991	1.00	22.61	L	O
ÁTOMO	636	CB	ASP	L	81	14.467	27.444	92.658	1.00	20.21	L	C
ÁTOMO	637	CG	ASP	L	81	13.575	26.430	91.938	1.00	34.87	L	C
ÁTOMO	638	OD1	ASP	L	81	12.398	26.284	92.319	1.00	48.81	L	O
ÁTOMO	639	OD2	ASP	L	81	14.054	25.764	90.982	1.00	50.24	L	O
ÁTOMO	640	N	ASP	L	82	16.057	25.871	95.453	1.00	16.98	L	N
ÁTOMO	641	CA	ASP	L	82	16.640	24.587	95.887	1.00	15.01	L	C
ÁTOMO	642	C	ASP	L	82	15.839	23.921	97.038	1.00	15.72	L	C
ÁTOMO	643	O	ASP	L	82	16.144	22.779	97.470	1.00	19.30	L	O
ÁTOMO	644	CB	ASP	L	82	18.088	24.761	96.328	1.00	13.58	L	C
ÁTOMO	645	CG	ASP	L	82	19.016	25.236	95.161	1.00	19.81	L	C
ÁTOMO	646	OD1	ASP	L	82	18.685	25.119	93.925	1.00	15.99	L	O
ÁTOMO	647	OD2	ASP	L	82	20.081	25.777	95.531	1.00	22.54	L	O
ÁTOMO	648	N	VAL	L	83	14.810	24.609	97.553	1.00	15.10	L	N
ÁTOMO	649	CA	VAL	L	83	14.008	23.957	98.617	1.00	18.05	L	C
ÁTOMO	650	C	VAL	L	83	13.427	22.662	98.020	1.00	17.36	L	C
ÁTOMO	651	O	VAL	L	83	12.820	22.650	96.948	1.00	17.48	L	O
ÁTOMO	652	CB	VAL	L	83	12.914	24.905	99.174	1.00	15.94	L	C
ÁTOMO	653	CG1	VAL	L	83	13.604	25.942	100.046	1.00	23.49	L	C
ÁTOMO	654	CG2	VAL	L	83	12.227	25.582	98.130	1.00	25.18	L	C
ÁTOMO	655	N	ALA	L	84	13.651	21.576	98.738	1.00	15.63	L	N
ÁTOMO	656	CA	ALA	L	84	13.272	20.269	98.218	1.00	14.84	L	C
ÁTOMO	657	C	ALA	L	84	13.732	19.240	99.214	1.00	15.55	L	C
ÁTOMO	658	O	ALA	L	84	14.336	19.576	100.253	1.00	15.84	L	O
ÁTOMO	659	CB	ALA	L	84	14.071	20.056	96.900	1.00	14.40	L	C
ÁTOMO	660	N	THR	L	85	13.416	17.959	98.930	1.00	15.71	L	N
ÁTOMO	661	CA	THR	L	85	13.960	16.888	99.739	1.00	15.45	L	C
ÁTOMO	662	C	THR	L	85	15.005	16.210	98.843	1.00	15.12	L	C
ÁTOMO	663	O	THR	L	85	14.727	15.967	97.667	1.00	15.93	L	O

ÁTOMO	664	CB	THR	L	85	12.845	15.855	100.140	1.00	17.03	L	C
ÁTOMO	665	OG1	THR	L	85	11.920	16.521	101.021	1.00	22.01	L	O
ÁTOMO	666	CG2	THR	L	85	13.470	14.657	100.918	1.00	8.72	L	C
ÁTOMO	667	N	TYR	L	86	16.183	15.916	99.411	1.00	14.04	L	N
ÁTOMO	668	CA	TYR	L	86	17.268	15.309	98.667	1.00	13.13	L	C
ÁTOMO	669	C	TYR	L	86	17.447	13.879	99.156	1.00	16.69	L	C
ÁTOMO	670	O	TYR	L	86	17.458	13.637	100.330	1.00	18.94	L	O
ÁTOMO	671	CB	TYR	L	86	18.564	16.109	98.896	1.00	11.97	L	C
ÁTOMO	672	CG	TYR	L	86	18.443	17.491	98.305	1.00	11.60	L	C
ÁTOMO	673	CD1	TYR	L	86	17.811	18.516	98.981	1.00	7.53	L	C
ÁTOMO	674	CD2	TYR	L	86	18.872	17.734	97.006	1.00	12.00	L	C
ÁTOMO	675	CE1	TYR	L	86	17.590	19.772	98.364	1.00	11.09	L	C
ÁTOMO	676	CE2	TYR	L	86	18.678	18.955	96.389	1.00	11.34	L	C
ÁTOMO	677	CZ	TYR	L	86	18.043	19.968	97.056	1.00	17.23	L	C
ÁTOMO	678	OH	TYR	L	86	17.888	21.177	96.447	1.00	15.79	L	O
ÁTOMO	679	N	TYR	L	87	17.559	12.936	98.214	1.00	16.92	L	N
ÁTOMO	680	CA	TYR	L	87	17.721	11.533	98.587	1.00	13.58	L	C
ÁTOMO	681	C	TYR	L	87	19.002	10.935	98.055	1.00	12.86	L	C
ÁTOMO	682	O	TYR	L	87	19.326	11.195	96.894	1.00	18.14	L	O
ÁTOMO	683	CB	TYR	L	87	16.618	10.684	97.963	1.00	6.47	L	C
ÁTOMO	684	CG	TYR	L	87	15.235	11.018	98.457	1.00	18.98	L	C
ÁTOMO	685	CD1	TYR	L	87	14.461	11.985	97.824	1.00	11.56	L	C
ÁTOMO	686	CD2	TYR	L	87	14.684	10.318	99.518	1.00	14.13	L	C
ÁTOMO	687	CE1	TYR	L	87	13.156	12.228	98.246	1.00	15.50	L	C
ÁTOMO	688	CE2	TYR	L	87	13.358	10.572	99.941	1.00	7.09	L	C
ÁTOMO	689	CZ	TYR	L	87	12.621	11.510	99.306	1.00	17.61	L	C
ÁTOMO	690	OH	TYR	L	87	11.313	11.799	99.716	1.00	18.17	L	O
ÁTOMO	691	N	CYS	L	88	19.673	10.099	98.850	1.00	9.84	L	N
ÁTOMO	692	CA	CYS	L	88	20.813	9.367	98.272	1.00	14.40	L	C
ÁTOMO	693	C	CYS	L	88	20.235	7.961	97.902	1.00	15.10	L	C
ÁTOMO	694	O	CYS	L	88	19.136	7.592	98.357	1.00	18.42	L	O
ÁTOMO	695	CB	CYS	L	88	21.962	9.241	99.263	1.00	12.72	L	C
ÁTOMO	696	SG	CYS	L	88	21.464	8.575	100.910	1.00	16.04	L	S
ÁTOMO	697	N	GLN	L	89	20.944	7.220	97.041	1.00	11.35	L	N
ÁTOMO	698	CA	GLN	L	89	20.468	5.917	96.588	1.00	9.96	L	C
ÁTOMO	699	C	GLN	L	89	21.692	5.101	96.156	1.00	13.56	L	C
ÁTOMO	700	O	GLN	L	89	22.591	5.652	95.507	1.00	14.17	L	O
ÁTOMO	701	CB	GLN	L	89	19.561	6.138	95.392	1.00	9.47	L	C
ÁTOMO	702	CG	GLN	L	89	18.988	4.858	94.748	1.00	8.43	L	C
ÁTOMO	703	CD	GLN	L	89	19.713	4.527	93.433	1.00	12.81	L	C
ÁTOMO	704	OE1	GLN	L	89	19.766	5.348	92.490	1.00	13.05	L	O
ÁTOMO	705	NE2	GLN	L	89	20.250	3.310	93.364	1.00	7.99	L	N
ÁTOMO	706	N	GLN	L	90	21.744	3.825	96.542	1.00	12.73	L	N
ÁTOMO	707	CA	GLN	L	90	22.913	2.994	96.196	1.00	11.36	L	C
ÁTOMO	708	C	GLN	L	90	22.517	1.939	95.194	1.00	12.24	L	C
ÁTOMO	709	O	GLN	L	90	21.399	1.436	95.209	1.00	8.64	L	O
ÁTOMO	710	CB	GLN	L	90	23.527	2.285	97.415	1.00	9.81	L	C
ÁTOMO	711	CG	GLN	L	90	22.598	1.298	98.110	1.00	14.99	L	C
ÁTOMO	712	CD	GLN	L	90	22.598	-0.129	97.521	1.00	18.05	L	C
ÁTOMO	713	OE1	GLN	L	90	23.545	-0.566	96.864	1.00	15.88	L	O
ÁTOMO	714	NE2	GLN	L	90	21.518	-0.858	97.800	1.00	20.57	L	N
ÁTOMO	715	N	SER	L	91	23.473	1.641	94.322	1.00	13.95	L	N
ÁTOMO	716	CA	SER	L	91	23.290	0.693	93.251	1.00	19.79	L	C
ÁTOMO	717	C	SER	L	91	24.352	-0.403	93.325	1.00	18.67	L	C
ÁTOMO	718	O	SER	L	91	24.611	-1.040	92.298	1.00	19.36	L	O
ÁTOMO	719	CB	SER	L	91	23.441	1.425	91.887	1.00	15.12	L	C
ÁTOMO	720	OG	SER	L	91	22.237	2.067	91.586	1.00	33.42	L	O
ÁTOMO	721	N	ASN	L	92	24.930	-0.634	94.510	1.00	16.12	L	N
ÁTOMO	722	CA	ASN	L	92	25.989	-1.659	94.620	1.00	15.63	L	C
ÁTOMO	723	C	ASN	L	92	25.422	-3.053	94.890	1.00	14.30	L	C
ÁTOMO	724	O	ASN	L	92	26.015	-4.064	94.460	1.00	16.71	L	O

ÁTOMO	725	CB	ASN	L	92	27.040	-1.288	95.676	1.00	15.71	L	C
ÁTOMO	726	CG	ASN	L	92	28.307	-2.149	95.545	1.00	14.45	L	C
ÁTOMO	727	OD1	ASN	L	92	28.831	-2.324	94.450	1.00	27.57	L	O
ÁTOMO	728	ND2	ASN	L	92	28.770	-2.700	96.656	1.00	25.93	L	N
ÁTOMO	729	N	GLU	L	93	24.279	-3.143	95.562	1.00	16.66	L	N
ÁTOMO	730	CA	GLU	L	93	23.643	-4.433	95.783	1.00	16.68	L	C
ÁTOMO	731	C	GLU	L	93	22.164	-4.332	95.540	1.00	18.74	L	C
ÁTOMO	732	O	GLU	L	93	21.542	-3.325	95.804	1.00	20.03	L	O
ÁTOMO	733	CB	GLU	L	93	23.772	-4.934	97.261	1.00	20.26	L	C
ÁTOMO	734	CG	GLU	L	93	25.164	-5.095	97.612	1.00	24.66	L	C
ÁTOMO	735	CD	GLU	L	93	25.373	-5.930	98.887	1.00	27.35	L	C
ÁTOMO	736	OE1	GLU	L	93	24.422	-6.153	99.638	1.00	20.40	L	O
ÁTOMO	737	OE2	GLU	L	93	26.517	-6.309	99.032	1.00	31.57	L	O
ÁTOMO	738	N	ASP	L	94	21.584	-5.438	95.123	1.00	20.63	L	N
ÁTOMO	739	CA	ASP	L	94	20.123	-5.480	94.983	1.00	17.16	L	C
ÁTOMO	740	C	ASP	L	94	19.620	-5.956	96.366	1.00	16.50	L	C
ÁTOMO	741	O	ASP	L	94	20.278	-6.748	97.008	1.00	21.43	L	O
ÁTOMO	742	CB	ASP	L	94	19.746	-6.525	93.962	1.00	18.30	L	C
ÁTOMO	743	CG	ASP	L	94	20.195	-6.159	92.573	1.00	22.97	L	C
ÁTOMO	744	OD1	ASP	L	94	20.453	-4.967	92.336	1.00	31.49	L	O
ÁTOMO	745	OD2	ASP	L	94	20.255	-7.058	91.718	1.00	33.23	L	O
ÁTOMO	746	N	PRO	L	95	18.473	-5.447	96.836	1.00	18.36	L	N
ÁTOMO	747	CA	PRO	L	95	17.663	-4.449	96.112	1.00	15.59	L	C
ÁTOMO	748	C	PRO	L	95	18.313	-3.067	96.210	1.00	15.03	L	C
ÁTOMO	749	O	PRO	L	95	18.880	-2.731	97.243	1.00	15.51	L	O
ÁTOMO	750	CB	PRO	L	95	16.325	-4.466	96.865	1.00	15.24	L	C
ÁTOMO	751	CG	PRO	L	95	16.748	-4.764	98.308	1.00	19.84	L	C
ÁTOMO	752	CD	PRO	L	95	17.832	-5.859	98.104	1.00	18.49	L	C
ÁTOMO	753	N	TRP	L	96	18.190	-2.249	95.169	1.00	12.53	L	N
ÁTOMO	754	CA	TRP	L	96	18.751	-0.916	95.285	1.00	11.43	L	C
ÁTOMO	755	C	TRP	L	96	17.888	-0.227	96.339	1.00	15.42	L	C
ÁTOMO	756	O	TRP	L	96	16.668	-0.463	96.364	1.00	16.13	L	O
ÁTOMO	757	CB	TRP	L	96	18.596	-0.141	93.994	1.00	6.29	L	C
ÁTOMO	758	CG	TRP	L	96	19.497	-0.624	92.924	1.00	18.26	L	C
ÁTOMO	759	CD1	TRP	L	96	20.292	-1.701	92.954	1.00	23.00	L	C
ÁTOMO	760	CD2	TRP	L	96	19.694	0.007	91.657	1.00	15.27	L	C
ÁTOMO	761	NE1	TRP	L	96	21.009	-1.785	91.775	1.00	15.73	L	N
ÁTOMO	762	CE2	TRP	L	96	20.650	-0.744	90.964	1.00	22.20	L	C
ÁTOMO	763	CE3	TRP	L	96	19.148	1.137	91.058	1.00	13.08	L	C
ÁTOMO	764	CZ2	TRP	L	96	21.092	-0.397	89.681	1.00	23.50	L	C
ÁTOMO	765	CZ3	TRP	L	96	19.583	1.498	89.787	1.00	29.69	L	C
ÁTOMO	766	CH2	TRP	L	96	20.552	0.729	89.118	1.00	23.23	L	C
ÁTOMO	767	N	THR	L	97	18.521	0.636	97.153	1.00	14.07	L	N
ÁTOMO	768	CA	THR	L	97	17.784	1.306	98.212	1.00	14.31	L	C
ÁTOMO	769	C	THR	L	97	18.051	2.804	98.229	1.00	16.18	L	C
ÁTOMO	770	O	THR	L	97	19.063	3.276	97.707	1.00	18.79	L	O
ÁTOMO	771	CB	THR	L	97	18.160	0.742	99.570	1.00	13.49	L	C
ÁTOMO	772	OG1	THR	L	97	19.588	0.642	99.618	1.00	17.28	L	O
ÁTOMO	773	CG2	THR	L	97	17.561	-0.728	99.749	1.00	10.34	L	C
ÁTOMO	774	N	PHE	L	98	17.119	3.515	98.851	1.00	16.74	L	N
ÁTOMO	775	CA	PHE	L	98	17.173	4.966	98.957	1.00	15.24	L	C
ÁTOMO	776	C	PHE	L	98	17.292	5.386	100.417	1.00	14.99	L	C
ÁTOMO	777	O	PHE	L	98	16.795	4.676	101.313	1.00	13.01	L	O
ÁTOMO	778	CB	PHE	L	98	15.898	5.572	98.435	1.00	12.91	L	C
ÁTOMO	779	CG	PHE	L	98	15.721	5.522	96.952	1.00	13.58	L	C
ÁTOMO	780	CD1	PHE	L	98	15.204	4.390	96.335	1.00	11.52	L	C
ÁTOMO	781	CD2	PHE	L	98	16.004	6.648	96.173	1.00	10.32	L	C
ÁTOMO	782	CE1	PHE	L	98	14.981	4.388	94.966	1.00	10.75	L	C
ÁTOMO	783	CE2	PHE	L	98	15.770	6.644	94.808	1.00	13.28	L	C

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ÁTOMO	784	CZ	PHE	L	98	15.259	5.503	94.217	1.00	15.23	L	C
ÁTOMO	785	N	GLY	L	99	17.984	6.511	100.661	1.00	13.55	L	N
ÁTOMO	786	CA	GLY	L	99	18.027	7.055	102.027	1.00	10.54	L	C
ÁTOMO	787	C	GLY	L	99	16.637	7.610	102.318	1.00	12.58	L	C
ÁTOMO	788	O	GLY	L	99	15.796	7.735	101.424	1.00	9.94	L	O
ÁTOMO	789	N	GLY	L	100	16.424	8.022	103.565	1.00	12.36	L	N
ÁTOMO	790	CA	GLY	L	100	15.147	8.553	103.982	1.00	8.70	L	C
ÁTOMO	791	C	GLY	L	100	14.891	10.004	103.583	1.00	15.60	L	C
ÁTOMO	792	O	GLY	L	100	13.803	10.533	103.828	1.00	17.49	L	O
ÁTOMO	793	N	GLY	L	101	15.910	10.695	103.040	1.00	15.34	L	N
ÁTOMO	794	CA	GLY	L	101	15.662	12.053	102.574	1.00	18.81	L	C
ÁTOMO	795	C	GLY	L	101	16.100	13.108	103.567	1.00	17.29	L	C
ÁTOMO	796	O	GLY	L	101	16.044	12.868	104.775	1.00	18.50	L	O
ÁTOMO	797	N	THR	L	102	16.577	14.239	103.050	1.00	15.70	L	N
ÁTOMO	798	CA	THR	L	102	16.963	15.383	103.902	1.00	13.96	L	C
ÁTOMO	799	C	THR	L	102	16.243	16.556	103.300	1.00	12.46	L	C
ÁTOMO	800	O	THR	L	102	16.358	16.831	102.080	1.00	11.12	L	O
ÁTOMO	801	CB	THR	L	102	18.526	15.654	103.915	1.00	13.19	L	C
ÁTOMO	802	OO1	THR	L	102	19.194	14.618	104.653	1.00	18.45	L	O
ÁTOMO	803	CG2	THR	L	102	18.813	17.042	104.578	1.00	7.06	L	C
ÁTOMO	804	N	LYS	L	103	15.488	17.279	104.130	1.00	11.45	L	N
ÁTOMO	805	CA	LYS	L	103	14.756	18.405	103.615	1.00	13.95	L	C
ÁTOMO	806	C	LYS	L	103	15.578	19.704	103.729	1.00	12.14	L	C
ÁTOMO	807	O	LYS	L	103	16.098	19.996	104.795	1.00	16.90	L	O
ÁTOMO	808	CB	LYS	L	103	13.411	18.609	104.360	1.00	11.00	L	C
ÁTOMO	809	CG	LYS	L	103	12.759	19.922	103.933	1.00	25.30	L	C
ÁTOMO	810	CD	LYS	L	103	11.185	19.917	103.860	1.00	32.62	L	C
ÁTOMO	811	CE	LYS	L	103	10.533	19.242	105.063	1.00	42.65	L	C
ÁTOMO	812	NZ	LYS	L	103	9.000	19.156	104.966	1.00	51.76	L	N
ÁTOMO	813	N	LEU	L	104	15.689	20.453	102.641	1.00	11.40	L	N
ÁTOMO	814	CA	LEU	L	104	16.470	21.727	102.700	1.00	14.03	L	C
ÁTOMO	815	C	LEU	L	104	15.472	22.912	102.763	1.00	16.12	L	C
ÁTOMO	816	O	LEU	L	104	14.494	22.989	101.964	1.00	19.86	L	O
ÁTOMO	817	CB	LEU	L	104	17.316	21.896	101.444	1.00	17.08	L	C
ÁTOMO	818	CG	LEU	L	104	18.153	23.204	101.382	1.00	15.21	L	C
ÁTOMO	819	CD1	LEU	L	104	19.243	23.200	102.465	1.00	14.42	L	C
ÁTOMO	820	CD2	LEU	L	104	18.758	23.351	99.967	1.00	21.88	L	C
ÁTOMO	821	N	GLU	L	105	15.738	23.838	103.669	1.00	19.74	L	N
ÁTOMO	822	CA	GLU	L	105	14.883	25.048	103.776	1.00	23.03	L	C
ÁTOMO	823	C	GLU	L	105	15.777	26.266	103.798	1.00	21.66	L	C
ÁTOMO	824	O	GLU	L	105	16.995	26.152	104.094	1.00	23.85	L	O
ÁTOMO	825	L13	GLU	L	105	14.058	24.996	105.055	1.00	20.70	L	C
ÁTOMO	826	CG	GLU	L	105	12.822	24.033	104.818	1.00	42.64	L	C
ÁTOMO	827	CD	GLU	L	105	11.991	23.732	106.069	1.00	41.20	L	C
ÁTOMO	828	OE1	GLU	L	105	12.550	23.403	107.145	1.00	48.80	L	O
ÁTOMO	829	OE2	GLU	L	105	10.772	23.799	105.946	1.00	35.54	L	O
ÁTOMO	830	N	ILE	L	106	15.167	27.409	103.518	1.00	19.49	L	N
ÁTOMO	831	CA	ILE	L	106	15.897	28.691	103.477	1.00	18.78	L	C
ÁTOMO	832	C	ILE	L	106	15.594	29.515	104.702	1.00	18.92	L	C
ÁTOMO	833	O	ILE	L	106	14.423	29.655	105.047	1.00	17.74	L	O
ÁTOMO	834	CB	ILE	L	106	15.454	29.520	102.269	1.00	18.45	L	C
ÁTOMO	835	CG1	ILE	L	106	15.651	28.723	100.961	1.00	23.36	L	C
ÁTOMO	836	CG2	ILE	L	106	16.165	30.884	102.287	1.00	17.39	L	C
ÁTOMO	837	CD1	ILE	L	106	17.082	28.290	100.736	1.00	11.46	L	C
ÁTOMO	838	N	LYS	L	107	16.622	30.020	105.397	1.00	18.87	L	N
ÁTOMO	839	CA	LYS	L	107	16.391	30.902	106.544	1.00	18.21	L	C
ÁTOMO	840	CB	LYS	L	107	17.507	30.812	107.505	1.00	13.40	L	C
ÁTOMO	841	C	LYS	L	107	16.341	32.312	105.953	1.00	21.75	L	C
ÁTOMO	842	O	LYS	L	107	17.316	32.765	105.330	1.00	26.63	L	O

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ÁTOMO	843	N	ARG	L	108	15.208	33.001	106.064	1.00	24.68	L	N
ÁTOMO	844	CA	ARG	L	108	15.110	34.375	105.588	1.00	23.09	L	C
ÁTOMO	845	C	ARG	L	108	14.597	35.310	106.685	1.00	22.48	L	C
ÁTOMO	846	O	ARG	L	108	14.547	34.974	107.860	1.00	26.67	L	O
ÁTOMO	847	CB	ARG	L	108	14.151	34.397	104.397	1.00	19.08	L	C
ÁTOMO	848	CG	ARG	L	108	12.735	33.971	104.784	1.00	22.27	L	C
ÁTOMO	849	CD	ARG	L	108	11.672	34.639	103.903	1.00	21.24	L	C
ÁTOMO	850	NE	ARG	L	108	11.420	36.012	104.351	1.00	20.00	L	N
ÁTOMO	851	CZ	ARG	L	108	10.862	36.858	103.466	1.00	20.00	L	C
ÁTOMO	852	NH1	ARG	L	108	10.555	36.441	102.250	1.00	20.00	L	N
ÁTOMO	853	NH2	ARG	L	108	10.614	38.120	103.825	1.00	20.00	L	N
ÁTOMO	854	N	ALA	L	109	14.245	36.539	106.266	1.00	22.10	L	N
ÁTOMO	855	CA	ALA	L	109	13.729	37.503	107.229	1.00	25.90	L	C
ÁTOMO	856	C	ALA	L	109	12.312	37.142	107.681	1.00	28.19	L	C
ÁTOMO	857	O	ALA	L	109	11.497	36.641	106.918	1.00	28.86	L	O
ÁTOMO	858	CB	ALA	L	109	13.730	38.883	106.570	1.00	19.28	L	C
ÁTOMO	859	N	ASP	L	110	11.904	37.545	108.886	1.00	24.17	L	N
ÁTOMO	860	CA	ASP	L	110	10.526	37.268	109.294	1.00	21.56	L	C
ÁTOMO	861	C	ASP	L	110	9.516	37.934	108.346	1.00	23.66	L	C
ÁTOMO	862	O	ASP	L	110	9.784	39.005	107.830	1.00	22.76	L	O
ÁTOMO	863	CB	ASP	L	110	10.297	37.805	110.698	1.00	19.33	L	C
ÁTOMO	864	CG	ASP	L	110	11.020	37.003	111.751	1.00	26.80	L	C
ÁTOMO	865	OD1	ASP	L	110	11.593	35.921	111.458	1.00	25.30	L	O
ÁTOMO	866	OD2	ASP	L	110	10.969	37.446	112.915	1.00	38.99	L	O
ÁTOMO	867	N	ALA	L	111	8.357	37.305	108.118	1.00	21.57	L	N
ÁTOMO	868	CA	ALA	L	111	7.330	37.901	107.280	1.00	17.99	L	C
ÁTOMO	869	C	ALA	L	111	5.960	37.587	107.893	1.00	20.07	L	C
ÁTOMO	870	O	ALA	L	111	5.625	36.421	108.163	1.00	22.24	L	O
ÁTOMO	871	CB	ALA	L	111	7.398	37.378	105.886	1.00	11.33	L	C
ÁTOMO	872	N	ALA	L	112	5.147	38.608	108.115	1.00	18.94	L	N
ÁTOMO	873	CA	ALA	L	112	3.860	38.333	108.766	1.00	18.42	L	C
ÁTOMO	874	C	ALA	L	112	2.873	37.698	107.817	1.00	20.56	L	C
ÁTOMO	875	O	ALA	L	112	2.869	37.981	106.647	1.00	25.17	L	O
ÁTOMO	876	CB	ALA	L	112	3.221	39.653	109.324	1.00	15.77	L	C
ÁTOMO	877	N	PRO	L	113	1.957	36.867	108.343	1.00	19.48	L	N
ÁTOMO	878	CA	PRO	L	113	0.994	36.258	107.426	1.00	17.01	L	C
ÁTOMO	879	C	PRO	L	113	-0.051	37.193	106.895	1.00	17.50	L	C
ÁTOMO	880	O	PRO	L	113	-0.427	38.129	107.573	1.00	21.67	L	O
ÁTOMO	881	CB	PRO	L	113	0.352	35.152	108.274	1.00	16.83	L	C
ÁTOMO	882	CG	PRO	L	113	0.478	35.664	109.662	1.00	10.92	L	C
ÁTOMO	883	CD	PRO	L	113	1.853	36.298	109.688	1.00	17.62	L	C
ÁTOMO	884	N	THR	L	114	-0.511	36.947	105.679	1.00	21.82	L	N
ÁTOMO	885	CA	THR	L	114	-1.625	37.725	105.138	1.00	21.62	L	C
ÁTOMO	886	C	THR	L	114	-2.839	36.808	105.388	1.00	24.80	L	C
ÁTOMO	887	O	THR	L	114	-2.946	35.714	104.786	1.00	25.84	L	O
ÁTOMO	888	CB	THR	L	114	-1.439	37.955	103.644	1.00	24.03	L	C
ÁTOMO	889	OG1	THR	L	114	-0.309	38.827	103.460	1.00	25.12	L	O
ÁTOMO	890	CG2	THR	L	114	-2.655	38.604	103.050	1.00	15.64	L	C
ÁTOMO	891	N	VAL	L	115	-3.752	37.263	106.255	1.00	22.00	L	N
ÁTOMO	892	CA	VAL	L	115	-4.897	36.423	106.654	1.00	21.60	L	C
ÁTOMO	893	C	VAL	L	115	-6.170	36.850	105.944	1.00	23.51	L	C
ÁTOMO	894	O	VAL	L	115	-6.455	38.053	105.906	1.00	22.67	L	O
ÁTOMO	895	CB	VAL	L	115	-5.104	36.543	108.159	1.00	18.30	L	C
ÁTOMO	896	CG1	VAL	L	115	-6.171	35.567	108.620	1.00	18.51	L	C
ÁTOMO	897	CG2	VAL	L	115	-3.743	36.262	108.930	1.00	15.64	L	C
ÁTOMO	898	N	SER	L	116	-6.920	35.878	105.413	1.00	21.18	L	N
ÁTOMO	898	N	SER	L	116	-6.920	35.878	105.413	1.00	21.18	L	N
ÁTOMO	899	CA	SER	L	116	-8.177	36.131	104.679	1.00	19.67	L	C
ÁTOMO	900	C	SER	L	116	-9.200	35.125	105.173	1.00	20.75	L	C

ÁTOMO	901	O	SER	L116	-8.878	33.963	105.281	1.00	19.14	L	O
ÁTOMO	902	CB	SER	L116	-8.003	35.930	103.162	1.00	16.47	L	C
ÁTOMO	903	OG	SER	L116	-6.991	36.777	102.687	1.00	31.49	L	O
ÁTOMO	904	N	ILE	L117	-10.438	35.565	105.478	1.00	18.42	L	N
ÁTOMO	905	CA	ILE	L117	-11.452	34.627	105.968	1.00	19.19	L	C
ÁTOMO	906	C	ILE	L117	-12.594	34.564	104.970	1.00	18.21	L	C
ÁTOMO	907	O	ILE	L117	-12.884	35.572	104.306	1.00	19.48	L	O
ÁTOMO	908	CB	ILE	L117	-11.980	35.028	107.384	1.00	20.88	L	C
ÁTOMO	909	CG1	ILE	L117	-12.950	33.964	107.891	1.00	16.18	L	C
ÁTOMO	910	CG2	ILE	L117	-12.633	36.421	107.356	1.00	21.53	L	C
ÁTOMO	911	CD1	ILE	L117	-13.317	34.197	109.365	1.00	21.53	L	C
ÁTOMO	912	N	PHE	L118	-13.211	33.383	104.839	1.00	16.84	L	N
ÁTOMO	913	CA	PHE	L118	-14.262	33.214	103.861	1.00	14.96	L	C
ÁTOMO	914	C	PHE	L118	-15.490	32.512	104.373	1.00	19.74	L	C
ÁTOMO	915	O	PHE	L118	-15.406	31.427	104.918	1.00	24.08	L	O
ÁTOMO	916	CB	PHE	L118	-13.776	32.382	102.677	1.00	16.32	L	C
ÁTOMO	917	CG	PHE	L118	-12.558	32.927	102.032	1.00	19.49	L	C
ÁTOMO	918	CD1	PHE	L118	-11.308	32.634	102.550	1.00	23.15	L	C
ÁTOMO	919	CD2	PHE	L118	-12.653	33.805	100.964	1.00	16.22	L	C
ÁTOMO	920	CE1	PHE	L118	-10.145	33.225	102.011	1.00	27.60	L	C
ÁTOMO	921	CE2	PHE	L118	-11.486	34.395	100.420	1.00	18.98	L	C
ÁTOMO	922	CZ	PHE	L118	-10.252	34.104	100.948	1.00	19.75	L	C
ÁTOMO	923	N	PRO	L119	-16.671	33.102	104.161	1.00	24.09	L	N
ÁTOMO	924	CA	PRO	L119	-17.866	32.401	104.643	1.00	21.88	L	C
ÁTOMO	925	C	PRO	L119	-18.187	31.236	103.755	1.00	22.99	L	C
ÁTOMO	926	O	PRO	L119	-17.649	31.105	102.623	1.00	25.33	L	O
ÁTOMO	927	CB	PRO	L119	-18.993	33.441	104.512	1.00	21.57	L	C
ÁTOMO	928	CG	PRO	L119	-18.289	34.768	104.438	1.00	24.58	L	C
ÁTOMO	929	CD	PRO	L119	-16.957	34.496	103.742	1.00	23.46	L	C
ÁTOMO	930	N	PRO	L120	-19.111	30.375	104.207	1.00	24.97	L	N
ÁTOMO	931	CA	PRO	L120	-19.548	29.212	103.454	1.00	20.35	L	C
ÁTOMO	932	C	PRO	L120	-20.169	29.766	102.153	1.00	22.34	L	C
ÁTOMO	933	O	PRO	L120	-20.757	30.859	102.165	1.00	27.53	L	O
ÁTOMO	934	CB	PRO	L120	-20.626	28.590	104.336	1.00	21.43	L	C
ÁTOMO	935	CG	PRO	L120	-20.336	29.031	105.688	1.00	24.10	L	C
ÁTOMO	936	CD	PRO	L120	-19.783	30.455	105.534	1.00	26.50	L	C
ÁTOMO	937	N	SER	L121	-20.021	29.033	101.055	1.00	26.13	L	N
ÁTOMO	938	CA	SER	L121	-20.559	29.461	99.739	1.00	28.80	L	C
ÁTOMO	939	C	SER	L121	-22.061	29.144	99.748	1.00	30.89	L	C
ÁTOMO	940	O	SER	L121	-22.508	28.278	100.482	1.00	28.98	L	O
ÁTOMO	941	CB	SER	L121	-19.906	28.677	98.591	1.00	29.25	L	C
ÁTOMO	942	OG	SER	L121	-20.172	27.284	98.686	1.00	28.45	L	O
ÁTOMO	943	N	SER	L122	-22.831	29.855	98.916	1.00	33.37	L	N
ÁTOMO	944	CA	SER	L122	-24.266	29.605	98.862	1.00	34.56	L	C
ÁTOMO	945	C	SER	L122	-24.432	28.194	98.360	1.00	30.86	L	C
ÁTOMO	946	O	SER	L122	-25.288	27.470	98.811	1.00	31.28	L	O
ÁTOMO	947	CB	SER	L122	-24.935	30.594	97.903	1.00	36.90	L	C
ÁTOMO	948	OG	SER	L122	-24.460	30.376	96.600	1.00	48.86	L	O
ÁTOMO	949	N	GLU	L123	-23.571	27.776	97.436	1.00	28.18	L	N
ÁTOMO	950	CA	GLU	L123	-23.659	26.408	96.936	1.00	33.35	L	C
ÁTOMO	951	C	GLU	L123	-23.564	25.357	98.042	1.00	30.77	L	C
ÁTOMO	952	O	GLU	L123	-24.316	24.377	98.049	1.00	28.32	L	O
ÁTOMO	953	CB	GLU	L123	-22.554	26.177	95.913	1.00	35.48	L	C
ÁTOMO	954	CG	GLU	L123	-22.812	26.923	94.643	1.00	49.39	L	C
ÁTOMO	955	CD	GLU	L123	-22.019	28.188	94.524	1.00	60.63	L	C
ÁTOMO	956	OE1	GLU	L123	-22.009	28.966	95.522	1.00	60.83	L	O
ÁTOMO	957	OE2	GLU	L123	-21.405	28.378	93.434	1.00	60.19	L	O
ÁTOMO	958	N	GLN	L124	-22.619	25.533	98.978	1.00	30.73	L	N
ÁTOMO	959	CA	GLN	L124	-22.495	24.539	100.046	1.00	27.46	L	C

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ÁTOMO	960	C	GLN	L	124	-23.678	24.587	101.005	1.00	25.19	L C
ÁTOMO	961	O	GLN	L	124	-24.172	23.547	101.459	1.00	25.43	L O
ÁTOMO	962	CB	GLN	L	124	-21.142	24.693	100.827	1.00	28.38	L C
ÁTOMO	963	CG	GLN	L	124	-21.002	23.700	101.992	1.00	17.62	L C
ÁTOMO	964	CD	GLN	L	124	-19.695	23.785	102.732	1.00	19.12	L C
ÁTOMO	965	OE1	GLN	L	124	-19.129	24.872	102.862	1.00	20.58	L O
ÁTOMO	966	NE2	GLN	L	124	-19.218	22.628	103.260	1.00	14.19	L N
ÁTOMO	967	N	LEU	L	125	-24.128	25.781	101.331	1.00	23.58	L N
ÁTOMO	968	CA	LEU	L	125	-25.255	25.923	102.246	1.00	26.99	L C
ÁTOMO	969	C	LEU	L	125	-26.482	25.150	101.714	1.00	31.07	L C
ÁTOMO	970	O	LEU	L	125	-27.160	24.439	102.467	1.00	31.01	L O
ÁTOMO	971	CB	LEU	L	125	-25.574	27.404	102.442	1.00	21.80	L C
ÁTOMO	972	CG	LEU	L	125	-24.497	28.130	103.268	1.00	26.32	L C
ÁTOMO	973	CD1	LEU	L	125	-24.696	29.650	103.236	1.00	8.36	L C
ÁTOMO	974	CD2	LEU	L	125	-24.556	27.611	104.698	1.00	20.84	L C
ÁTOMO	975	N	THR	L	126	-26.753	25.264	100.424	1.00	33.07	L N
ÁTOMO	976	CA	THR	L	126	-27.880	24.508	99.876	1.00	35.65	L C
ÁTOMO	977	C	THR	L	126	-27.736	22.993	100.109	1.00	38.92	L C
ÁTOMO	978	O	THR	L	126	-28.733	22.282	100.041	1.00	45.16	L O
ÁTOMO	979	CB	THR	L	126	-28.021	24.678	98.376	1.00	37.07	L C
ÁTOMO	980	OG1	THR	L	126	-26.987	23.913	97.745	1.00	49.44	L O
ÁTOMO	981	CG2	THR	L	126	-27.929	26.170	97.960	1.00	27.81	L C
ÁTOMO	982	N	SER	L	127	-26.517	22.483	100.366	1.00	38.10	L N
ÁTOMO	983	CA	SER	L	127	-26.319	21.040	100.592	1.00	34.68	L C
ÁTOMO	984	C	SER	L	127	-26.420	20.705	102.055	1.00	34.07	L C
ÁTOMO	985	O	SER	L	127	-26.321	19.533	102.478	1.00	39.83	L O
ÁTOMO	986	CB	SER	L	127	-24.949	20.596	100.094	1.00	34.83	L C
ÁTOMO	987	OG	SER	L	127	-24.807	20.845	98.713	1.00	44.79	L O
ÁTOMO	988	N	GLY	L	128	-26.596	21.730	102.855	1.00	29.72	L N
ÁTOMO	989	CA	GLY	L	128	-26.717	21.469	104.259	1.00	34.23	L C
ÁTOMO	990	C	GLY	L	128	-25.440	21.697	105.030	1.00	36.19	L C
ÁTOMO	991	O	GLY	L	128	-25.456	21.612	106.264	1.00	40.26	L O
ÁTOMO	992	N	GLY	L	129	-24.353	22.020	104.326	1.00	33.03	L N
ÁTOMO	993	CA	GLY	L	129	-23.092	22.207	105.009	1.00	31.52	L C
ÁTOMO	994	C	GLY	L	129	-22.632	23.635	105.101	1.00	30.69	L C
ÁTOMO	995	O	GLY	L	129	-23.196	24.524	104.453	1.00	28.36	L O
ÁTOMO	996	N	ALA	L	130	-21.609	23.859	105.927	1.00	29.57	L N
ÁTOMO	997	CA	ALA	L	130	-21.095	25.205	106.141	1.00	29.07	L C
ÁTOMO	998	C	ALA	L	130	-19.650	25.164	106.583	1.00	27.65	L C
ÁTOMO	999	O	ALA	L	130	-19.376	25.016	107.771	1.00	32.06	L O
ÁTOMO	1000	CB	ALA	L	130	-21.909	25.940	107.211	1.00	25.02	L C
ÁTOMO	1001	N	SER	L	131	-18.732	25.329	105.635	1.00	26.55	L N
ÁTOMO	1002	CA	SER	L	131	-17.320	25.336	105.998	1.00	23.33	L C
ÁTOMO	1003	C	SER	L	131	-16.890	26.778	105.924	1.00	23.98	L C
ÁTOMO	1004	O	SER	L	131	-17.229	27.504	104.948	1.00	27.26	L O
ÁTOMO	1005	CB	SER	L	131	-16.504	24.489	105.005	1.00	18.37	L C
ÁTOMO	1006	OG	SER	L	131	-16.912	23.139	105.001	1.00	24.81	L O
ÁTOMO	1007	N	VAL	L	132	-16.156	27.213	106.955	1.00	20.02	L N
ÁTOMO	1008	CA	VAL	L	132	-15.639	28.556	107.035	1.00	22.56	L C
ÁTOMO	1009	C	VAL	L	132	-14.114	28.368	106.824	1.00	19.29	L C
ÁTOMO	1010	O	VAL	L	132	-13.500	27.522	107.500	1.00	17.72	L O
ÁTOMO	1011	CB	VAL	L	132	-15.862	29.175	108.417	1.00	23.70	L C
ÁTOMO	1012	CG1	VAL	L	132	-15.461	30.666	108.372	1.00	19.40	L C
ÁTOMO	1013	CG2	VAL	L	132	-17.369	29.077	108.816	1.00	21.15	L C
ÁTOMO	1014	N	VAL	L	133	-13.531	29.141	105.914	1.00	18.23	L N
ÁTOMO	1015	CA	VAL	L	133	-12.110	28.959	105.581	1.00	16.84	L C
ÁTOMO	1016	C	VAL	L	133	-11.267	30.201	105.870	1.00	16.55	L C
ÁTOMO	1017	O	VAL	L	133	-11.670	31.324	105.686	1.00	13.84	L O
ÁTOMO	1018	CB	VAL	L	133	-11.935	28.585	104.057	1.00	16.50	L C

ÁTOMO	1019	CG1	VAL	L	133	-10.401	28.419	103.741	1.00	12.48	L	C
ÁTOMO	1020	CG2	VAL	L	133	-12.729	27.202	103.710	1.00	11.93	L	C
ÁTOMO	1021	N	CYS	L	134	-10.052	29.967	106.318	1.00	16.38	L	N
ÁTOMO	1022	CA	CYS	L	134	-9.164	31.037	106.605	1.00	17.53	L	C
ÁTOMO	1023	C	CYS	L	134	-7.833	30.655	105.938	1.00	16.58	L	C
ÁTOMO	1024	O	CYS	L	134	-7.335	29.561	106.204	1.00	14.98	L	O
ÁTOMO	1025	CB	CYS	L	134	-8.948	31.072	108.108	1.00	16.98	L	C
ÁTOMO	1026	SG	CYS	L	134	-7.928	32.442	108.627	1.00	39.38	L	S
ÁTOMO	1027	N	PHE	L	135	-7.314	31.512	105.063	1.00	15.50	L	N
ÁTOMO	1028	CA	PHE	L	135	-5.972	31.311	104.479	1.00	15.01	L	C
ÁTOMO	1029	C	PHE	L	135	-5.009	32.262	105.236	1.00	17.04	L	C
ÁTOMO	1030	O	PHE	L	135	-5.343	33.413	105.482	1.00	18.37	L	O
ÁTOMO	1031	CB	PHE	L	135	-5.953	31.730	102.997	1.00	15.31	L	C
ÁTOMO	1032	CG	PHE	L	135	-6.719	30.784	102.083	1.00	12.44	L	C
ÁTOMO	1033	CD1	PHE	L	135	-6.530	29.429	102.170	1.00	12.71	L	C
ÁTOMO	1034	CD2	PHE	L	135	-7.604	31.263	101.147	1.00	14.37	L	C
ÁTOMO	1035	CE1	PHE	L	135	-7.221	28.534	101.341	1.00	16.73	L	C
ÁTOMO	1036	CE2	PHE	L	135	-8.312	30.383	100.294	1.00	19.45	L	C
ÁTOMO	1037	CZ	PHE	L	135	-8.121	29.008	100.399	1.00	21.66	L	C
ÁTOMO	1038	N	LEU	L	136	-3.795	31.794	105.502	1.00	18.77	L	N
ÁTOMO	1039	CA	LEU	L	136	-2.784	32.558	106.211	1.00	17.29	L	C
ÁTOMO	1040	C	LEU	L	136	-1.633	32.347	105.252	1.00	18.03	L	C
ÁTOMO	1041	O	LEU	L	136	-1.013	31.271	105.214	1.00	20.82	L	O
ÁTOMO	1042	CB	LEU	L	136	-2.528	31.937	107.580	1.00	15.90	L	C
ÁTOMO	1043	CG	LEU	L	136	-3.800	31.929	108.451	1.00	17.81	L	C
ÁTOMO	1044	CD1	LEU	L	136	-4.513	30.583	108.271	1.00	28.80	L	C
ÁTOMO	1045	CD2	LEU	L	136	-3.447	32.085	109.904	1.00	11.22	L	C
ÁTOMO	1046	N	ASN	L	137	-1.385	33.363	104.444	1.00	15.37	L	N
ÁTOMO	1047	CA	ASN	L	137	-0.421	33.204	103.397	1.00	15.78	L	C
ÁTOMO	1048	C	ASN	L	137	0.894	33.961	103.467	1.00	20.96	L	C
ÁTOMO	1049	O	ASN	L	137	0.972	35.032	104.011	1.00	24.05	L	O
ÁTOMO	1050	CB	ASN	L	137	-1.084	33.523	102.061	1.00	14.26	L	C
ÁTOMO	1051	CG	ASN	L	137	-2.092	32.423	101.574	1.00	15.09	L	C
ÁTOMO	1052	OD1	ASN	L	137	-2.866	32.668	100.681	1.00	27.52	L	O
ÁTOMO	1053	ND2	ASN	L	137	-2.097	31.263	102.196	1.00	22.74	L	N
ÁTOMO	1054	N	ASN	L	138	1.932	33.348	102.874	1.00	22.98	L	N
ÁTOMO	1055	CA	ASN	L	138	3.265	33.911	102.768	1.00	19.90	L	C
ÁTOMO	1056	C	ASN	L	138	3.928	34.495	104.025	1.00	21.41	L	C
ÁTOMO	1057	O	ASN	L	138	4.332	35.646	104.061	1.00	20.42	L	O
ÁTOMO	1058	CB	ASN	L	138	3.237	34.913	101.603	1.00	17.25	L	C
ÁTOMO	1059	CG	ASN	L	138	2.971	34.225	100.280	1.00	21.54	L	C
ÁTOMO	1060	OD1	ASN	L	138	1.863	33.812	100.006	1.00	29.62	L	O
ÁTOMO	1061	ND2	ASN	L	138	4.008	34.077	99.461	1.00	31.95	L	N
ÁTOMO	1062	N	PHE	L	139	4.073	33.665	105.062	1.00	20.62	L	N
ÁTOMO	1063	CA	PHE	L	139	4.691	34.064	106.294	1.00	18.04	L	C
ÁTOMO	1064	C	PHE	L	139	6.009	33.355	106.496	1.00	18.28	L	C
ÁTOMO	1065	O	PHE	L	139	6.316	32.417	105.788	1.00	20.30	L	O
ÁTOMO	1066	CB	PHE	L	139	3.727	33.800	107.512	1.00	18.19	L	C
ÁTOMO	1067	CG	PHE	L	139	3.218	32.377	107.633	1.00	20.48	L	C
ÁTOMO	1068	CD1	PHE	L	139	3.931	31.434	108.325	1.00	17.93	L	C
ÁTOMO	1069	CD2	PHE	L	139	2.004	32.004	107.061	1.00	17.24	L	C
ÁTOMO	1070	CE1	PHE	L	139	3.490	30.139	108.459	1.00	11.11	L	C
ÁTOMO	1071	CE2	PHE	L	139	1.530	30.697	107.197	1.00	16.66	L	C
ÁTOMO	1072	CZ	PHE	L	139	2.278	29.753	107.894	1.00	18.89	L	C
ÁTOMO	1073	N	TYR	L	140	6.803	33.847	107.430	1.00	21.00	L	N
ÁTOMO	1074	CA	TYR	L	140	8.085	33.240	107.797	1.00	20.95	L	C
ÁTOMO	1075	C	TYR	L	140	8.437	33.747	109.186	1.00	22.51	L	C
ÁTOMO	1076	O	TYR	L	140	8.305	34.940	109.476	1.00	21.26	L	O
ÁTOMO	1077	CB	TYR	L	140	9.215	33.612	106.810	1.00	20.12	L	C

ÁTOMO	1078	CG	TYR L	140	10.461	32.818	107.134	1.00	21.24	L	C
ÁTOMO	1079	CD1	TYR L	140	11.314	33.233	108.144	1.00	11.93	L	C
ÁTOMO	1080	CD2	TYR L	140	10.719	31.607	106.502	1.00	19.61	L	C
ÁTOMO	1081	CE1	TYR L	140	12.376	32.481	108.535	1.00	12.05	L	C
ÁTOMO	1082	CE2	TYR L	140	11.797	30.823	106.901	1.00	11.86	L	C
ÁTOMO	1083	CZ	TYR L	140	12.615	31.290	107.930	1.00	16.01	L	C
ÁTOMO	1084	OH	TYR L	140	13.684	30.527	108.384	1.00	20.60	L	O
ÁTOMO	1085	N	PRO L	141	8.867	32.855	110.084	1.00	22.91	L	N
ÁTOMO	1086	CA	PRO L	141	9.072	31.399	109.974	1.00	23.17	L	C
ÁTOMO	1087	C	PRO L	141	7.800	30.595	109.882	1.00	22.64	L	C
ÁTOMO	1088	O	PRO L	141	6.705	31.153	109.928	1.00	22.66	L	O
ÁTOMO	1089	CB	PRO L	141	9.887	31.054	111.227	1.00	22.87	L	C
ÁTOMO	1090	CG	PRO L	141	9.422	32.054	112.197	1.00	25.55	L	C
ÁTOMO	1091	CD	PRO L	141	9.306	33.344	111.403	1.00	21.81	L	C
ÁTOMO	1092	N	LYS L	142	7.957	29.281	109.762	1.00	22.22	L	N
ÁTOMO	1093	CA	LYS L	142	6.803	28.390	109.525	1.00	22.07	L	C
ÁTOMO	1094	C	LYS L	142	5.852	28.206	110.707	1.00	20.25	L	C
ÁTOMO	1095	O	LYS L	142	4.730	27.743	110.528	1.00	19.43	L	O
ÁTOMO	1096	CB	LYS L	142	7.291	27.011	109.176	1.00	24.45	L	C
ÁTOMO	1097	CG	LYS L	142	7.871	26.341	110.401	1.00	30.59	L	C
ÁTOMO	1098	CD	LYS L	142	8.364	24.905	110.124	1.00	38.68	L	C
ÁTOMO	1099	CE	LYS L	142	9.132	24.425	111.369	1.00	47.96	L	C
ÁTOMO	1100	NZ	LYS L	142	9.840	23.118	111.175	1.00	68.01	L	N
ÁTOMO	1101	N	ASP L	143	6.286	28.540	111.908	1.00	22.51	L	N
ÁTOMO	1102	CA	ASP L	143	5.391	28.282	113.048	1.00	20.75	L	C
ÁTOMO	1103	C	ASP L	143	4.215	29.252	113.125	1.00	23.08	L	C
ÁTOMO	1104	O	ASP L	143	4.351	30.472	113.035	1.00	24.43	L	O
ÁTOMO	1105	CB	ASP L	143	6.192	28.301	114.353	1.00	19.86	L	C
ÁTOMO	1106	CG	ASP L	143	7.574	27.689	114.178	1.00	27.47	L	C
ÁTOMO	1107	OD1	ASP L	143	8.549	28.452	113.962	1.00	27.50	L	O
ÁTOMO	1108	OD2	ASP L	143	7.660	26.448	114.240	1.00	35.11	L	O
ÁTOMO	1109	N	ILE L	144	3.018	28.699	113.301	1.00	22.13	L	N
ÁTOMO	1110	CA	ILE L	144	1.855	29.567	113.387	1.00	21.65	L	C
ÁTOMO	1111	C	ILE L	144	0.733	28.773	114.084	1.00	22.39	L	C
ÁTOMO	1112	O	ILE L	144	0.724	27.530	114.087	1.00	25.88	L	O
ÁTOMO	1113	CB	ILE L	144	1.448	29.993	111.951	1.00	23.73	L	C
ÁTOMO	1114	CG1	ILE L	144	0.456	31.143	111.976	1.00	20.91	L	C
ÁTOMO	1115	CG2	ILE L	144	0.978	28.814	111.199	1.00	21.02	L	C
ÁTOMO	1116	CD1	ILE L	144	0.324	31.861	110.617	1.00	23.82	L	C
ÁTOMO	1117	N	ASN L	145	-0.164	29.493	114.744	1.00	23.50	L	N
ÁTOMO	1118	CA	ASN L	145	-1.252	28.793	115.442	1.00	29.06	L	C
ÁTOMO	1119	C	ASN L	145	-2.531	29.541	115.032	1.00	28.27	L	C
ÁTOMO	1120	O	ASN L	145	-2.530	30.760	114.907	1.00	29.90	L	O
ÁTOMO	1121	CB	ASN L	145	-1.031	28.854	116.956	1.00	31.88	L	C
ÁTOMO	1122	CG	ASN L	145	-1.901	27.857	117.722	1.00	50.47	L	C
ÁTOMO	1123	OD1	ASN L	145	-2.445	28.192	118.780	1.00	64.13	L	O
ÁTOMO	1124	ND2	ASN L	145	-2.029	26.627	117.201	1.00	46.82	L	N
ÁTOMO	1125	N	VAL L	146	-3.595	28.796	114.797	1.00	26.85	L	N
ÁTOMO	1126	CA	VAL L	146	-4.855	29.391	114.379	1.00	24.01	L	C
ÁTOMO	1127	C	VAL L	146	-5.892	28.978	115.396	1.00	21.85	L	C
ÁTOMO	1128	O	VAL L	146	-5.903	27.838	115.829	1.00	25.28	L	O
ÁTOMO	1129	CB	VAL L	146	-5.275	28.862	112.986	1.00	22.10	L	C
ÁTOMO	1130	CG1	VAL L	146	-6.686	29.332	112.602	1.00	20.92	L	C
ÁTOMO	1131	CG2	VAL L	146	-4.293	29.454	111.948	1.00	29.40	L	C
ÁTOMO	1132	N	LYS L	147	-6.713	29.932	115.788	1.00	20.98	L	N
ÁTOMO	1133	CA	LYS L	147	-7.780	29.647	116.732	1.00	23.41	L	C
ÁTOMO	1134	C	LYS L	147	-9.099	30.151	116.083	1.00	20.29	L	C
ÁTOMO	1135	O	LYS L	147	-9.153	31.253	115.542	1.00	17.79	L	O
ÁTOMO	1136	CB	LYS L	147	-7.504	30.402	118.034	1.00	19.81	L	C

ÁTOMO	1137	CG	LYS	L	147	-8.480	30.104	119.109	1.00	34.97	L	C
ÁTOMO	1138	CD	LYS	L	147	-8.242	31.037	120.294	1.00	50.25	L	C
ÁTOMO	1139	CE	LYS	L	147	-6.825	30.891	120.876	1.00	56.37	L	C
ÁTOMO	1140	NZ	LYS	L	147	-6.704	31.817	122.085	1.00	59.80	L	N
ÁTOMO	1141	N	TRP	L	148	-10.139	29.328	116.116	1.00	20.17	L	N
ÁTOMO	1142	CA	TRP	L	148	-11.445	29.785	115.629	1.00	18.95	L	C
ÁTOMO	1143	C	TRP	L	148	-12.362	30.181	116.806	1.00	21.21	L	C
ÁTOMO	1144	O	TRP	L	148	-12.325	29.559	117.838	1.00	20.59	L	O
ÁTOMO	1145	CB	TRP	L	148	-12.122	28.657	114.890	1.00	15.88	L	C
ÁTOMO	1146	CG	TRP	L	148	-11.490	28.422	113.546	1.00	21.74	L	C
ÁTOMO	1147	CD1	TRP	L	148	-10.513	27.487	113.208	1.00	16.65	L	C
ÁTOMO	1148	CD2	TRP	L	148	-11.855	29.085	112.337	1.00	22.15	L	C
ÁTOMO	1149	NE1	TRP	L	148	-10.281	27.540	111.832	1.00	22.24	L	N
ÁTOMO	1150	CE2	TRP	L	148	-11.087	28.513	111.284	1.00	21.65	L	C
ÁTOMO	1151	CE3	TRP	L	148	-12.756	30.111	112.040	1.00	14.25	L	C
ÁTOMO	1152	CZ2	TRP	L	148	-11.205	28.943	109.950	1.00	24.13	L	C
ÁTOMO	1153	CZ3	TRP	L	148	-12.884	30.542	110.716	1.00	20.29	L	C
ÁTOMO	1154	CH2	TRP	L	148	-12.106	29.955	109.676	1.00	19.03	L	C
ÁTOMO	1155	N	LYS	L	149	-13.174	31.215	116.623	1.00	22.89	L	N
ÁTOMO	1156	CA	LYS	L	149	-14.124	31.636	117.655	1.00	21.94	L	C
ÁTOMO	1157	C	LYS	L	149	-15.427	31.917	116.932	1.00	22.02	L	C
ÁTOMO	1158	O	LYS	L	149	-15.431	32.431	115.803	1.00	25.88	L	O
ÁTOMO	1159	CB	LYS	L	149	-13.675	32.909	118.375	1.00	22.50	L	C
ÁTOMO	1160	CG	LYS	L	149	-12.456	32.712	119.265	1.00	29.41	L	C
ÁTOMO	1161	CD	LYS	L	149	-11.972	34.038	119.890	1.00	36.17	L	C
ÁTOMO	1162	CE	LYS	L	149	-10.853	33.759	120.883	1.00	47.79	L	C
ÁTOMO	1163	NZ	LYS	L	149	-10.191	35.022	121.349	1.00	58.02	L	N
ÁTOMO	1164	N	ILE	L	150	-16.534	31.563	117.575	1.00	21.85	L	N
ÁTOMO	1165	CA	ILE	L	150	-17.842	31.808	116.995	1.00	19.42	L	C
ÁTOMO	1166	C	ILE	L	150	-18.603	32.519	118.121	1.00	20.57	L	C
ÁTOMO	1167	O	ILE	L	150	-18.735	31.982	119.232	1.00	22.05	L	O
ÁTOMO	1168	CB	ILE	L	150	-18.527	30.516	116.639	1.00	17.66	L	C
ÁTOMO	1169	CG1	ILE	L	150	-17.835	29.868	115.414	1.00	15.39	L	C
ÁTOMO	1170	CG2	ILE	L	150	-20.013	30.809	116.281	1.00	15.45	L	C
ÁTOMO	1171	CD1	ILE	L	150	-18.484	28.535	114.955	1.00	5.50	L	C
ÁTOMO	1172	N	ASP	L	151	-19.030	33.734	117.831	1.00	20.49	L	N
ÁTOMO	1173	CA	ASP	L	151	-19.715	34.559	118.815	1.00	20.94	L	C
ÁTOMO	1174	C	ASP	L	151	-18.815	34.701	120.052	1.00	24.12	L	C
ÁTOMO	1175	O	ASP	L	151	-19.304	34.789	121.189	1.00	24.25	L	O
ÁTOMO	1176	CB	ASP	L	151	-21.059	33.894	119.175	1.00	19.59	L	C
ÁTOMO	1177	CG	ASP	L	151	-22.132	34.129	118.102	1.00	25.62	L	C
ÁTOMO	1178	OD1	ASP	L	151	-21.968	35.055	117.272	1.00	27.32	L	O
ÁTOMO	1179	OD2	ASP	L	151	-23.152	33.416	118.110	1.00	31.24	L	O
ÁTOMO	1180	N	GLY	L	152	-17.493	34.685	119.850	1.00	19.02	L	N
ÁTOMO	1181	CA	GLY	L	152	-16.617	34.845	120.990	1.00	23.51	L	C
ÁTOMO	1182	C	GLY	L	152	-16.141	33.602	121.724	1.00	28.41	L	C
ÁTOMO	1183	O	GLY	L	152	-15.242	33.688	122.577	1.00	32.84	L	O
ÁTOMO	1184	N	SER	L	153	-16.732	32.458	121.438	1.00	28.85	L	N
ÁTOMO	1185	CA	SER	L	153	-16.307	31.209	122.065	1.00	29.03	L	C
ÁTOMO	1186	C	SER	L	153	-15.417	30.391	121.122	1.00	28.97	L	C
ÁTOMO	1187	O	SER	L	153	-15.757	30.161	119.960	1.00	26.39	L	O
ÁTOMO	1188	CB	SER	L	153	-17.505	30.360	122.471	1.00	25.23	L	C
ÁTOMO	1189	OG	SER	L	153	-18.196	31.006	123.519	1.00	30.72	L	O
ÁTOMO	1190	N	GLU	L	154	-14.283	29.942	121.643	1.00	28.12	L	N
ÁTOMO	1191	CA	GLU	L	154	-13.380	29.141	120.842	1.00	31.33	L	C
ÁTOMO	1192	C	GLU	L	154	-14.031	27.826	120.432	1.00	31.48	L	C
ÁTOMO	1193	O	GLU	L	154	-14.753	27.175	121.200	1.00	35.29	L	O
ÁTOMO	1194	CB	GLU	L	154	-12.091	28.879	121.635	1.00	32.78	L	C

ÁTOMO	1195	CG	GLU	L	154	-11.053	28.084	120.877	1.00	40.84	L C
ÁTOMO	1196	CD	GLU	L	154	-9.769	27.927	121.683	1.00	43.42	L C
ÁTOMO	1197	OE1	GLU	L	154	-9.576	28.679	122.656	1.00	47.11	L O
ÁTOMO	1198	OE2	GLU	L	154	-8.966	27.061	121.335	1.00	52.41	L O
ÁTOMO	1199	N	ARG	L	155	-13.793	27.435	119.196	1.00	28.45	L N
ÁTOMO	1200	CA	ARG	L	155	-14.309	26.189	118.675	1.00	30.91	L C
ÁTOMO	1201	C	ARG	L	155	-13.115	25.406	118.252	1.00	32.16	L C
ÁTOMO	1202	O	ARG	L	155	-12.374	25.876	117.405	1.00	32.66	L O
ÁTOMO	1203	CB	ARG	L	155	-15.183	26.419	117.448	1.00	28.52	L C
ÁTOMO	1204	CG	ARG	L	155	-16.380	27.231	117.799	1.00	37.92	L C
ÁTOMO	1205	CD	ARG	L	155	-17.336	26.438	118.698	1.00	31.38	L C
ÁTOMO	1206	NE	ARG	L	155	-18.612	27.118	118.747	1.00	33.65	L N
ÁTOMO	1207	CZ	ARG	L	155	-19.691	26.762	118.062	1.00	17.41	L C
ÁTOMO	1208	NH1	ARG	L	155	-19.685	25.711	117.260	1.00	27.68	L N
ÁTOMO	1209	NH2	ARG	L	155	-20.780	27.482	118.185	1.00	25.10	L N
ÁTOMO	1210	N	GLN	L	156	-12.935	24.221	118.829	1.00	34.52	L N
ÁTOMO	1211	CA	GLN	L	156	-11.788	23.395	118.478	1.00	35.80	L C
ÁTOMO	1212	C	GLN	L	156	-12.127	22.210	117.605	1.00	36.43	L C
ÁTOMO	1213	O	GLN	L	156	-11.293	21.749	116.805	1.00	39.56	L O
ÁTOMO	1214	CB	GLN	L	156	-11.078	22.906	119.743	1.00	33.20	L C
ÁTOMO	1215	CG	GLN	L	156	-10.673	24.010	120.664	1.00	47.03	L C
ÁTOMO	1216	CD	GLN	L	156	-9.873	23.502	121.845	1.00	57.66	L C
ÁTOMO	1217	OE1	GLN	L	156	-10.360	22.685	122.634	1.00	72.71	L O
ÁTOMO	1218	NE2	GLN	L	156	-8.643	23.981	121.977	1.00	63.16	L N
ÁTOMO	1219	N	ASN	L	157	-13.341	21.698	117.723	1.00	38.17	L N
ÁTOMO	1220	CA	ASN	L	157	-13.708	20.539	116.913	1.00	38.15	L C
ÁTOMO	1221	C	ASN	L	157	-14.121	20.890	115.474	1.00	35.01	L C
ÁTOMO	1222	O	ASN	L	157	-14.616	21.993	115.235	1.00	34.08	L O
ÁTOMO	1223	CB	ASN	L	157	-14.866	19.812	117.563	1.00	43.26	L C
ÁTOMO	1224	CG	ASN	L	157	-14.457	19.007	118.785	1.00	57.31	L C
ÁTOMO	1225	OD1	ASN	L	157	-15.297	18.309	119.355	1.00	74.40	L O
ÁTOMO	1226	ND2	ASN	L	157	-13.175	19.089	119.191	1.00	54.46	L N
ÁTOMO	1227	N	GLY	L	158	-13.987	19.922	114.559	1.00	32.01	L N
ÁTOMO	1228	CA	GLY	L	158	-14.353	20.118	113.154	1.00	26.62	L C
ÁTOMO	1229	C	GLY	L	158	-13.389	21.035	112.359	1.00	26.13	L C
ÁTOMO	1230	O	GLY	L	158	-13.795	21.668	111.391	1.00	26.96	L O
ÁTOMO	1231	N	VAL	L	159	-12.136	21.114	112.781	1.00	22.23	L N
ÁTOMO	1232	CA	VAL	L	159	-11.148	21.959	112.106	1.00	23.71	L C
ÁTOMO	1233	C	VAL	L	159	-10.165	21.101	111.316	1.00	25.37	L C
ÁTOMO	1234	O	VAL	L	159	-9.706	20.080	111.799	1.00	34.95	L O
ÁTOMO	1235	CB	VAL	L	159	-10.376	22.820	113.140	1.00	19.67	L C
ÁTOMO	1236	CG1	VAL	L	159	-9.279	23.655	112.436	1.00	26.30	L C
ÁTOMO	1237	CG2	VAL	L	159	-11.327	23.737	113.878	1.00	16.36	L C
ÁTOMO	1238	N	LEU	L	160	-9.892	21.467	110.073	1.00	29.08	L N
ÁTOMO	1239	CA	LEU	L	160	-8.948	20.728	109.219	1.00	29.44	L C
ÁTOMO	1240	C	LEU	L	160	-7.885	21.763	108.832	1.00	24.79	L C
ÁTOMO	1241	O	LEU	L	160	-8.238	22.824	108.320	1.00	25.27	L O
ÁTOMO	1242	CB	LEU	L	160	-9.658	20.233	107.946	1.00	29.93	L C
ÁTOMO	1243	CG	LEU	L	160	-8.866	19.400	106.916	1.00	41.02	L C
ÁTOMO	1244	CD1	LEU	L	160	-9.801	18.461	106.149	1.00	38.99	L C
ÁTOMO	1245	CD2	LEU	L	160	-8.126	20.321	105.949	1.00	53.32	L C
ÁTOMO	1246	N	ASN	L	161	-6.625	21.455	109.089	1.00	21.11	L N
ÁTOMO	1247	CA	ASN	L	161	-5.543	22.387	108.800	1.00	19.49	L C
ÁTOMO	1248	C	ASN	L	161	-4.602	21.752	107.801	1.00	18.69	L C
ÁTOMO	1249	O	ASN	L	161	-4.409	20.538	107.838	1.00	21.55	L O
ÁTOMO	1250	CB	ASN	L	161	-4.759	22.717	110.086	1.00	19.31	L C
ÁTOMO	1251	CG	ASN	L	161	-5.511	23.651	111.029	1.00	12.67	L C
ÁTOMO	1252	OD1	ASN	L	161	-6.298	24.476	110.607	1.00	21.51	L O

ÁTOMO	1253	ND2	ASN	L	161	-5.232	23.539	112.311	1.00	27.96	L	N
ÁTOMO	1254	N	SER	L	162	-4.045	22.557	106.886	1.00	17.66	L	N
ÁTOMO	1255	CA	SER	L	162	-3.099	22.029	105.898	1.00	20.32	L	C
ÁTOMO	1256	C	SER	L	162	-2.031	23.129	105.737	1.00	20.31	L	C
ÁTOMO	1257	O	SER	L	162	-2.347	24.344	105.761	1.00	20.48	L	O
ÁTOMO	1258	CB	SER	L	162	-3.766	21.771	104.569	1.00	19.36	L	C
ÁTOMO	1259	OG	SER	L	162	-2.842	21.096	103.721	1.00	30.64	L	O
ÁTOMO	1260	N	TRP	L	163	-0.776	22.711	105.539	1.00	22.96	L	N
ÁTOMO	1261	CA	TRP	L	163	0.320	23.662	105.444	1.00	17.20	L	C
ÁTOMO	1262	C	TRP	L	163	1.127	23.380	104.181	1.00	16.75	L	C
ÁTOMO	1263	O	TRP	L	163	1.325	22.217	103.821	1.00	20.55	L	O
ÁTOMO	1264	CB	TRP	L	163	1.231	23.485	106.662	1.00	13.33	L	C
ÁTOMO	1265	CG	TRP	L	163	0.544	23.657	108.029	1.00	22.80	L	C
ÁTOMO	1266	CD1	TRP	L	163	0.495	24.786	108.763	1.00	19.32	L	C
ÁTOMO	1267	CD2	TRP	L	163	-0.167	22.651	108.791	1.00	26.71	L	C
ÁTOMO	1268	NE1	TRP	L	163	-0.199	24.560	109.945	1.00	30.77	L	N
ÁTOMO	1269	CE2	TRP	L	163	-0.614	23.259	109.977	1.00	26.86	L	C
ÁTOMO	1270	CE3	TRP	L	163	-0.463	21.302	108.575	1.00	32.13	L	C
ÁTOMO	1271	CZ2	TRP	L	163	-1.350	22.569	110.961	1.00	26.97	L	C
ÁTOMO	1272	CZ3	TRP	L	163	-1.199	20.595	109.565	1.00	31.68	L	C
ÁTOMO	1273	CH2	TRP	L	163	-1.629	21.243	110.738	1.00	37.55	L	C
ÁTOMO	1274	N	THR	L	164	1.600	24.416	103.506	1.00	19.49	L	N
ÁTOMO	1275	CA	THR	L	164	2.412	24.192	102.285	1.00	18.40	L	C
ÁTOMO	1276	C	THR	L	164	3.871	24.018	102.682	1.00	19.81	L	C
ÁTOMO	1277	O	THR	L	164	4.263	24.324	103.801	1.00	18.48	L	O
ÁTOMO	1278	CB	THR	L	164	2.367	25.378	101.286	1.00	16.10	L	C
ÁTOMO	1279	OG1	THR	L	164	2.767	26.598	101.961	1.00	22.69	L	O
ÁTOMO	1280	CG2	THR	L	164	0.978	25.562	100.694	1.00	20.82	L	C
ÁTOMO	1281	N	ASP	L	165	4.664	23.505	101.739	1.00	22.96	L	N
ÁTOMO	1282	CA	ASP	L	165	6.095	23.397	101.939	1.00	23.19	L	C
ÁTOMO	1283	C	ASP	L	165	6.590	24.820	101.584	1.00	18.88	L	C
ÁTOMO	1284	O	ASP	L	165	5.850	25.633	101.007	1.00	18.60	L	O
ÁTOMO	1285	CB	ASP	L	165	6.699	22.432	100.915	1.00	30.01	L	C
ÁTOMO	1286	CG	ASP	L	165	6.309	20.986	101.155	1.00	40.64	L	C
ÁTOMO	1287	OD1	ASP	L	165	5.882	20.384	100.158	1.00	52.97	L	O
ÁTOMO	1288	OD2	ASP	L	165	6.452	20.460	102.298	1.00	38.53	L	O
ÁTOMO	1289	N	GLN	L	166	7.848	25.089	101.885	1.00	13.81	L	N
ÁTOMO	1290	CA	GLN	L	166	8.415	26.424	101.625	1.00	12.21	L	C
ÁTOMO	1291	C	GLN	L	166	8.333	26.806	100.156	1.00	12.81	L	C
ÁTOMO	1292	O	GLN	L	166	8.604	26.014	99.290	1.00	16.65	L	O
ÁTOMO	1293	CB	GLN	L	166	9.845	26.458	102.164	1.00	12.35	L	C
ÁTOMO	1294	CG	GLN	L	166	10.442	27.875	102.139	1.00	12.75	L	C
ÁTOMO	1295	CD	GLN	L	166	11.704	27.936	102.959	1.00	16.64	L	C
ÁTOMO	1296	OE1	GLN	L	166	12.504	26.974	102.995	1.00	22.95	L	O
ÁTOMO	1297	NE2	GLN	L	166	11.900	29.050	103.628	1.00	15.16	L	N
ÁTOMO	1298	N	ASP	L	167	7.920	28.036	99.874	1.00	15.54	L	N
ÁTOMO	1299	CA	ASP	L	167	7.768	28.520	98.523	1.00	17.06	L	C
ÁTOMO	1300	C	ASP	L	167	9.168	28.649	97.864	1.00	17.69	L	C
ÁTOMO	1301	O	ASP	L	167	10.151	29.093	98.482	1.00	17.79	L	O
ÁTOMO	1302	CB	ASP	L	167	7.095	29.908	98.508	1.00	13.53	L	C
ÁTOMO	1303	CG	ASP	L	167	6.785	30.356	97.119	1.00	22.46	L	C
ÁTOMO	1304	OD1	ASP	L	167	5.750	29.917	96.602	1.00	24.43	L	O
ÁTOMO	1305	OD2	ASP	L	167	7.597	31.127	96.514	1.00	25.80	L	O
ÁTOMO	1306	N	SER	L	168	9.191	28.257	96.607	1.00	21.93	L	N
ÁTOMO	1307	CA	SER	L	168	10.385	28.290	95.761	1.00	24.57	L	C

ÁTOMO	1308	C	SER	L	168	10.858	29.659	95.322	1.00	23.47	L	C
ÁTOMO	1309	O	SER	L	168	11.999	29.782	94.879	1.00	25.30	L	O
ÁTOMO	1310	CB	SER	L	168	10.133	27.465	94.480	1.00	17.84	L	C
ÁTOMO	1311	OG	SER	L	168	10.011	26.117	94.892	1.00	38.05	L	O
ÁTOMO	1312	N	LYS	L	169	10.005	30.657	95.398	1.00	20.49	L	N
ÁTOMO	1313	CA	LYS	L	169	10.397	31.989	94.958	1.00	19.32	L	C
ÁTOMO	1314	C	LYS	L	169	10.616	32.922	96.114	1.00	20.10	L	C
ÁTOMO	1315	O	LYS	L	169	11.610	33.623	96.145	1.00	19.99	L	O
ÁTOMO	1316	CB	LYS	L	169	9.319	32.574	94.021	1.00	21.29	L	C
ÁTOMO	1317	CG	LYS	L	169	9.239	31.821	92.667	1.00	30.17	L	C
ÁTOMO	1318	CD	LYS	L	169	8.116	32.333	91.773	1.00	44.01	L	C
ÁTOMO	1319	CE	LYS	L	169	8.244	31.763	90.356	1.00	57.38	L	C
ÁTOMO	1320	NZ	LYS	L	169	7.258	32.403	89.414	1.00	70.77	L	N
ÁTOMO	1321	N	ASP	L	170	9.699	32.972	97.083	1.00	23.16	L	N
ÁTOMO	1322	CA	ASP	L	170	9.915	33.914	98.176	1.00	20.43	L	C
ÁTOMO	1323	C	ASP	L	170	10.240	33.309	99.528	1.00	22.49	L	C
ÁTOMO	1324	O	ASP	L	170	10.345	34.018	100.535	1.00	24.06	L	O
ÁTOMO	1325	CB	ASP	L	170	8.719	34.874	98.269	1.00	23.52	L	C
ÁTOMO	1326	CG	ASP	L	170	7.420	34.180	98.769	1.00	28.59	L	C
ÁTOMO	1327	OD1	ASP	L	170	7.457	33.006	99.213	1.00	28.25	L	O
ÁTOMO	1328	OD2	ASP	L	170	6.362	34.859	98.753	1.00	32.02	L	O
ÁTOMO	1329	N	SER	L	171	10.437	31.980	99.555	1.00	22.30	L	N
ÁTOMO	1330	CA	SER	L	171	10.854	31.272	100.771	1.00	19.54	L	C
ÁTOMO	1331	C	SER	L	171	9.905	31.416	101.967	1.00	18.91	L	C
ÁTOMO	1332	O	SER	L	171	10.332	31.277	103.131	1.00	20.84	L	O
ÁTOMO	1333	CB	SER	L	171	12.260	31.715	101.193	1.00	16.86	L	C
ÁTOMO	1334	OG	SER	L	171	13.092	31.639	100.049	1.00	22.64	L	O
ÁTOMO	1335	N	THR	L	172	8.629	31.627	101.661	1.00	17.19	L	N
ÁTOMO	1336	CA	THR	L	172	7.634	31.745	102.747	1.00	17.27	L	C
ÁTOMO	1337	C	THR	L	172	6.824	30.428	102.837	1.00	15.12	L	C
ÁTOMO	1338	O	THR	L	172	6.950	29.534	101.988	1.00	13.25	L	O
ÁTOMO	1339	CB	THR	L	172	6.619	32.896	102.488	1.00	15.96	L	C
ÁTOMO	1340	OG1	THR	L	172	5.904	32.660	101.251	1.00	24.29	L	O
ÁTOMO	1341	CG2	THR	L	172	7.382	34.278	102.381	1.00	10.43	L	C
ÁTOMO	1342	N	TYR	L	173	5.959	30.374	103.849	1.00	14.89	L	N
ÁTOMO	1343	CA	TYR	L	173	5.091	29.260	104.100	1.00	13.98	L	C
ÁTOMO	1344	C	TYR	L	173	3.666	29.799	104.107	1.00	15.99	L	C
ÁTOMO	1345	O	TYR	L	173	3.442	31.018	104.327	1.00	11.83	L	O
ÁTOMO	1346	CB	TYR	L	173	5.366	28.683	105.488	1.00	12.06	L	C
ÁTOMO	1347	CG	TYR	L	173	6.732	28.076	105.588	1.00	19.95	L	C
ÁTOMO	1348	CD1	TYR	L	173	7.827	28.832	106.026	1.00	18.44	L	C
ÁTOMO	1349	CD2	TYR	L	173	6.937	26.749	105.215	1.00	22.63	L	C
ÁTOMO	1350	CE1	TYR	L	173	9.092	28.269	106.067	1.00	28.53	L	C
ÁTOMO	1351	CE2	TYR	L	173	8.216	26.174	105.287	1.00	20.24	L	C
ÁTOMO	1352	CZ	TYR	L	173	9.276	26.951	105.713	1.00	20.82	L	C
ÁTOMO	1353	OH	TYR	L	173	10.530	26.361	105.841	1.00	31.88	L	O
ÁTOMO	1354	N	SER	L	174	2.706	28.892	103.891	1.00	17.08	L	N
ÁTOMO	1355	CA	SER	L	174	1.281	29.276	103.906	1.00	14.79	L	C
ÁTOMO	1356	C	SER	L	174	0.465	28.199	104.605	1.00	15.22	L	C
ÁTOMO	1357	O	SER	L	174	0.924	27.065	104.737	1.00	18.05	L	O
ÁTOMO	1358	CB	SER	L	174	0.770	29.443	102.491	1.00	16.51	L	C
ÁTOMO	1359	OG	SER	L	174	1.300	30.632	101.906	1.00	16.19	L	O
ÁTOMO	1360	N	MET	L	175	-0.753	28.535	105.046	1.00	16.19	L	N
ÁTOMO	1361	CA	MET	L	175	-1.562	27.533	105.762	1.00	13.01	L	C
ÁTOMO	1362	C	MET	L	175	-3.020	27.781	105.431	1.00	14.56	L	C
ÁTOMO	1363	O	MET	L	175	-3.417	28.949	105.198	1.00	17.50	L	O
ÁTOMO	1364	CB	MET	L	175	-1.381	27.711	107.296	1.00	13.61	L	C
ÁTOMO	1365	CG	MET	L	175	-2.422	26.930	108.210	1.00	11.50	L	C
ÁTOMO	1366	SD	MET	L	175	-2.089	27.301	109.942	1.00	19.84	L	S
ÁTOMO	1367	CE	MET	L	175	-3.279	26.117	110.822	1.00	19.37	L	C

ÁTOMO	1368	N	SER	L	176	-3.803	26.699	105.418	1.00	12.14	L	N
ÁTOMO	1369	CA	SER	L	176	-5.268	26.830	105.196	1.00	12.43	L	C
ÁTOMO	1370	C	SER	L	176	-5.934	26.202	106.436	1.00	14.52	L	C
ÁTOMO	1371	O	SER	L	176	-5.486	25.146	106.909	1.00	13.64	L	O
ÁTOMO	1372	CB	SER	L	176	-5.673	26.020	103.982	1.00	11.93	L	C
ÁTOMO	1373	OG	SER	L	176	-7.084	25.984	103.817	1.00	16.86	L	O
ÁTOMO	1374	N	SER	L	177	-6.986	26.818	106.972	1.00	14.35	L	N
ÁTOMO	1375	CA	SER	L	177	-7.641	26.170	108.128	1.00	14.38	L	C
ÁTOMO	1376	C	SER	L	177	-9.113	26.219	107.753	1.00	16.20	L	C
ÁTOMO	1377	O	SER	L	177	-9.583	27.279	107.371	1.00	19.72	L	O
ÁTOMO	1378	CB	SER	L	177	-7.412	26.992	109.379	1.00	10.63	L	C
ÁTOMO	1379	OG	SER	L	177	-7.994	26.377	110.518	1.00	18.28	L	O
ÁTOMO	1380	N	THR	L	178	-9.823	25.089	107.862	1.00	18.72	L	N
ÁTOMO	1381	CA	THR	L	178	-11.227	25.063	107.512	1.00	19.80	L	C
ÁTOMO	1382	C	THR	L	178	-12.029	24.577	108.721	1.00	19.45	L	C
ÁTOMO	1383	O	THR	L	178	-11.728	23.487	109.262	1.00	19.44	L	O
ÁTOMO	1384	CB	THR	L	178	-11.483	24.064	106.371	1.00	17.81	L	C
ÁTOMO	1385	OG1	THR	L	178	-10.737	24.443	105.195	1.00	20.86	L	O
ÁTOMO	1386	CG2	THR	L	178	-12.952	24.049	106.014	1.00	20.63	L	C
ÁTOMO	1387	N	LEU	L	179	-13.001	25.380	109.168	1.00	16.56	L	N
ÁTOMO	1388	CA	LEU	L	179	-13.874	24.958	110.279	1.00	19.50	L	C
ÁTOMO	1389	C	LEU	L	179	-15.197	24.470	109.628	1.00	19.78	L	C
ÁTOMO	1390	O	LEU	L	179	-15.884	25.243	108.957	1.00	19.68	L	O
ÁTOMO	1391	CB	LEU	L	179	-14.157	26.132	111.207	1.00	18.74	L	C
ÁTOMO	1392	CG	LEU	L	179	-15.233	25.971	112.315	1.00	19.17	L	C
ÁTOMO	1393	CD1	LEU	L	179	-14.778	24.899	113.287	1.00	22.85	L	C
ÁTOMO	1394	CD2	LEU	L	179	-15.411	27.330	113.049	1.00	13.61	L	C
ÁTOMO	1395	N	THR	L	180	-15.558	23.209	109.836	1.00	16.39	L	N
ÁTOMO	1396	CA	THR	L	180	-16.778	22.728	109.226	1.00	22.47	L	C
ÁTOMO	1397	C	THR	L	180	-17.911	22.551	110.243	1.00	22.40	L	C
ÁTOMO	1398	O	THR	L	180	-17.733	22.007	111.335	1.00	22.24	L	O
ÁTOMO	1399	CB	THR	L	180	-16.510	21.437	108.450	1.00	24.69	L	C
ÁTOMO	1400	OG1	THR	L	180	-15.554	21.720	107.419	1.00	28.70	L	O
ÁTOMO	1401	CG2	THR	L	180	-17.819	20.902	107.799	1.00	25.60	L	C
ÁTOMO	1402	N	LEU	L	181	-19.061	23.109	109.883	1.00	25.76	L	N
ÁTOMO	1403	CA	LEU	L	181	-20.256	23.079	110.722	1.00	23.80	L	C
ÁTOMO	1404	C	LEU	L	181	-21.404	22.595	109.874	1.00	22.40	L	C
ÁTOMO	1405	O	LEU	L	181	-21.281	22.491	108.654	1.00	27.54	L	O
ÁTOMO	1406	CB	LEU	L	181	-20.618	24.486	111.158	1.00	20.99	L	C
ÁTOMO	1407	CG	LEU	L	181	-19.507	25.352	111.691	1.00	21.11	L	C
ÁTOMO	1408	CD1	LEU	L	181	-19.910	26.786	111.792	1.00	18.26	L	C
ÁTOMO	1409	CD2	LEU	L	181	-19.133	24.735	113.056	1.00	35.93	L	C
ÁTOMO	1410	N	THR	L	182	-22.537	22.342	110.524	1.00	21.49	L	N
ÁTOMO	1411	CA	THR	L	182	-23.734	21.983	109.771	1.00	21.66	L	C
ÁTOMO	1412	C	THR	L	182	-24.299	23.325	109.392	1.00	18.67	L	C
ÁTOMO	1413	O	THR	L	182	-23.964	24.340	110.009	1.00	17.07	L	O
ÁTOMO	1414	CB	THR	L	182	-24.819	21.226	110.648	1.00	20.54	L	C
ÁTOMO	1415	OG1	THR	L	182	-25.233	22.056	111.724	1.00	19.08	L	O
ÁTOMO	1416	CG2	THR	L	182	-24.250	19.974	111.210	1.00	19.23	L	C
ÁTOMO	1417	N	LYS	L	183	-25.161	23.332	108.377	1.00	22.53	L	N
ÁTOMO	1418	CA	LYS	L	183	-25.817	24.538	107.953	1.00	27.93	L	C
ÁTOMO	1419	C	LYS	L	183	-26.611	25.161	109.111	1.00	28.40	L	C
ÁTOMO	1420	O	LYS	L	183	-26.590	26.367	109.326	1.00	28.75	L	O
ÁTOMO	1421	CB	LYS	L	183	-26.777	24.222	106.814	1.00	24.85	L	C
ÁTOMO	1422	CG	LYS	L	183	-27.654	25.400	106.442	1.00	38.68	L	C
ÁTOMO	1423	CD	LYS	L	183	-28.739	24.912	105.465	1.00	51.46	L	C
ÁTOMO	1424	CE	LYS	L	183	-29.711	26.005	105.066	1.00	61.22	L	C
ÁTOMO	1425	NZ	LYS	L	183	-29.183	26.879	103.976	1.00	65.88	L	N
ÁTOMO	1426	N	ASP	L	184	-27.335	24.320	109.825	1.00	28.42	L	N

ÁTOMO	1427	CA	ASP	L	184	-28.132	24.787	110.967	1.00	30.29	L	C
ÁTOMO	1428	C	ASP	L	184	-27.275	25.431	112.047	1.00	27.78	L	C
ÁTOMO	1429	O	ASP	L	184	-27.641	26.480	112.605	1.00	26.36	L	O
ÁTOMO	1430	CB	ASP	L	184	-28.909	23.613	111.550	1.00	32.41	L	C
ÁTOMO	1431	CG	ASP	L	184	-30.029	23.164	110.615	1.00	47.03	L	C
ÁTOMO	1432	OD1	ASP	L	184	-30.432	23.971	109.744	1.00	50.38	L	O
ÁTOMO	1433	OD2	ASP	L	184	-30.492	22.017	110.752	1.00	57.39	L	O
ÁTOMO	1434	N	GLU	L	185	-26.126	24.823	112.341	1.00	26.34	L	N
ÁTOMO	1435	CA	GLU	L	185	-25.239	25.406	113.396	1.00	22.33	L	C
ÁTOMO	1436	C	GLU	L	185	-24.726	26.743	112.905	1.00	21.73	L	C
ÁTOMO	1437	O	GLU	L	185	-24.747	27.754	113.623	1.00	19.74	L	O
ÁTOMO	1438	CB	GLU	L	185	-24.076	24.429	113.729	1.00	22.69	L	C
ÁTOMO	1439	CG	GLU	L	185	-22.917	25.082	114.549	1.00	23.70	L	C
ÁTOMO	1440	CD	GLU	L	185	-23.294	25.438	116.017	1.00	24.94	L	C
ÁTOMO	1441	OE1	GLU	L	185	-24.490	25.392	116.384	1.00	27.91	L	O
ÁTOMO	1442	OE2	GLU	L	185	-22.395	25.779	116.802	1.00	27.17	L	O
ÁTOMO	1443	N	TYR	L	186	-24.296	26.772	111.637	1.00	20.59	L	N
ÁTOMO	1444	CA	TYR	L	186	-23.812	28.003	111.033	1.00	20.72	L	C
ÁTOMO	1445	C	TYR	L	186	-24.884	29.096	111.135	1.00	21.32	L	C
ÁTOMO	1446	O	TYR	L	186	-24.594	30.251	111.475	1.00	19.97	L	O
ÁTOMO	1447	CB	TYR	L	186	-23.443	27.769	109.565	1.00	21.88	L	C
ÁTOMO	1448	CG	TYR	L	186	-23.034	29.037	108.828	1.00	20.13	L	C
ÁTOMO	1449	CD1	TYR	L	186	-21.856	29.713	109.171	1.00	16.10	L	C
ÁTOMO	1450	CD2	TYR	L	186	-23.841	29.589	107.835	1.00	13.47	L	C
ÁTOMO	1451	CE1	TYR	L	186	-21.492	30.928	108.541	1.00	22.60	L	C
ÁTOMO	1452	CE2	TYR	L	186	-23.480	30.800	107.198	1.00	21.66	L	C
ÁTOMO	1453	CZ	TYR	L	186	-22.298	31.458	107.569	1.00	17.38	L	C
ÁTOMO	1454	OH	TYR	L	186	-21.907	32.657	107.007	1.00	26.12	L	O
ÁTOMO	1455	N	GLU	L	187	-26.145	28.732	110.882	1.00	26.58	L	N
ÁTOMO	1456	CA	GLU	L	187	-27.213	29.744	110.959	1.00	28.79	L	C
ÁTOMO	1457	C	GLU	L	187	-27.671	30.156	112.367	1.00	26.96	L	C
ÁTOMO	1458	O	GLU	L	187	-28.433	31.112	112.532	1.00	28.18	L	O
ÁTOMO	1459	CB	GLU	L	187	-28.403	29.304	110.087	1.00	29.15	L	C
ÁTOMO	1460	CG	GLU	L	187	-28.097	29.587	108.603	1.00	38.89	L	C
ÁTOMO	1461	CD	GLU	L	187	-29.007	28.858	107.603	1.00	54.73	L	C
ÁTOMO	1462	OE1	GLU	L	187	-28.892	29.178	106.397	1.00	54.75	L	O
ÁTOMO	1463	OE2	GLU	L	187	-29.806	27.966	107.994	1.00	57.19	L	O
ÁTOMO	1464	N	ARG	L	188	-27.167	29.462	113.385	1.00	25.60	L	N
ÁTOMO	1465	CA	ARG	L	188	-27.486	29.793	114.769	1.00	23.86	L	C
ÁTOMO	1466	C	ARG	L	188	-26.523	30.771	115.368	1.00	26.95	L	C
ÁTOMO	1467	O	ARG	L	188	-26.692	31.203	116.517	1.00	32.94	L	O
ÁTOMO	1468	CB	ARG	L	188	-27.455	28.527	115.636	1.00	25.29	L	C
ÁTOMO	1469	CG	ARG	L	188	-28.633	27.610	115.410	1.00	18.49	L	C
ÁTOMO	1470	CD	ARG	L	188	-28.685	26.568	116.464	1.00	20.66	L	C
ÁTOMO	1471	NE	ARG	L	188	-27.676	25.523	116.368	1.00	22.08	L	N
ÁTOMO	1472	CZ	ARG	L	188	-27.839	24.357	115.741	1.00	31.05	L	C
ÁTOMO	1473	NH1	ARG	L	188	-28.973	24.060	115.106	1.00	21.51	L	N
ÁTOMO	1474	NH2	ARG	L	188	-26.897	23.438	115.816	1.00	20.64	L	N
ÁTOMO	1475	N	HIS	L	189	-25.492	31.149	114.613	1.00	27.14	L	N
ÁTOMO	1476	-CA	HIS	L	189	-24.505	32.053	115.171	1.00	23.85	L	C
ÁTOMO	1477	C	HIS	L	189	-24.228	33.199	114.218	1.00	24.26	L	C
ÁTOMO	1478	O	HIS	L	189	-24.560	33.131	113.040	1.00	20.63	L	O
ÁTOMO	1479	'CB	HIS	L	189	-23.256	31.239	115.485	1.00	21.82	L	C
ÁTOMO	1480	CG	HIS	L	189	-23.474	30.234	116.589	1.00	23.43	L	C
ÁTOMO	1481	ND1	HIS	L	189	-23.498	30.610	117.912	1.00	18.19	L	N
ÁTOMO	1482	CD2	HIS	L	189	-23.717	28.904	116.570	1.00	16.28	L	C
ÁTOMO	1483	CE1	HIS	L	189	-23.754	29.561	118.670	1.00	13.06	L	C
ÁTOMO	1484	NE2	HIS	L	189	-23.897	28.504	117.885	1.00	15.13	L	N
ÁTOMO	1485	N	ASN	L	190	-23.636	34.250	114.735	1.00	24.89	L	N

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ÁTOMO	1486	CA	ASN	L	190	-23.396	35.390	113.884	1.00	26.57	L	C
ÁTOMO	1487	C	ASN	L	190	-21.949	35.834	113.572	1.00	25.07	L	C
ÁTOMO	1488	O	ASN	L	190	-21.665	36.240	112.473	1.00	18.65	L	O
ÁTOMO	1489	CB	ASN	L	190	-24.129	36.593	114.472	1.00	33.07	L	C
ÁTOMO	1490	CG	ASN	L	190	-24.115	37.786	113.535	1.00	44.22	L	C
ÁTOMO	1491	OD1	ASN	L	190	-24.446	37.657	112.341	1.00	56.43	L	O
ÁTOMO	1492	ND2	ASN	L	190	-23.741	38.956	114.065	1.00	38.66	L	N
ÁTOMO	1493	N	SER	L	191	-21.084	35.798	114.568	1.00	24.96	L	N
ÁTOMO	1494	CA	SER	L	191	-19.696	36.279	114.426	1.00	24.15	L	C
ÁTOMO	1495	C	SER	L	191	-18.738	35.123	114.233	1.00	23.44	L	C
ÁTOMO	1496	O	SER	L	191	-18.689	34.219	115.065	1.00	25.33	L	O
ÁTOMO	1497	CB	SER	L	191	-19.320	37.056	115.696	1.00	20.64	L	C
ÁTOMO	1498	OG	SER	L	191	-18.092	37.707	115.570	1.00	34.95	L	O
ÁTOMO	1499	N	TYR	L	192	-17.976	35.164	113.130	1.00	20.47	L	N
ÁTOMO	1500	CA	TYR	L	192	-17.029	34.102	112.825	1.00	20.97	L	C
ÁTOMO	1501	C	TYR	L	192	-15.622	34.729	112.770	1.00	22.19	L	C
ÁTOMO	1502	O	TYR	L	192	-15.425	35.691	112.063	1.00	24.10	L	O
ÁTOMO	1503	CB	TYR	L	192	-17.436	33.470	111.492	1.00	17.62	L	C
ÁTOMO	1504	CG	TYR	L	192	-18.679	32.625	111.641	1.00	23.22	L	C
ÁTOMO	1505	CD1	TYR	L	192	-19.962	33.185	111.509	1.00	22.59	L	C
ÁTOMO	1506	CD2	TYR	L	192	-18.581	31.291	112.002	1.00	18.19	L	C
ÁTOMO	1507	CE1	TYR	L	192	-21.146	32.401	111.748	1.00	18.75	L	C
ÁTOMO	1508	CE2	TYR	L	192	-19.753	30.493	112.245	1.00	21.05	L	C
ÁTOMO	1509	CZ	TYR	L	192	-21.015	31.070	112.115	1.00	22.71	L	C
ÁTOMO	1510	OH	TYR	L	192	-22.121	30.287	112.355	1.00	19.40	L	O
ÁTOMO	1511	N	THR	L	193	-14.676	34.190	113.545	1.00	22.36	L	N
ÁTOMO	1512	CA	THR	L	193	-13.354	34.774	113.604	1.00	24.41	L	C
ÁTOMO	1513	C	THR	L	193	-12.233	33.758	113.480	1.00	24.10	L	C
ÁTOMO	1514	O	THR	L	193	-12.326	32.698	114.063	1.00	27.37	L	O
ÁTOMO	1515	CB	THR	L	193	-13.187	35.495	114.971	1.00	23.16	L	C
ÁTOMO	1516	OG1	THR	L	193	-14.157	36.553	115.064	1.00	21.75	L	O
ÁTOMO	1517	CG2	THR	L	193	-11.784	36.009	115.147	1.00	24.75	L	C
ÁTOMO	1518	N	CYS	L	194	-11.215	34.108	112.690	1.00	22.54	L	N
ÁTOMO	1519	CA	CYS	L	194	-9.983	33.318	112.457	1.00	26.58	L	C
ÁTOMO	1520	C	CYS	L	194	-8.897	34.154	113.238	1.00	26.19	L	C
ÁTOMO	1521	O	CYS	L	194	-8.706	35.294	112.848	1.00	24.23	L	O
ÁTOMO	1522	CB	CYS	L	194	-9.561	33.391	110.919	1.00	24.94	L	C
ÁTOMO	1523	SG	CYS	L	194	-8.068	32.434	110.661	1.00	42.81	L	S
ÁTOMO	1524	N	GLU	L	195	-8.283	33.639	114.320	1.00	24.48	L	N
ÁTOMO	1525	CA	GLU	L	195	-7.182	34.334	115.024	1.00	29.59	L	C
ÁTOMO	1526	C	GLU	L	195	-5.844	33.609	114.798	1.00	30.32	L	C
ÁTOMO	1527	O	GLU	L	195	-5.736	32.409	115.054	1.00	32.34	L	O
ÁTOMO	1528	CB	GLU	L	195	-7.426	34.400	116.545	1.00	30.17	L	C
ÁTOMO	1529	CG	GLU	L	195	-8.541	35.343	116.918	1.00	36.24	L	C
ÁTOMO	1530	CD	GLU	L	195	-8.662	35.481	118.422	1.00	40.41	L	C
ÁTOMO	1531	OE1	GLU	L	195	-7.813	34.889	119.126	1.00	37.64	L	O
ÁTOMO	1532	OE2	GLU	L	195	-9.588	36.176	118.878	1.00	45.58	L	O
ÁTOMO	1533	N	ALA	L	196	-4.832	34.351	114.356	1.00	29.64	L	N
ÁTOMO	1534	CA	ALA	L	196	-3.507	33.789	114.084	1.00	28.09	L	C
ÁTOMO	1535	C	ALA	L	196	-2.409	34.420	114.908	1.00	28.54	L	C
ÁTOMO	1536	O	ALA	L	196	-2.284	35.642	114.929	1.00	30.56	L	O
ÁTOMO	1537	C13	ALA	L	196	-3.153	33.991	112.624	1.00	29.68	L	C
ÁTOMO	1538	N	THR	L	197	-1.607	33.592	115.568	1.00	29.39	L	N
ÁTOMO	1539	CA	THR	L	197	-0.473	34.125	116.305	1.00	32.75	L	C
ÁTOMO	1540	C	THR	L	197	0.759	33.583	115.564	1.00	31.12	L	C
ÁTOMO	1541	O	THR	L	197	0.832	32.420	115.140	1.00	28.19	L	O
ÁTOMO	1542	CB	THR	L	197	-0.477	33.711	117.796	1.00	34.20	L	C
ÁTOMO	1543	OG1	THR	L	197	-0.216	32.310	117.927	1.00	37.75	L	O
ÁTOMO	1544	CG2	THR	L	197	-1.827	34.046	118.406	1.00	33.92	L	C

ÁTOMO	1545	N	HIS	L	198	1.711	34.469	115.370	1.00	30.73	L	N
ÁTOMO	1546	CA	HIS	L	198	2.919	34.147	114.605	1.00	27.74	L	C
ÁTOMO	1547	C	HIS	L	198	4.036	34.915	115.289	1.00	28.66	L	C
ÁTOMO	1548	0	HIS	L	198	3.788	35.879	116.009	1.00	26.28	L	0
ÁTOMO	1549	CB	HIS	L	198	2.719	34.651	113.168	1.00	24.97	L	C
ÁTOMO	1550	CG	HIS	L	198	3.864	34.340	112.254	1.00	23.60	L	C
ÁTOMO	1551	ND1	HIS	L	198	4.789	35.292	111.880	1.00	26.74	L	N
ÁTOMO	1552	CD2	HIS	L	198	4.259	33.179	111.670	1.00	23.17	L	C
ÁTOMO	1553	CE1	HIS	L	198	5.706	34.729	111.110	1.00	22.18	L	C
ÁTOMO	1554	NE2	HIS	L	198	5.410	33.448	110.968	1.00	17.91	L	N
ÁTOMO	1555	N	LYS	L	199	5.268	34.499	115.058	1.00	28.46	L	N
ÁTOMO	1556	CA	LYS	L	199	6.391	35.179	115.711	1.00	30.45	L	C
ÁTOMO	1557	C	LYS	L	199	6.336	36.684	115.519	1.00	30.56	L	C
ÁTOMO	1558	0	LYS	L	199	6.784	37.429	116.387	1.00	34.50	L	0
ÁTOMO	1559	CB	LYS	L	199	7.707	34.633	115.116	1.00	31.22	L	C
ÁTOMO	1560	CG	LYS	L	199	9.034	35.296	115.576	1.00	33.02	L	C
ÁTOMO	1561	CD	LYS	L	199	10.144	34.717	114.743	1.00	31.75	L	C
ÁTOMO	1562	CE	LYS	L	199	11.548	35.183	115.205	1.00	26.57	L	C
ÁTOMO	1563	NZ	LYS	L	199	12.553	34.725	114.206	1.00	35.93	L	N
ÁTOMO	1564	N	THR	L	200	5.783	37.135	114.393	1.00	30.74	L	N
ÁTOMO	1565	CA	THR	L	200	5.785	38.554	114.042	1.00	30.39	L	C
ÁTOMO	1566	C	THR	L	200	4.916	39.445	114.890	1.00	36.75	L	C
ÁTOMO	1567	0	THR	L	200	4.831	40.651	114.626	1.00	40.22	L	0
ÁTOMO	1568	CB	THR	L	200	5.430	38.783	112.541	1.00	30.63	L	C
ÁTOMO	1569	OG1	THR	L	200	4.283	37.982	112.176	1.00	34.17	L	0
ÁTOMO	1570	CG2	THR	L	200	6.642	38.347	111.650	1.00	26.33	L	C
ÁTOMO	1571	N	SER	L	201	4.240	38.842	115.875	1.00	42.72	L	N
ÁTOMO	1572	CA	SER	L	201	3.444	39.601	116.831	1.00	43.91	L	C
ÁTOMO	1573	C	SER	L	201	2.855	38.728	117.916	1.00	47.57	L	C
ÁTOMO	1574	0	SER	L	201	2.126	37.756	117.644	1.00	50.70	L	0
ÁTOMO	1575	CB	SER	L	201	2.328	40.364	116.130	1.00	43.23	L	C
ÁTOMO	1576	OG	SER	L	201	1.711	41.223	117.077	1.00	48.62	L	0
ÁTOMO	1577	N	THR	L	202	3.160	39.073	119.157	1.00	52.05	L	N
ÁTOMO	1578	CA	THR	L	202	2.652	38.344	120.314	1.00	56.48	L	C
ÁTOMO	1579	C	THR	L	202	1.097	38.311	120.322	1.00	56.15	L	C
ÁTOMO	1580	0	THR	L	202	0.468	37.332	120.756	1.00	56.79	L	0
ÁTOMO	1581	CB	THR	L	202	3.147	39.041	121.586	1.00	59.00	L	C
ÁTOMO	1582	OG1	THR	L	202	4.517	39.445	121.400	1.00	62.75	L	0
ÁTOMO	1583	CG2	THR	L	202	3.065	38.103	122.770	1.00	63.28	L	C
ÁTOMO	1584	N	SER	L	203	0.494	39.399	119.845	1.00	54.97	L	N
ÁTOMO	1585	CA	SER	L	203	-0.965	39.544	119.772	1.00	52.62	L	C
ÁTOMO	1586	C	SER	L	203	-1.454	38.958	118.442	1.00	49.42	L	C
ÁTOMO	1587	0	SER	L	203	-0.916	39.279	117.377	1.00	48.69	L	0
ÁTOMO	1588	CB	SER	L	203	-1.298	41.013	119.794	1.00	54.28	L	C
ÁTOMO	1589	OG	SER	L	203	-0.510	41.642	118.792	1.00	58.41	L	0
ÁTOMO	1590	N	PRO	L	204	-2.522	38.151	118.477	1.00	47.34	L	N
ÁTOMO	1591	CA	PRO	L	204	-3.014	37.553	117.233	1.00	42.56	L	C
ÁTOMO	1592	C	PRO	L	204	-3.502	38.506	116.165	1.00	39.20	L	C
ÁTOMO	1593	0	PRO	L	204	-3.898	39.613	116.453	1.00	33.50	L	O
ÁTOMO	1594	CB	PRO	L	204	-4.137	36.635	117.715	1.00	44.27	L	C
ÁTOMO	1595	CG	PRO	L	204	-4.723	37.438	118.867	1.00	43.09	L	C
ÁTOMO	1596	CD	PRO	L	204	-3.435	37.849	119.599	1.00	48.00	L	C
ÁTOMO	1597	N	ILE	L	205	-3.460	38.043	114.921	1.00	37.41	L	N
ÁTOMO	1598	CA	ILE	L	205	-3.986	38.796	113.780	1.00	32.91	L	C
ÁTOMO	1599	C	ILE	L	205	-5.428	38.239	113.757	1.00	30.62	L	C
ÁTOMO	1600	0	ILE	L	205	-5.641	37.013	113.784	1.00	29.63	L	O
ÁTOMO	1601	CB	ILE	L	205	-3.219	38.432	112.471	1.00	34.55	L	C
ÁTOMO	1602	CG1	ILE	L	205	-1.814	39.073	112.503	1.00	31.34	L	C
ÁTOMO	1603	CG2	ILE	L	205	-3.974	38.938	111.248	1.00	24.01	L	C
ÁTOMO	1604	CD1	ILE	L	205	-0.939	38.666	111.290	1.00	42.44	L	C

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ÁTOMO	1605	N	VAL	L	206	-6.396	39.139	113.730	1.00	25.89	L	N
ÁTOMO	1606	CA	VAL	L	206	-7.813	38.759	113.789	1.00	24.40	L	C
ÁTOMO	1607	C	VAL	L	206	-8.582	39.102	112.524	1.00	22.44	L	C
ÁTOMO	1608	O	VAL	L	206	-8.531	40.234	112.081	1.00	26.84	L	O
ÁTOMO	1609	CB	VAL	L	206	-8.485	39.495	115.011	1.00	20.80	L	C
ÁTOMO	1610	CG1	VAL	L	206	-9.979	39.144	115.107	1.00	25.93	L	C
ÁTOMO	1611	CG2	VAL	L	206	-7.782	39.060	116.324	1.00	28.40	L	C
ÁTOMO	1612	N	LYS	L	207	-9.259	38.127	111.900	1.00	23.36	L	N
ÁTOMO	1613	CA	LYS	L	207	-10.088	38.410	110.716	1.00	21.65	L	C
ÁTOMO	1614	C	LYS	L	207	-11.472	37.832	111.032	1.00	23.76	L	C
ÁTOMO	1615	O	LYS	L	207	-11.585	36.737	111.566	1.00	27.90	L	O
ÁTOMO	1616	CB	LYS	L	207	-9.560	37.756	109.450	1.00	23.08	L	C
ÁTOMO	1617	CG	LYS	L	207	-8.259	38.397	109.002	1.00	32.25	L	C
ÁTOMO	1618	CD	LYS	L	207	-8.452	39.818	108.444	1.00	39.96	L	C
ÁTOMO	1619	CE	LYS	L	207	-7.059	40.481	108.245	1.00	45.64	L	C
ÁTOMO	1620	NZ	LYS	L	207	-7.248	41.837	107.672	1.00	49.08	L	N
ÁTOMO	1621	N	SER	L	208	-12.515	38.553	110.696	1.00	24.38	L	N
ÁTOMO	1622	CA	SER	L	208	-13.865	38.071	111.044	1.00	25.80	L	C
ÁTOMO	1623	C	SER	L	208	-14.875	38.506	110.050	1.00	23.17	L	C
ÁTOMO	1624	O	SER	L	208	-14.619	39.407	109.269	1.00	27.40	L	O
ÁTOMO	1625	CB	SER	L	208	-14.363	38.722	112.364	1.00	25.60	L	C
ÁTOMO	1626	OG	SER	L	208	-13.384	38.712	113.361	1.00	44.51	L	O
ÁTOMO	1627	N	PHE	L	209	-16.051	37.880	110.105	1.00	22.25	L	N
ÁTOMO	1628	CA	PHE	L	209	-17.173	38.342	109.303	1.00	20.50	L	C
ÁTOMO	1629	C	PHE	L	209	-18.428	38.049	110.129	1.00	22.48	L	C
ÁTOMO	1630	O	PHE	L	209	-18.387	37.253	111.055	1.00	24.58	L	O
ÁTOMO	1631	CB	PHE	L	209	-17.269	37.664	107.939	1.00	16.13	L	C
ÁTOMO	1632	CG	PHE	L	209	-17.620	36.198	108.000	1.00	26.94	L	C
ÁTOMO	1633	CD1	PHE	L	209	-18.955	35.765	108.039	1.00	26.84	L	C
ÁTOMO	1634	CD2	PHE	L	209	-16.606	35.241	108.000	1.00	31.15	L	C
ÁTOMO	1635	CE1	PHE	L	209	-19.254	34.404	108.072	1.00	27.00	L	C
ÁTOMO	1636	CE2	PHE	L	209	-16.897	33.895	108.027	1.00	21.00	L	C
ÁTOMO	1637	CZ	PHE	L	209	-18.229	33.464	108.063	1.00	19.74	L	C
ÁTOMO	1638	N	ASN	L	210	-19.522	38.737	109.814	1.00	29.53	L	N
ÁTOMO	1639	CA	ASN	L	210	-20.809	38.497	110.471	1.00	32.53	L	C
ÁTOMO	1640	C	ASN	L	210	-21.715	37.868	109.438	1.00	33.07	L	C
ÁTOMO	1641	O	ASN	L	210	-21.804	38.326	108.302	1.00	37.81	L	O
ÁTOMO	1642	CB	ASN	L	210	-21.424	39.789	110.987	1.00	33.31	L	C
ÁTOMO	1643	CG	ASN	L	210	-20.647	40.358	112.131	1.00	41.97	L	C
ÁTOMO	1644	OD1	ASN	L	210	-20.232	39.624	113.028	1.00	53.13	L	O
ÁTOMO	1645	ND2	ASN	L	210	-20.427	41.673	112.111	1.00	48.33	L	N
ÁTOMO	1646	N	ARG	L	211	-22.349	36.779	109.810	1.00	34.50	L	N
ÁTOMO	1647	CA	ARG	L	211	-23.225	36.076	108.891	1.00	36.42	L	C
ÁTOMO	1648	C	ARG	L	211	-24.255	37.088	108.362	1.00	43.20	L	C
ÁTOMO	1649	O	ARG	L	211	-24.483	37.085	107.129	1.00	47.09	L	O
ÁTOMO	1650	CB	ARG	L	211	-23.897	34.874	109.605	1.00	32.11	L	C
ÁTOMO	1651	CG	ARG	L	211	-24.800	33.985	108.728	1.00	23.39	L	C
ÁTOMO	1652	CD	ARG	L	211	-25.278	32.779	109.472	1.00	19.99	L	C
ÁTOMO	1653	NE	ARG	L	211	-25.888	33.196	110.725	1.00	38.28	L	N
ÁTOMO	1653	NE	ARG	L	211	-25.888	33.196	110.725	1.00	38.28	L	N
ÁTOMO	1654	CZ	ARG	L	211	-27.142	33.605	110.849	1.00	44.67	L	C
ÁTOMO	1655	NH1	ARG	L	211	-27.949	33.631	109.786	1.00	48.24	L	N
ÁTOMO	1656	NH2	ARG	L	211	-27.568	34.048	112.027	1.00	46.31	L	O
ÁTOMO	1657	OXT	ARG	L	211	-24.796	37.887	109.158	1.00	43.58	L	O
TER	1658		ARG	L	211							
ÁTOMO	1659	N	GLU	H	1	13.634	16.019	73.396	1.00	37.05	H	N
ÁTOMO	1660	CA	GLU	H	1	13.497	15.897	74.879	1.00	37.26	H	C

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ÁTOMO	1661	C	GLU	H	1	12.992	14.523	75.281	1.00	32.62	H C
ÁTOMO	1662	O	GLU	H	1	12.103	13.972	74.644	1.00	31.05	H O
ÁTOMO	1663	CB	GLU	H	1	12.537	16.969	75.411	1.00	39.07	H C
ÁTOMO	1664	CG	GLU	H	1	11.930	16.635	76.750	1.00	56.68	H C
ÁTOMO	1665	CD	GLU	H	1	11.585	17.889	77.553	1.00	73.84	H C
ÁTOMO	1666	OE1	GLU	H	1	11.488	17.807	78.805	1.00	77.86	H O
ÁTOMO	1667	OE2	GLU	H	1	11.417	18.958	76.922	1.00	78.38	H O
ÁTOMO	1668	N	VAL	H	2	13.548	13.973	76.355	1.00	30.97	H N
ÁTOMO	1669	CA	VAL	H	2	13.122	12.653	76.833	1.00	25.27	H C
ÁTOMO	1670	C	VAL	H	2	11.817	12.857	77.557	1.00	25.45	H C
ÁTOMO	1671	O	VAL	H	2	11.670	13.778	78.359	1.00	28.52	H O
ÁTOMO	1672	CB	VAL	H	2	14.101	12.061	77.867	1.00	21.49	H C
ÁTOMO	1673	CG1	VAL	H	2	13.467	10.846	78.519	1.00	20.68	H C
ÁTOMO	1674	CG2	VAL	H	2	15.439	11.700	77.205	1.00	23.15	H C
ÁTOMO	1675	N	ALA	H	3	10.865	11.994	77.290	1.00	25.40	H N
ÁTOMO	1676	CA	ALA	H	3	9.593	12.073	77.975	1.00	28.29	H C
ÁTOMO	1677	C	ALA	H	3	9.089	10.661	78.373	1.00	26.97	H C
ÁTOMO	1678	O	ALA	H	3	9.185	9.698	77.593	1.00	29.48	H O
ÁTOMO	1679	CB	ALA	H	3	8.549	12.845	77.052	1.00	27.69	H C
ÁTOMO	1680	N	LEU	H	4	8.609	10.538	79.612	1.00	24.22	H N
ÁTOMO	1681	CA	LEU	H	4	8.061	9.287	80.137	1.00	20.89	H C
ÁTOMO	1682	C	LEU	H	4	6.689	9.658	80.678	1.00	22.76	H C
ÁTOMO	1683	O	LEU	H	4	6.584	10.514	81.590	1.00	27.07	H O
ÁTOMO	1684	CB	LEU	H	4	8.916	8.766	81.302	1.00	22.55	H C
ÁTOMO	1685	CG	LEU	H	4	10.384	8.474	80.837	1.00	17.66	H C
ÁTOMO	1686	CD1	LEU	H	4	11.151	8.000	82.071	1.00	17.39	H C
ÁTOMO	1687	CD2	LEU	H	4	10.446	7.366	79.750	1.00	23.92	H C
ÁTOMO	1688	N	VAL	H	5	5.639	9.005	80.176	1.00	24.40	H N
ÁTOMO	1689	CA	VAL	H	5	4.290	9.364	80.620	1.00	20.43	H C
ÁTOMO	1690	C	VAL	H	5	3.513	8.155	81.167	1.00	20.69	H C
ÁTOMO	1691	O	VAL	H	5	3.095	7.262	80.397	1.00	23.26	H O
ÁTOMO	1692	CB	VAL	H	5	3.505	9.990	79.464	1.00	17.37	H C
ÁTOMO	1693	CG1	VAL	H	5	2.092	10.282	79.925	1.00	12.65	H C
ÁTOMO	1694	CG2	VAL	H	5	4.204	11.263	78.989	1.00	16.08	H C
ÁTOMO	1695	N	GLU	H	6	3.282	8.143	82.474	1.00	18.23	H N
ÁTOMO	1696	CA	GLU	H	6	2.590	6.997	83.074	1.00	21.02	H C
ÁTOMO	1697	C	GLU	H	6	1.080	7.101	83.005	1.00	24.64	H C
ÁTOMO	1698	O	GLU	H	6	0.535	8.187	82.930	1.00	24.72	H O
ÁTOMO	1699	*CB*	GLU	H	6	2.948	6.778	84.539	1.00	23.51	H C
ÁTOMO	1700	CG	GLU	H	6	4.498	6.643	84.825	1.00	22.40	H C
ÁTOMO	1701	CD	GLU	H	6	5.121	7.975	85.129	1.00	24.00	H C
ÁTOMO	1702	OE1	GLU	H	6	4.652	9.035	84.652	1.00	22.51	H O
ÁTOMO	1703	OE2	GLU	H	6	6.169	7.956	85.930	1.00	20.14	H O
ÁTOMO	1704	N	SER	H	7	0.426	5.954	82.993	1.00	25.35	H N
ÁTOMO	1705	CA	SER	H	7	-1.051	5.957	83.008	1.00	24.71	H C
ÁTOMO	1706	C	SER	H	7	-1.494	4.639	83.623	1.00	23.70	H C
ÁTOMO	1707	O	SER	H	7	-0.669	3.750	83.870	1.00	23.79	H O
ÁTOMO	1708	*CB*	SER	H	7	-1.625	6.137	81.602	1.00	24.31	H C
ÁTOMO	1709	OG	SER	H	7	-1.219	5.109	80.733	1.00	29.67	H O
ÁTOMO	1710	N	GLY	H	8	-2.793	4.535	83.926	1.00	24.57	H N
ÁTOMO	1711	CA	GLY	H	8	-3.309	3.306	84.479	1.00	26.40	H C
ÁTOMO	1712	C	GLY	H	8	-3.483	3.239	85.973	1.00	27.67	H C
ÁTOMO	1713	O	GLY	H	8	-3.994	2.242	86.485	1.00	32.68	H O
ÁTOMO	1714	N	GLY	H	9	-3.071	4.256	86.714	1.00	26.70	H N
ÁTOMO	1715	CA	GLY	H	9	-3.267	4.106	88.133	1.00	30.26	H C
ÁTOMO	1716	C	GLY	H	9	-4.736	4.366	88.505	1.00	31.53	H C
ÁTOMO	1717	O	GLY	H	9	-5.554	4.742	87.658	1.00	34.39	H O
ÁTOMO	1718	N	GLY	H	10	-5.050	4.186	89.771	1.00	26.64	H N
ÁTOMO	1719	CA	GLY	H	10	-6.399	4.406	90.224	1.00	24.06	H C

ATOMO	1720	C	GLY	H	10	-6.617	3.606	91.474	1.00	28.46	H	C
ATOMO	1721	O	GLY	H	10	-5.670	3.135	92.107	1.00	29.65	H	O
ATOMO	1722	N	LEU	H	11	-7.894	3.418	91.830	1.00	27.81	H	N
ATOMO	1723	CA	LEU	H	11	-8.248	2.704	93.050	1.00	26.68	H	C
ATOMO	1724	C	LEU	H	11	-8.468	1.217	92.762	1.00	29.79	H	C
ATOMO	1725	O	LEU	H	11	-9.134	0.859	91.790	1.00	31.97	H	O
ATOMO	1726	CB	LEU	H	11	-9.553	3.275	93.616	1.00	27.46	H	C
ATOMO	1727	CG	LEU	H	11	-10.211	2.593	94.829	1.00	30.78	H	C
ATOMO	1728	CD1	LEU	H	11	-9.387	2.638	96.069	1.00	21.39	H	C
ATOMO	1729	CD2	LEU	H	11	-11.577	3.319	95.076	1.00	26.61	H	C
ATOMO	1730	N	VAL	H	12	-7.979	0.362	93.641	1.00	31.51	H	N
ATOMO	1731	CA	VAL	H	12	-8.140	-1.062	93.408	1.00	31.17	H	C
ATOMO	1732	C	VAL	H	12	-8.342	-1.688	94.747	1.00	29.15	H	C
ATOMO	1733	O	VAL	H	12	-7.779	-1.243	95.722	1.00	29.56	H	O
ATOMO	1734	CB	VAL	H	12	-6.873	-1.668	92.693	1.00	32.00	H	C
ATOMO	1735	CG1	VAL	H	12	-5.599	-1.392	93.539	1.00	28.63	H	C
ATOMO	1736	CG2	VAL	H	12	-7.045	-3.187	92.482	1.00	29.00	H	C
ATOMO	1737	N	LYS	H	13	-9.176	-2.723	94.826	1.00	28.70	H	N
ATOMO	1738	CA	LYS	H	13	-9.363	-3.342	96.115	1.00	31.56	H	C
ATOMO	1739	C	LYS	H	13	-8.219	-4.272	96.474	1.00	30.38	H	C
ATOMO	1740	O	LYS	H	13	-7.512	-4.781	95.618	1.00	33.11	H	O
ATOMO	1741	CB	LYS	H	13	-10.696	-4.153	96.145	1.00	33.16	H	C
ATOMO	1742	CG	LYS	H	13	-11.898	-3.328	95.773	1.00	41.91	H	C
ATOMO	1743	CD	LYS	H	13	-13.189	-3.961	96.279	1.00	51.54	H	C
ATOMO	1744	CE	LYS	H	13	-14.387	-3.251	95.690	1.00	65.14	H	C
ATOMO	1745	NZ	LYS	H	13	-14.447	-3.378	94.190	1.00	58.25	H	N
ATOMO	1746	N	PRO	H	14	-8.006	-4.494	97.763	1.00	28.47	H	N
ATOMO	1747	CA	PRO	H	14	-6.935	-5.398	98.191	1.00	27.81	H	C
ATOMO	1748	C	PRO	H	14	-7.158	-6.767	97.499	1.00	30.73	H	C
ATOMO	1749	O	PRO	H	14	-8.300	-7.224	97.382	1.00	33.00	H	O
ATOMO	1750	CB	PRO	H	14	-7.162	-5.504	99.686	1.00	27.15	H	C
ATOMO	1751	CG	PRO	H	14	-7.812	-4.191	100.033	1.00	25.33	H	C
ATOMO	1752	CD	PRO	H	14	-8.684	-3.850	98.901	1.00	24.23	H	C
ATOMO	1753	N	GLY	H	15	-6.077	-7.418	97.087	1.00	31.50	H	N
ATOMO	1754	CA	GLY	H	15	-6.149	-8.694	96.398	1.00	26.43	H	C
ATOMO	1755	C	GLY	H	15	-6.402	-8.471	94.922	1.00	31.35	H	C
ATOMO	1756	O	GLY	H	15	-6.348	-9.393	94.114	1.00	37.77	H	O
ATOMO	1757	N	GLY	H	16	-6.658	-7.228	94.547	1.00	30.42	H	N
ATOMO	1758	CA	GLY	H	16	-6.924	-6.919	93.159	1.00	30.36	H	C
ATOMO	1759	C	GLY	H	16	-5.678	-6.869	92.275	1.00	30.40	H	C
ATOMO	1760	O	GLY	H	16	-4.555	-7.147	92.740	1.00	33.82	H	O
ATOMO	1761	N	SER	H	17	-5.912	-6.536	91.007	1.00	27.09	H	N
ATOMO	1762	CA	SER	H	17	-4.893	-6.420	89.970	1.00	31.01	H	C
ATOMO	1763	C	SER	H	17	-5.030	-5.095	89.249	1.00	33.12	H	C
ATOMO	1764	O	SER	H	17	-6.118	-4.506	89.210	1.00	35.49	H	O
ATOMO	1765	CB	SER	H	17	-5.035	-7.527	88.925	1.00	29.40	H	C
ATOMO	1766	OG	SER	H	17	-4.519	-8.733	89.433	1.00	40.23	H	O
ATOMO	1767	N	LEU	H	18	-3.933	-4.645	88.635	1.00	29.11	H	N
ATOMO	1768	CA	LEU	H	18	-3.967	-3.407	87.892	1.00	31.40	H	C
ATOMO	1769	C	LEU	H	18	-2.737	-3.388	86.979	1.00	28.04	H	C
ATOMO	1770	O	LEU	H	18	-1.704	-3.871	87.384	1.00	31.12	H	O
ATOMO	1771	CB	LEU	H	18	-3.904	-2.234	88.882	1.00	36.05	H	C
ATOMO	1772	CG	LEU	H	18	-4.099	-0.827	88.311	1.00	36.13	H	C
ATOMO	1773	CD1	LEU	H	18	-5.511	-0.718	87.716	1.00	32.11	H	C
ATOMO	1774	CD2	LEU	H	18	-3.910	0.228	89.402	1.00	41.12	H	C
ATOMO	1775	N	LYS	H	19	-2.838	-2.822	85.789	1.00	23.49	H	N
ATOMO	1776	CA	LYS	H	19	-1.670	-2.786	84.915	1.00	23.15	H	C
ATOMO	1777	C	LYS	H	19	-1.353	-1.349	84.578	1.00	26.43	H	C
ATOMO	1778	O	LYS	H	19	-2.207	-0.617	84.062	1.00	25.06	H	O
ATOMO	1779	CB	LYS	H	19	-1.911	-3.507	83.593	1.00	24.43	H	C
ATOMO	1780	CG	LYS	H	19	-0.624	-3.721	82.771	1.00	28.16	H	C
ATOMO	1781	CD	LYS	H	19	-0.877	-4.632	81.551	1.00	27.11	H	C
ATOMO	1782	CE	LYS	H	19	0.438	-5.139	80.971	1.00	37.87	H	C
ATOMO	1783	NZ	LYS	H	19	0.227	-5.854	79.670	1.00	50.80	H	N
ATOMO	1784	N	LEU	H	20	-0.120	-0.942	84.881	1.00	25.63	H	N
ATOMO	1785	CA	LEU	H	20	0.334	0.417	84.587	1.00	23.09	H	C

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ÁTOMO	1786	C	LEU	H	20	1.119	0.431	83.293	1.00	21.89	H	C
ÁTOMO	1787	O	LEU	H	20	1.814	-0.552	82.969	1.00	23.58	H	O
ÁTOMO	1788	CB	LEU	H	20	1.277	0.900	85.707	1.00	22.80	H	C
ÁTOMO	1789	CG	LEU	H	20	0.799	0.750	87.143	1.00	23.07	H	C
ÁTOMO	1790	CD1	LEU	H	20	1.851	1.306	88.119	1.00	30.17	H	C
ÁTOMO	1791	CD2	LEU	H	20	-0.538	1.505	87.267	1.00	26.07	H	C
ÁTOMO	1792	N	SER	H	21	1.050	1.558	82.595	1.00	19.29	H	N
ÁTOMO	1793	CA	SER	H	21	1.749	1.754	81.359	1.00	22.08	H	C
ÁTOMO	1794	C	SER	H	21	2.636	2.978	81.440	1.00	24.30	H	C
ÁTOMO	1795	O	SER	H	21	2.353	3.911	82.195	1.00	27.22	H	O
ÁTOMO	1796	CB	SER	H	21	0.748	1.964	80.229	1.00	21.00	H	C
ÁTOMO	1797	OG	SER	H	21	0.011	0.761	80.030	1.00	34.43	H	O
ÁTOMO	1798	N	CYS	H	22	3.661	2.991	80.608	1.00	21.98	H	N
ÁTOMO	1799	CA	CYS	H	22	4.571	4.125	80.536	1.00	20.64	H	C
ÁTOMO	1800	C	CYS	H	22	4.981	4.313	79.090	1.00	21.24	H	C
ÁTOMO	1801	O	CYS	H	22	5.646	3.437	78.532	1.00	27.26	H	O
ÁTOMO	1802	CB	CYS	H	22	5.802	3.897	81.424	1.00	21.02	H	C
ÁTOMO	1803	SG	CYS	H	22	6.992	5.249	81.188	1.00	29.58	H	S
ÁTOMO	1804	N	ALA	H	23	4.556	5.436	78.489	1.00	17.76	H	N
ÁTOMO	1805	CA	ALA	H	23	4.855	5.821	77.114	1.00	20.00	H	C
ÁTOMO	1806	C	ALA	H	23	6.179	6.585	77.077	1.00	23.26	H	C
ÁTOMO	1807	O	ALA	H	23	6.306	7.663	77.655	1.00	25.72	H	O
ÁTOMO	1808	CB	ALA	H	23	3.739	6.738	76.544	1.00	17.81	H	C
ÁTOMO	1809	N	ALA	H	24	7.133	6.073	76.318	1.00	24.36	H	N
ÁTOMO	1810	CA	ALA	H	24	8.427	6.705	76.290	1.00	25.28	H	C
ÁTOMO	1811	C	ALA	H	24	8.741	7.270	74.950	1.00	26.13	H	C
ÁTOMO	1812	O	ALA	H	24	8.397	6.679	73.921	1.00	27.39	H	O
ÁTOMO	1813	CB	ALA	H	24	9.480	5.704	76.687	1.00	25.98	H	C
ÁTOMO	1814	N	SER	H	25	9.407	8.414	74.946	1.00	24.17	H	N
ÁTOMO	1815	CA	SER	H	25	9.761	9.022	73.680	1.00	26.47	H	C
ÁTOMO	1816	C	SER	H	25	11.004	9.896	73.855	1.00	26.46	H	C
ÁTOMO	1817	O	SER	H	25	11.383	10.242	74.967	1.00	28.62	H	O
ÁTOMO	1818	CB	SER	H	25	8.583	9.889	73.200	1.00	27.45	H	C
ÁTOMO	1819	OG	SER	H	25	8.344	10.935	74.132	1.00	24.69	H	O
ÁTOMO	1820	N	GLY	H	26	11.678	10.210	72.769	1.00	22.55	H	N
ÁTOMO	1821	CA	GLY	H	26	12.807	11.111	72.911	1.00	20.54	H	C
ÁTOMO	1822	C	GLY	H	26	14.151	10.470	73.084	1.00	24.32	H	C
ÁTOMO	1823	O	GLY	H	26	15.139	11.176	73.294	1.00	24.89	H	O
ÁTOMO	1824	N	PHE	H	27	14.199	9.141	73.028	1.00	21.93	H	N
ÁTOMO	1825	CA	PHE	H	27	15.482	8.426	73.112	1.00	20.14	H	C
ÁTOMO	1826	C	PHE	H	27	15.297	7.067	72.471	1.00	21.32	H	C
ÁTOMO	1827	O	PHE	H	27	14.152	6.622	72.250	1.00	23.00	H	O
ÁTOMO	1828	CB	PHE	H	27	15.964	8.301	74.591	1.00	20.36	H	C
ÁTOMO	1829	CG	PHE	H	27	15.035	7.491	75.504	1.00	18.12	H	C
ÁTOMO	1830	CD1	PHE	H	27	15.278	6.164	75.788	1.00	10.19	H	C
ÁTOMO	1831	CD2	PHE	H	27	13.905	8.073	76.058	1.00	18.20	H	C
ÁTOMO	1832	CE1	PHE	H	27	14.417	5.404	76.613	1.00	15.96	H	C
ÁTOMO	1833	CE2	PHE	H	27	13.028	7.329	76.893	1.00	21.16	H	C
ÁTOMO	1834	CZ	PHE	H	27	13.276	6.009	77.174	1.00	9.67	H	C
ÁTOMO	1835	N	THR	H	28	16.400	6.358	72.225	1.00	20.96	H	N
ÁTOMO	1836	CA	THR	H	28	16.307	5.056	71.570	1.00	20.74	H	C
ÁTOMO	1837	C	THR	H	28	15.937	4.013	72.549	1.00	22.28	H	C
ÁTOMO	1838	O	THR	H	28	16.775	3.363	73.126	1.00	25.49	H	O
ÁTOMO	1839	CB	THR	H	28	17.610	4.727	70.871	1.00	17.35	H	C
ÁTOMO	1840	OG1	THR	H	28	17.834	5.747	69.902	1.00	22.02	H	O
ÁTOMO	1841	CG2	THR	H	28	17.527	3.399	70.157	1.00	21.93	H	C
ÁTOMO	1842	N	PHE	H	29	14.636	3.854	72.730	1.00	20.12	H	N
ÁTOMO	1843	CA	PHE	H	29	14.092	2.922	73.707	1.00	19.24	H	C
ÁTOMO	1844	C	PHE	H	29	14.698	1.534	73.827	1.00	20.34	H	C
ÁTOMO	1845	O	PHE	H	29	15.023	1.081	74.937	1.00	22.88	H	O
ÁTOMO	1846	CB	PHE	H	29	12.568	2.808	73.476	1.00	18.98	H	C
ÁTOMO	1847	CG	PHE	H	29	11.821	2.069	74.551	1.00	18.94	H	C
ÁTOMO	1848	CD1	PHE	H	29	11.547	2.681	75.784	1.00	17.20	H	C
ÁTOMO	1849	CD2	PHE	H	29	11.337	0.774	74.328	1.00	17.93	H	C
ÁTOMO	1850	CE1	PHE	H	29	10.802	1.996	76.752	1.00	20.22	H	C

ÁTOMO	1851	CE2	PHE H	29	10.587	0.086	75.316	1.00	20.54	H	C
ÁTOMO	1852	CZ	PHE H	29	10.330	0.704	76.515	1.00	7.20	H	C
ÁTOMO	1853	N	ILE H	30	14.872	0.847	72.699	1.00	22.05	H	N
ÁTOMO	1854	CA	ILE H	30	15.393	-0.520	72.753	1.00	24.80	H	C
ÁTOMO	1855	C	ILE H	30	16.752	-0.688	73.403	1.00	22.06	H	C
ÁTOMO	1856	O	ILE H	30	17.027	-1.775	73.909	1.00	23.49	H	O
ÁTOMO	1857	CB	ILE H	30	15.488	-1.222	71.350	1.00	23.26	H	C
ÁTOMO	1858	CG1	ILE H	30	16.369	-0.396	70.424	1.00	23.10	H	C
ÁTOMO	1859	CG2	ILE H	30	14.061	-1.412	70.768	1.00	32.12	H	C
ÁTOMO	1860	CD1	ILE H	30	16.802	-1.136	69.186	1.00	38.83	H	C
ÁTOMO	1861	N	SER H	31	17.546	0.377	73.443	1.00	18.26	H	N
ÁTOMO	1862	CA	SER H	31	18.890	0.261	74.003	1.00	18.45	H	C
ÁTOMO	1863	C	SER H	31	18.984	0.503	75.508	1.00	18.69	H	C
ÁTOMO	1864	O	SER H	31	20.041	0.256	76.089	1.00	21.46	H	O
ÁTOMO	1865	CB	SER H	31	19.874	1.206	73.291	1.00	14.50	H	C
ÁTOMO	1866	OC	SER H	31	20.169	0.722	71.962	1.00	31.45	H	O
ÁTOMO	1867	N	TYR H	32	17.883	0.952	76.124	1.00	18.03	H	N
ÁTOMO	1868	CA	TYR H	32	17.886	1.240	77.549	1.00	14.33	H	C
ÁTOMO	1869	C	TYR H	32	17.152	0.280	78.441	1.00	15.02	H	C
ÁTOMO	1870	O	TYR H	32	16.115	-0.302	78.076	1.00	14.37	H	O
ÁTOMO	1871	CB	TYR H	32	17.310	2.665	77.818	1.00	13.79	H	C
ÁTOMO	1872	CG	TYR H	32	18.198	3.793	77.298	1.00	17.16	H	C
ÁTOMO	1873	CD1	TYR H	32	18.203	4.142	75.943	1.00	14.56	H	C
ÁTOMO	1874	CD2	TYR H	32	19.042	4.487	78.156	1.00	14.56	H	C
ÁTOMO	1875	CE1	TYR H	32	19.020	5.152	75.457	1.00	17.45	H	C
ÁTOMO	1876	CE2	TYR H	32	19.882	5.505	77.679	1.00	20.18	H	C
ÁTOMO	1877	CZ	TYR H	32	19.857	5.828	76.330	1.00	23.49	H	C
ÁTOMO	1878	OH	TYR H	32	20.666	6.850	75.863	1.00	28.23	H	O
ÁTOMO	1879	N	ALA H	33	17.698	0.140	79.651	1.00	14.42	H	N
ÁTOMO	1880	CA	ALA H	33	17.057	-0.615	80.695	1.00	14.51	H	C
ÁTOMO	1881	C	ALA H	33	15.993	0.394	81.252	1.00	14.39	H	C
ÁTOMO	1882	O	ALA H	33	16.123	1.624	81.104	1.00	12.17	H	O
ÁTOMO	1883	CB	ALA H	33	18.055	-1.001	81.806	1.00	12.68	H	C
ÁTOMO	1884	N	MET H	34	14.949	-0.140	81.862	1.00	16.84	H	N
ÁTOMO	1885	CA	MET H	34	13.874	0.700	82.416	1.00	16.36	H	C
ÁTOMO	1886	C	MET H	34	13.439	0.188	83.758	1.00	15.55	H	C
ÁTOMO	1887	O	MET H	34	13.601	-0.987	84.086	1.00	13.11	H	O
ÁTOMO	1888	CB	MET H	34	12.651	0.697	81.474	1.00	15.24	H	C
ÁTOMO	1889	CG	MET H	34	12.887	1.223	80.071	1.00	14.09	H	C
ÁTOMO	1890	SD	MET H	34	13.108	3.014	79.968	1.00	20.48	H	S
ÁTOMO	1891	CE	MET H	34	11.533	3.688	80.662	1.00	7.18	H	C
ÁTOMO	1892	N	SER H	35	12.790	1.053	84.546	1.00	16.91	H	N
ÁTOMO	1893	CA	SER H	35	12.374	0.616	85.875	1.00	19.04	H	C
ÁTOMO	1894	C	SER H	35	11.092	1.306,	86.348	1.00	18.31	H	C
ÁTOMO	1895	O	SER H	35	10.620	2.251	85.722	1.00	24.04	H	O
ÁTOMO	1896	CB	SER H	35	13.451	0.992	86.951	1.00	14.30	H	C
ÁTOMO	1897	OG	SER H	35	14.755	0.386	86.723	1.00	22.00	H	O
ÁTOMO	1898	N	TRP H	36	10.567	0.771	87.440	1.00	12.01	H	N
ÁTOMO	1899	CA	TRP H	36	9.448	1.383	88.154	1.00	12.95	H	C
ÁTOMO	1900	C	TRP H	36	9.970	1.598	89.590	1.00	18.28	H	C
ÁTOMO	1901	O	TRP H	36	10.611	0.709	90.210	1.00	16.01	H	O
ÁTOMO	1902	CB	TRP H	36	8.232	0.467	88.231	1.00	14.71	H	C
ÁTOMO	1903	CG	TRP H	36	7.503	0.323	86.885	1.00	21.41	H	C
ÁTOMO	1904	CD1	TRP H	36	7.705	-0.669	85.937	1.00	9.67	H	C
ÁTOMO	1905	CD2	TRP H	36	6.505	1.203	86.345	1.00	18.07	H	C
ÁTOMO	1906	NE1	TRP H	36	6.897	-0.430	84.856	1.00	23.74	H	N
ÁTOMO	1907	CE2	TRP H	36	6.144	0.698	85.078	1.00	17.04	H	C
ÁTOMO	1908	CE3	TRP H	36	5.874	2.365	86.817	1.00	4.98	H	C

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ATOM	1909	CZ2	TRP	H	36	5.177	1.314	84.267	1.00	16.74	H	C
ATOM	1910	CZ3	TRP	H	36	4.929	2.981	86.022	1.00	19.83	H	C
ATOM	1911	CH2	TRP	H	36	4.582	2.456	84.745	1.00	18.46	H	C
ATOM	1912	N	VAL	H	37	9.660	2.777	90.138	1.00	19.29	H	N
ATOM	1913	CA	VAL	H	37	10.093	3.115	91.481	1.00	19.64	H	C
ATOM	1914	C	VAL	H	37	8.845	3.770	92.101	1.00	19.14	H	C
ATOM	1915	O	VAL	H	37	8.269	4.629	91.495	1.00	19.32	H	O
ATOM	1916	CB	VAL	H	37	11.249	4.180	91.436	1.00	20.61	H	C
ATOM	1917	CG1	VAL	H	37	11.648	4.586	92.880	1.00	17.50	H	C
ATOM	1918	CG2	VAL	H	37	12.488	3.563	90.693	1.00	17.13	H	C
ATOM	1919	N	ARG	H	38	8.492	3.378	93.319	1.00	16.77	H	N
ATOM	1920	CA	ARG	H	38	7.287	3.953	93,923	1.00	15.98	H	C
ATOM	1921	C	ARG	H	38	7.630	4.775	95.146	1.00	18.04	H	C
ATOM	1922	O	ARG	H	38	8.684	4.632	95.734	1.00	16.62	H	O.
ATOM	1923	CB	ARG	H	38	6.282	2.840	94.307	1.00	16.85	H	C
ATOM	1924	CG	ARG	H	38	6.772	1.938	95.386	1.00	8.21	H	C
ATOM	1925	CD	ARG	H	38	5.789	0.730	95.622	1.00	11.19	H	C
ATOM	1926	NE	ARG	H	38	6.272	-0.154	96.661	1.00	14.89	H	N
ATOM	1927	CZ	ARG	H	38	5.688	-1.319	96.949	1.00	22.76	H	C
ATOM	1928	NH1	ARG	H	38	4.620	-1.693	96.239	1.00	24.06	H	N
ATOM	1929	NH2	ARG	H	38	6.132	-2.078	97.948	1.00	23.16	H	N
ATOM	1930	N	GLN	H	39	6.722	5.687	95.494	1.00	18.48	H	N
ATOM	1931	CA	GLN	H	39	6.952	6.530	96.674	1.00	22.51	H	C
ATOM	1932	C	GLN	H	39	5.681	6.398	97.560	1.00	26.22	H	C
ATOM	1933	O	GLN	H	39	4.589	6.703	97.106	1.00	29.41	H	O
ATOM	1934	CB	GLN	H	39	7.135	7.993	96.242	1.00	20.08	H	C
ATOM	1935	CG	GLN	H	39	7.516	8.855	97.445	1.00	14.71	H	C
ATOM	1936	CD	GLN	H	39	8.012	10.206	97.003	1.00	17.69	H	C
ATOM	1937	OE1	GLN	H	39	7.450	10.799	96.080	1.00	22.74	H	O
ATOM	1938	NE2	GLN	H	39	9.069	10.709	97.657	1.00	18.94	H	N
ATOM	1939	N	THR	H	40	5.873	5.960	98.790	1.00	25.08	H	N
ATOM	1940	CA	THR	H	40	4.759	5.695	99.685	1.00	29.28	H	C
ATOM	1941	C	THR	H	40	4.186	6.999	100.217	1.00	33.51	H	C
ATOM	1942	O	THR	H	40	4.780	8.083	100.063	1.00	32.02	H	O
ATOM	1943	CB	THR	H	40	5.216	4.895	100.892	1.00	31.26	H	C
ATOM	1944	OG1	THR	H	40	6.209	5.658	101.561	1.00	31.13	H	O
ATOM	1945	CG2	THR	H	40	5.773	3.512	100.514	1.00	25.76	H	C
ATOM	1946	N	PRO	H	41	3.022	6.913	100.873	1.00	36.66	H	N
ATOM	1947	CA	PRO	H	41	2.477	8.172	101.383	1.00	36.86	H	C
ATOM	1948	C	PRO	H	41	3.443	8.778	102.402	1.00	34.19	H	C
ATOM	1949	O	PRO	H	41	3.458	9.974	102.614	1.00	31.19	H	O
ATOM	1950	CB	PRO	H	41	1.129	7.754	101.986	1.00	37.38	H	C
ATOM	1951	CG	PRO	H	41	0.734	6.506	101.085	1.00	40.44	H	C
ATOM	1952	CD	PRO	H	41	2.088	5.790	101.047	1.00	34.79	H	C
ATOM	1953	N	GLU	H	42	4.267	7.959	103.020	1.00	33.50	H	N
ATOM	1954	CA	GLU	H	42	5.212	8.508	103.978	1.00	31.61	H	C
ATOM	1955	C	GLU	H	42	6.439	9.112	103.280	1.00	30.07	H	C
ATOM	1956	O	GLU	H	42	7.333	9.576	103.954	1.00	28.54	H	O
ATOM	1957	CB	GLU	H	42	5.637	7.449	104.982	1.00	35.54	H	C
ATOM	1958	CG	GLU	H	42	4.441	6.687	105.587	1.00	46.36	H	C
ATOM	1959	CD	GLU	H	42	3.822	5.712	104.591	1.00	59.41	H	C
ATOM	1960	OE1	GLU	H	42	4.424	4.635	104.358	1.00	59.82	H	O
ATOM	1961	OE2	GLU	H	42	2.748	6.039	104.027	1.00	63.05	H	O
ATOM	1962	N	LYS	H	43	6.428	9.133	101.944	1.00	25.52	H	N
ATOM	1963	CA	LYS	H	43	7.505	9.712	101.126	1.00	24.37	H	C
ATOM	1964	C	LYS	H	43	8.755	8.881	100.935	1.00	24.96	H	C
ATOM	1965	O	LYS	H	43	9.754	9.391	100.407	1.00	22.88	H	O
ATOM	1966	CB	LYS	H	43	7.938	11.087	101.655	1.00	27.09	H	C
ATOM	1967	CG	LYS	H	43	7.326	12.215	100.938	1.00	34.74	H	C
ATOM	1968	CD	LYS	H	43	5.872	12.299	101.209	1.00	51.35	H	C
ATOM	1969	CE	LYS	H	43	5.123	12.594	99.921	1.00	51.99	H	C
ATOM	1970	NZ	LYS	H	43	3.689	12.833	100.223	1.00	50.46	H	N
ATOM	1971	N	ARG	H	44	8.717	7.612	101.318	1.00	25.07	H	N

ÁTOMO	1972	CA	ARG	H	44	9.917	6.778	101.151	1.00	27.51	H	C
ÁTOMO	1973	C	ARG	H	44	9.887	6.273	99.709	1.00	27.18	H	C
ÁTOMO	1974	O	ARG	H	44	8.816	5.960	99.168	1.00	23.86	H	O
ÁTOMO	1975	CB	ARG	H	44	9.897	5.561	102.080	1.00	30.75	H	C
ÁTOMO	1976	CG	ARG	H	44	9.672	5.841	103.567	1.00	44.30	H	C
ÁTOMO	1977	CD	ARG	H	44	10.839	6.497	104.317	1.00	61.82	H	C
ÁTOMO	1978	NE	ARG	H	44	12.097	5.755	104.254	1.00	70.52	H	N
ÁTOMO	1979	CZ	ARG	H	44	13.093	5.869	105.139	1.00	63.42	H	C
ÁTOMO	1980	NH1	ARG	H	44	12.985	6.684	106.193	1.00	51.27	H	N
ÁTOMO	1981	NH2	ARG	H	44	14.233	5.217	104.925	1.00	41.30	H	N
ÁTOMO	1982	N	LEU	H	45	11.057	6.234	99.095	1.00	21.99	H	N
ÁTOMO	1983	CA	LEU	H	45	11.181	5.768	97.723	1.00	23.75	H	C
ÁTOMO	1984	C	LEU	H	45	11.637	4.287	97.779	1.00	22.20	H	C
ÁTOMO	1985	O	LEU	H	45	12.519	3.933	98.550	1.00	21.33	H	O
ÁTOMO	1986	CB	LEU	H	45	12.238	6.607	96.978	1.00	20.46	H	C
ÁTOMO	1987	CG	LEU	H	45	11.743	8.037	96.592	1.00	26.15	H	C
ÁTOMO	1988	CD1	LEU	H	45	12.981	8.967	96.324	1.00	19.17	H	C
ÁTOMO	1989	CD2	LEU	H	45	10.849	8.021	95.337	1.00	7.95	H	C
ÁTOMO	1990	N	GLU	H	46	11.037	3.465	96.940	1.00	21.98	H	N
ÁTOMO	1991	CA	GLU	H	46	11.398	2.041	96.915	1.00	26.58	H	C
ÁTOMO	1992	C	GLU	H	46	11.450	1.571	95.478	1.00	21.11	H	C
ÁTOMO	1993	O	GLU	H	46	10.467	1.731	94.751	1.00	22.21	H	O
ÁTOMO	1994	CB	GLU	H	46	10.311	1.189	97.635	1.00	28.65	H	C
ÁTOMO	1995	CG	GLU	H	46	10.123	1.593	99.117	1.00	49.98	H	C
ÁTOMO	1996	CD	GLU	H	46	8.955	0.846	99.817	1.00	62.45	H	C
ÁTOMO	1997	OE1	GLU	H	46	8.157	0.180	99.090	1.00	54.94	H	O
ÁTOMO	1998	OE2	GLU	H	46	8.861	0.923	101.080	1.00	76.63	H	O
ÁTOMO	1999	N	TRP	H	47	12.586	1.015	95.071	1.00	16.27	H	N
ÁTOMO	2000	CA	TRP	H	47	12.708	0.485	93.728	1.00	17.07	H	C
ÁTOMO	2001	C	TRP	H	47	11.769	-0.762	93.679	1.00	15.27	H	C
ÁTOMO	2002	O	TRP	H	47	11.792	-1.584	94.592	1.00	18.79	H	O
ÁTOMO	2003	CB	TRP	H	47	14.181	0.092	93.501	1.00	19.17	H	C
ÁTOMO	2004	CG	TRP	H	47	14.386	-0.878	92.324	1.00	16.79	H	C
ÁTOMO	2005	CD1	TRP	H	47	14.232	-0.609	90.978	1.00	8.71	H	C
ÁTOMO	2006	CD2	TRP	H	47	14.708	-2.240	92.432	1.00	15.94	H	C
ÁTOMO	2007	NE1	TRP	H	47	14.425	-1.758	90.246	1.00	15.37	H	N
ÁTOMO	2008	CE2	TRP	H	47	14.728	-2.771	91.121	1.00	13.73	H	C
ÁTOMO	2009	CE3	TRP	H	47	14.987	-3.087	93.520	1.00	19.49	H	C
ÁTOMO	2010	CZ2	TRP	H	47	15.021	-4.120	90.864	1.00	17.65	H	C
ÁTOMO	2011	CZ3	TRP	H	47	15.280	-4.440	93.257	1.00	11.79	H	C
ÁTOMO	2012	CH2	TRP	H	47	15.293	-4.929	91.945	1.00	16.64	H	C
ÁTOMO	2013	N	VAL	H	48	10.976	-0.857	92.613	1.00	16.40	H	N
ÁTOMO	2014	CA	VAL	H	48	9.980	-1.935	92.400	1.00	20.27	H	C
ÁTOMO	2015	C	VAL	H	48	10.328	-2.961	91.316	1.00	17.27	H	C
ÁTOMO	2016	O	VAL	H	48	9.966	-4.116	91.442	1.00	17.49	H	O
ÁTOMO	2017	CB	VAL	H	48	8.602	-1.279	92.038	1.00	21.34	H	C
ÁTOMO	2018	CG1	VAL	H	48	7.611	-2.301	91.498	1.00	24.15	H	C
ÁTOMO	2019	CG2	VAL	H	48	8.052	-0.607	93.274	1.00	24.24	H	C
ÁTOMO	2020	N	ALA	H	49	11.034	-2.548	90.263	1.00	16.96	H	N
ÁTOMO	2021	CA	ALA	H	49	11.346	-3.493	89.194	1.00	17.77	H	C
ÁTOMO	2022	C	ALA	H	49	12.206	-2.877	88.154	1.00	19.92	H	C
ÁTOMO	2023	O	ALA	H	49	12.109	-1.657	87.912	1.00	24.74	H	O
ÁTOMO	2024	CB	ALA	H	49	10.021	-3.962	88.495	1.00	16.94	H	C
ÁTOMO	2025	N	SER	H	50	12.980	-3.721	87.465	1.00	21.88	H	N
ÁTOMO	2026	CA	SER	H	50	13.807	-3.266	86.363	1.00	21.57	H	C
ÁTOMO	2027	C	SER	H	50	13.754	-4.316	85.265	1.00	21.78	H	C
ÁTOMO	2028	O	SER	H	50	13.545	-5.502	85.563	1.00	23.60	H	O
ÁTOMO	2029	CB	SER	H	50	15.272	-3.137	86.774	1.00	21.45	H	C

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ATOMO 2030 OG  SER H 50      15.460 -2.078  87.683  1.00 21.58 H  O
ATOMO 2031 N   ILE H 51      13.900 -3.849  84.036  1.00 20.05 H  N
ATOMO 2032 CA  ILE H 51      14.003 -4.754  82.858  1.00 17.96 H  C
ATOMO 2033 C   ILE H 51      15.172 -4.273  81.999  1.00 17.53 H  C
ATOMO 2034 O   ILE H 51      15.269 -3.087  81.682  1.00 19.16 H  O
ATOMO 2035 CB  ILE H 51      12.679 -4.795  82.058  1.00 17.66 H  C
ATOMO 2036 CG1 ILE H 51      12.796 -5.869  80.958  1.00 23.68 H  C
ATOMO 2037 CG2 ILE H 51      12.325 -3.407  81.427  1.00 8.10  H  C
ATOMO 2038 CD1 ILE H 51      11.433 -6.214  80.376  1.00 15.41 H  C
ATOMO 2039 N   SER H 52      16.100 -5.176  81.625  1.00 14.90 H  N
ATOMO 2040 CA  SER H 52      17.264 -4.790  80.816  1.00 15.78 H  C
ATOMO 2041 C   SER H 52      16.899 -4.630  79.352  1.00 16.46 H  C
ATOMO 2042 O   SER H 52      15.815 -5.022  78.940  1.00 22.00 H  O
ATOMO 2043 CB  SER H 52      18.384 -5.853  80.913  1.00 15.21 H  C
ATOMO 2044 OG  SER H 52      17.962 -7.063  80.253  1.00 20.35 H  O
ATOMO 2045 N   SER H 53      17.786 -4.068  78.558  1.00 18.03 H  N
ATOMO 2046 CA  SER H 53      17.515 -3.925  77.129  1.00 20.13 H  C
ATOMO 2047 C   SER H 53      17.441 -5.342  76.528  1.00 22.74 H  C
ATOMO 2048 O   SER H 53      16.774 -5.539  75.518  1.00 26.71 H  O
ATOMO 2049 CB  SER H 53      18.645 -3.160  76.445  1.00 20.15 H  C
ATOMO 2050 OG  SER H 53      19.898 -3.829  76.632  1.00 16.33 H  O
ATOMO 2051 N   GLY H 54      18.102 -6.314  77.160  1.00 22.48 H  N
ATOMO 2052 CA  GLY H 54      18.041 -7.697  76.676  1.00 18.24 H  C
ATOMO 2053 C   GLY H 54      16.805 -8.441  77.176  1.00 22.94 H  C
ATOMO 2054 O   GLY H 54      16.562 -9.593  76.800  1.00 22.69 H  O
ATOMO 2055 N   GLY H 55      16.017 -7.799  78.044  1.00 20.19 H  N
ATOMO 2056 CA  GLY H 55      14.806 -8.434  78.547  1.00 15.12 H  C
ATOMO 2057 C   GLY H 55      14.880 -9.146  79.888  1.00 21.67 H  C
ATOMO 2058 O   GLY H 55      13.904 -9.788  80.282  1.00 25.28 H  O
ATOMO 2059 N   ASN H 56      16.014 -9.067  80.586  1.00 21.16 H  N
ATOMO 2060 CA  ASN H 56      16.144 -9.673  81.915  1.00 23.73 H  C
ATOMO 2061 C   ASN H 56      15.330 -8.806  82.892  1.00 23.78 H  C
ATOMO 2062 O   ASN H 56      15.336 -7.577  82.747  1.00 27.58 H  O
ATOMO 2063 CB  ASN H 56      17.589 -9.632  82.392  1.00 29.97 H  C
ATOMO 2064 CG  ASN H 56      18.530 -10.453 81.518  1.00 35.89 H  C
ATOMO 2065 OD1 ASN H 56      19.747 -10.418 81.706  1.00 35.43 H  O
ATOMO 2066 ND2 ASN H 56      17.973 -11.194 80.591  1.00 24.91 H  N
ATOMO 2067 N   THR H 57      14.711 -9.435  83.889  1.00 19.38 H  N
ATOMO 2068 CA  THR H 57      13.896 -8.717  84.883  1.00 16.47 H  C
ATOMO 2069 C   THR H 57      14.475 -8.890  86.270  1.00 19.01 H  C
ATOMO 2070 O   THR H 57      15.104 -9.903  86.583  1.00 21.14 H  O
ATOMO 2071 CB  THR H 57      12.389 -9.200  84.886  1.00 17.39 H  C
ATOMO 2072 OG1 THR H 57      12.332 -10.589 85.205  1.00 25.30 H  O
ATOMO 2073 CG2 THR H 57      11.732 -8.970  83.551  1.00 16.69 H  C
ATOMO 2074 N   TYR H 58      14.232 -7.896  87.129  1.00 20.35 H  N
ATOMO 2075 CA  TYR H 58      14.754 -7.889  88.475  1.00 17.82 H  C
ATOMO 2076 C   TYR H 58      13.674 -7.248  89.364  1.00 17.82 H  C
ATOMO 2077 O   TYR H 58      13.013 -6.261  88.947  1.00 13.98 H  O
ATOMO 2078 CB  TYR H 58      16.014 -7.016  88.550  1.00 16.91 H  C
ATOMO 2079 CG  TYR H 58      17.033 -7.287  87.445  1.00 21.18 H  C
ATOMO 2080 CD1 TYR H 58      16.817 -6.817  86.147  1.00 20.25 H  C
ATOMO 2081 CD2 TYR H 58      18.224 -7.945  87.722  1.00 24.53 H  C
ATOMO 2082 CE1 TYR H 58      17.759 -6.965  85.163  1.00 17.16 H  C
ATOMO 2083 CE2 TYR H 58      19.180 -8.128  86.727  1.00 32.42 H  C
ATOMO 2084 CZ  TYR H 58      18.932 -7.613  85.451  1.00 33.73 H  C
ATOMO 2085 OH  TYR H 58      19.898 -7.689  84.482  1.00 41.39 H  O
ATOMO 2086 N   TYR H 59      13.553 -7.798  90.562  1.00 17.63 H  N
ATOMO 2087 CA  TYR H 59      12.533 -7.347  91.504  1.00 19.97 H  C
ATOMO 2088 C   TYR H 59      12.996 -7.474  92.932  1.00 18.44 H  C
ATOMO 2089 O   TYR H 59      13.779 -8.349  93.253  1.00 24.99 H  O
ATOMO 2090 CB  TYR H 59      11.246 -8.248  91.436  1.00 20.01 H  C
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ÁTOMO	2091	CG	TYR	H	59	10.633	-8.429	90.072	1.00	22.20	H	C
ÁTOMO	2092	CD1	TYR	H	59	10.936	-9.532	89.290	1.00	14.53	H	C
ÁTOMO	2093	CD2	TYR	H	59	9.755	-7.477	89.562	1.00	22.20	H	C
ÁTOMO	2094	CE1	TYR	H	59	10.389	-9.687	88.033	1.00	14.82	H	C
ÁTOMO	2095	CE2	TYR	H	59	9.194	-7.616	88.314	1.00	20.92	H	C
ÁTOMO	2096	CZ	TYR	H	59	9.528	-8.736	87.549	1.00	25.21	H	C
ÁTOMO	2097	OH	TYR	H	59	8.996	-8.828	86.300	1.00	27.97	H	O
ÁTOMO	2098	N	PRO	H	60	12.501	-6.605	93.836	1.00	17.68	H	N
ÁTOMO	2099	CA	PRO	H	60	12.912	-6.760	95.234	1.00	18.52	H	C
ÁTOMO	2100	C	PRO	H	60	11.941	-7.853	95.838	1.00	23.43	H	C
ÁTOMO	2101	O	PRO	H	60	10.854	-8.097	95.286	1.00	21.98	H	O
ÁTOMO	2102	CB	PRO	H	60	12.634	-5.379	95.835	1.00	19.08	H	C
ÁTOMO	2103'	CG	PRO	H	60	11.354	-4.978	95.085	1.00	17.15	H	C
ÁTOMO	2104	CD	PRO	H	60	11.714	-5.373	93.638	1.00	15.96	H	C
ÁTOMO	2105	N	ASP	H	61	12.307	-8.462	96.962	1.00	22.56	H	N
ÁTOMO	2106	CA	ASP	H	61	11.431	-9.496	97.562	1.00	23.00	H	C
ÁTOMO	2107	C	ASP	H	61	10.045	-8.987	97.911	1.00	23.44	H	C
ÁTOMO	2108	O	ASP	H	61	9.095	-9.743	97.919	1.00	26.44	H	O
ÁTOMO	2109	CB	ASP	H	61	12.083	-10.074	98.815	1.00	22.98	H	C
ÁTOMO	2110	CG	ASP	H	61	13.287	-10.902	98.504	1.00	27.24	H	C
ÁTOMO	2111	OD1	ASP	H	61	14.042	-11.166	99.439	1.00	27.26	H	O
ÁTOMO	2112	OD2	ASP	H	61	13.482	-11.273	97.327	1.00	28.00	H	O
ÁTOMO	2113	N	SER	H	62	9.912	-7.685	98.170	1.00	27.64	H	N
ÁTOMO	2114	CA	SER	H	62	8.598	-7.107	98.526	1.00	24.00	H	C
ÁTOMO	2115	C	SER	H	62	7.551	-7.281	97.437	1.00	22.42	H	C
ÁTOMO	2116	O	SER	H	62	6.345	-7.272	97.716	1.00	22.71	H	O
ÁTOMO	2117	CB	SER	H	62	8.751	-5.600	98.863	1.00	22.99	H	C
ÁTOMO	2118	OG	SER	H	62	9.242	-4.893	97.736	1.00	22.44	H	O
ÁTOMO	2119	N	VAL	H	63	7.967	-7.402	96.176	1.00	23.61	H	N
ÁTOMO	2120	CA	VAL	H	63	6.968	-7.562	95.130	1.00	26.04	H	C
ÁTOMO	2121	C	VAL	H	63	7.147	-8.789	94.193	1.00	27.76	H	C
ÁTOMO	2122	O	VAL	H	63	6.301	-9.061	93.346	1.00	28.27	H	O
ÁTOMO	2123	CB	VAL	H	63	6.819	-6.253	94.214	1.00	25.05	H	C
ÁTOMO	2124	CG1	VAL	H	63	6.701	-5.013	95.086	1.00	19.86	H	C
ÁTOMO	2125	CG2	VAL	H	63	7.978	-6.125	93.224	1.00	22.12	H	C
ÁTOMO	2126	N	LYS	H	64	8.263	-9.483	94.325	1.00	34.01	H	N
ÁTOMO	2127	CA	LYS	H	64	8.553	-10.649	93.477	1.00	37.73	H	C
ÁTOMO	2128	C	LYS	H	64	7.431	-11.666	93.629	1.00	36.21	H	C
ÁTOMO	2129	O	LYS	H	64	6.985	-11.943	94.732	1.00	40.72	H	O
ÁTOMO	2130	CB	LYS	H	64	9.870	-11.288	93.897	1.00	40.50	H	C
ÁTOMO	2131	CG	LYS	H	64	10.493	-12.165	92.823	1.00	49.69	H	C
ÁTOMO	2132	CD	LYS	H	64	11.595	-12.977	93.447	1.00	67.46	H	C
ÁTOMO	2133	CE	LYS	H	64	12.336	-13.781	92.388	1.00	84.78	H	C
ÁTOMO	2134	NZ	LYS	H	64	12.931	-15.014	93.018	1.00	92.94	H	N
ÁTOMO	2135	N	GLY	H	65	6.967	-12.177	92.504	1.00	34.99	H	N
ÁTOMO	2136	CA	GLY	H	65	5.876	-13.134	92.522	1.00	33.39	H	C
ÁTOMO	2137	C	GLY	H	65	4.544	-12.447	92.308	1.00	33.65	H	C
ÁTOMO	2138	O	GLY	H	65	3.593	-13.076	91.859	1.00	40.69	H	O
ÁTOMO	2139	N	ARG	H	66	4.471	-11.147	92.609	1.00	29.54	H	N
ÁTOMO	2140	CA	ARG	H	66	3.222	-10.420	92.455	1.00	23.99	H	C
ÁTOMO	2141	C	ARG	H	66	3.205	-9.377	91.343	1.00	27.36	H	C
ÁTOMO	2142	O	ARG	H	66	2.144	-9.079	90.802	1.00	26.62	H	O
ÁTOMO	2143	CB	ARG	H	66	2.872	-9.740	93.767	1.00	24.49	H	C
ÁTOMO	2144	CG	ARG	H	66	2.673	-10.671	94.956	1.00	20.93	H	C
ÁTOMO	2145	CD	ARG	H	66	2.156	-9.875	96.177	1.00	26.28	H	C
ÁTOMO	2146	NE	ARG	H	66	3.013	-8.738	96.549	1.00	26.58	H	N
ÁTOMO	2147	CZ	ARG	H	66	2.590	-7.468	96.631	1.00	23.28	H	C
ÁTOMO	2148	NH1	ARG	H	66	1.325	-7.156	96.356	1.00	20.50	H	N
ÁTOMO	2149	NH2	ARG	H	66	3.429	-6.513	97.026	1.00	23.33	H	N

ÁTOMO	2150	N	PHE	H	67	4.377	-8.805	91.041	1.00	28.25	H	N
ÁTOMO	2151	CA	PHE	H	67	4.527	-7.775	90.002	1.00	28.94	H	C
ÁTOMO	2152	C	PHE	H	67	5.356	-8.293	88.845	1.00	27.61	H	C
ÁTOMO	2153	O	PHE	H	67	6.344	-8.982	89.047	1.00	28.35	H	O
ÁTOMO	2154	CB	PHE	H	67	5.291	-6.533	90.563	1.00	32.76	H	C
ÁTOMO	2155	CG	PHE	H	67	4.496	-5.690	91.510	1.00	35.90	H	C
ÁTOMO	2156	CD1	PHE	H	67	3.336	-6.190	92.108	1.00	32.82	H	C
ÁTOMO	2157	CD2	PHE	H	67	4.934	-4.407	91.843	1.00	27.67	H	C
ÁTOMO	2158	CE1	PHE	H	67	2.620	-5.421	93.032	1.00	37.74	H	C
ÁTOMO	2159	CE2	PHE	H	67	4.236	-3.644	92.758	1.00	34.67	H	C
ÁTOMO	2160	CZ	PHE	H	67	3.081	-4.138	93.358	1.00	41.48	H	C
ÁTOMO	2161	N	THR	H	68	4.962	-7.937	87.637	1.00	28.82	H	N
ÁTOMO	2162	CA	THR	H	68	5.726	-8.301	86.457	1.00	29.24	H	C
ÁTOMO	2163	C	THR	H	68	5.964	-7.073	85.574	1.00	28.81	H	C
ÁTOMO	2164	O	THR	H	68	5.009	-6.399	85.175	1.00	29.95	H	O
ÁTOMO	2165	CB	THR	H	68	4.940	-9.382	85.611	1.00	31.63	H	C
ÁTOMO	2166	OG1	THR	H	68	4.660	-10.484	86.463	1.00	28.51	H	O
ÁTOMO	2167	CG2	THR	H	68	5.735	-9.824	84.396	1.00	17.86	H	C
ÁTOMO	2168	N	ILE	H	69	7.227	-6.779	85.268	1.00	24.66	H	N
ÁTOMO	2169	CA	ILE	H	69	7.546	-5.666	84.369	1.00	25.58	H	C
ÁTOMO	2170	C	ILE	H	69	7.756	-6.235	82.965	1.00	27.22	H	C
ÁTOMO	2171	O	ILE	H	69	8.245	-7.357	82.839	1.00	31.09	H	O
ÁTOMO	2172	CB	ILE	H	69	8.852	-4.947	84.841	1.00	26.43	H	C
ÁTOMO	2173	CG1	ILE	H	69	9.127	-3.732	83.959	1.00	18.67	H	C
ÁTOMO	2174	CG2	ILE	H	69	10.060	-5.907	84.829	1.00	28.93	H	C
ÁTOMO	2175	CD1	ILE	H	69	10.299	-2.888	84.578	1.00	22.12	H	C
ÁTOMO	2176	N	SER	H	70	7.369	-5.492	81.924	1.00	24.59	H	N
ÁTOMO	2177	CA	SER	H	70	7.542	-5.962	80.560	1.00	20.35	H	C
ÁTOMO	2178	C	SER	H	70	7.651	-4.750	79.670	1.00	20.76	H	C
ÁTOMO	2179	O	SER	H	70	7.380	-3.642	80.110	1.00	22.20	H	O
ÁTOMO	2180	CB	SER	H	70	6.326	-6.838	80.156	1.00	18.01	H	C
ÁTOMO	2181	OG	SER	H	70	5.148	-6.082	80.171	1.00	19.53	H	O
ÁTOMO	2182	N	ARG	H	71	8.080	-4.931	78.430	1.00	21.74	H	N
ÁTOMO	2183	CA	ARG	H	71	8.197	-3.810	77.546	1.00	22.80	H	C
ÁTOMO	2184	C	ARG	H	71	7.718	-4.155	76.155	1.00	25.05	H	C
ÁTOMO	2185	O	ARG	H	71	7.855	-5.291	75.693	1.00	28.88	H	O
ÁTOMO	2186	CB	ARG	H	71	9.679	-3.350	77.440	1.00	22.32	H	C
ÁTOMO	2187	CG	ARG	H	71	10.654	-4.473	76.878	1.00	17.63	H	C
ÁTOMO	2188	CD	ARG	H	71	12.132	-4.115	77.230	1.00	13.84	H	C
ÁTOMO	2189	NE	ARG	H	71	12.522	-2.868	76.577	1.00	26.63	H	N
ÁTOMO	2190	CZ	ARG	H	71	13.529	-2.079	76.974	1.00	20.51	H	C
ÁTOMO	2191	NH1	ARG	H	71	14.253	-2.413	78.030	1.00	13.73	H	N
ÁTOMO	2192	NH2	ARG	H	71	13.792	-0.972	76.324	1.00	17.61	H	N
ÁTOMO	2193	N	ASP	H	72	7.190	-3.165	75.464	1.00	24.41	H	N
ÁTOMO	2194	CA	ASP	H	72	6.788	-3.397	74.094	1.00	24.18	H	C
ÁTOMO	2195	C	ASP	H	72	7.709	-2.502	73.272	1.00	25.45	H	C
ÁTOMO	2196	O	ASP	H	72	7.498	-1.297	73.158	1.00	25.31	H	O
ÁTOMO	2197	CB	ASP	H	72	5.333	-2.998	73.865	1.00	27.17	H	C
ÁTOMO	2198	CG	ASP	H	72	4.914	-3.198	72.416	1.00	30.78	H	C
ÁTOMO	2199	OD1	ASP	H	72	5.759	-2.993	71.510	1.00	33.98	H	O
ÁTOMO	2200	OD2	ASP	H	72	3.741	-3.535	72.194	1.00	38.58	H	O
ÁTOMO	2201	N	ASN	H	73	8.752	-3.105	72.711	1.00	26.35	H	N
ÁTOMO	2202	CA	ASN	H	73	9.720	-2.377	71.912	1.00	29.04	H	C
ÁTOMO	2203	C	ASN	H	73	9.235	-1.837	70.569	1.00	31.02	H	C
ÁTOMO	2204	O	ASN	H	73	9.895	-1.011	69.945	1.00	28.40	H	O
ÁTOMO	2205	CB	ASN	H	73	10.958	-3.246	71.675	1.00	31.88	H	C
ÁTOMO	2206	CG	ASN	H	73	11.812	-3.396	72.923	1.00	32.53	H	C
ÁTOMO	2207	OD1	ASN	H	73	11.632	-2.669	73.912	1.00	42.74	H	O

ÁTOMO	2208	ND2	ASN	H	73	12.759	-4.319	72.877	1.00	33.41	H	N
ÁTOMO	2209	N	ALA	H	74	8.076	-2.276	70.115	1.00	32.65	H	N
ÁTOMO	2210	CA	ALA	H	74	7.595	-1.739	68.853	1.00	32.57	H	C
ÁTOMO	2211	C	ALA	H	74	6.852	-0.422	69.164	1.00	33.69	H	C
ÁTOMO	2212	O	ALA	H	74	6.922	0.547	68.421	1.00	31.16	H	O
ÁTOMO	2213	CB	ALA	H	74	6.660	-2.771	68.187	1.00	29.62	H	C
ÁTOMO	2214	N	ARG	H	75	6.189	-0.399	70.311	1.00	32.12	H	N
ÁTOMO	2215	CA	ARG	H	75	5.408	0.758	70.729	1.00	32.75	H	C
ÁTOMO	2216	C	ARG	H	75	6.097	1.695	71.737	1.00	29.96	H	C
ÁTOMO	2217	O	ARG	H	75	5.565	2.771	72.030	1.00	28.48	H	O
ÁTOMO	2218	CB	ARG	H	75	4.071	0.276	71.327	1.00	35.04	H	C
ÁTOMO	2219	CG	ARG	H	75	3.111	-0.412	70.334	1.00	40.61	H	C
ÁTOMO	2220	CD	ARG	H	75	1.825	-0.875	71.046	1.00	61.45	H	C
ÁTOMO	2221	NE	ARG	H	75	0.853	-1.612	70.224	1.00	68.33	H	N
ÁTOMO	2222	CZ	ARG	H	75	1.029	-2.841	69.731	1.00	69.94	H	C
ÁTOMO	2223	NH1	ARG	H	75	2.157	-3.513	69.950	1.00	60.61	H	N
ÁTOMO	2224	NH2	ARG	H	75	0.045	-3.419	69.040	1.00	70.68	H	N
ÁTOMO	2225	N	ASN	H	76	7.271	1.307	72.249	1.00	27.39	H	N
ÁTOMO	2226	CA	ASN	H	76	7.995	2.149	73.236	1.00	22.45	H	C
ÁTOMO	2227	C	ASN	H	76	7.114	2.344	74.461	1.00	24.26	H	C
ÁTOMO	2228	O	ASN	H	76	6.883	3.462	74.915	1.00	27.85	H	O
ÁTOMO	2229	CB	ASN	H	76	8.347	3.546	72.680	1.00	22.88	H	C
ÁTOMO	2230	CG	ASN	H	76	9.606	3.558	71.780	1.00	30.19	H	C
ÁTOMO	2231	OD1	ASN	H	76	10.162	4.622	71.501	1.00	45.69	H	0
ÁTOMO	2232	ND2	ASN	H	76	10.045	2.411	71.354	1.00	27.13	H	N
ÁTOMO	2233	N	ILE	H	77	6.624	1.251	75.001	1.00	20.55	H	N
ÁTOMO	2234	CA	ILE	H	77	5.783	1.289	76.166	1.00	21.43	H	C
ÁTOMO	2235	C	ILE	H	77	6.347	0.293	77.178	1.00	26.35	H	C
ÁTOMO	2236	O	ILE	H	77	6.750	-0.825	76.833	1.00	27.67	H	O
ÁTOMO	2237	CB	ILE	H	77	4.314	0.848	75.819	1.00	25.31	H	C
ÁTOMO	2238	CG1	ILE	H	77	3.752	1.702	74.674	1.00	31.02	H	C
ÁTOMO	2239	CG2	ILE	H	77	3.455	0.930	77.069	1.00	24.50	H	C
ÁTOMO	2240	CD1	ILE	H	77	2.332	1.304	74.167	1.00	18.41	H	C
ÁTOMO	2241	N	LEU	H	78	6.381	0.703	78.436	1.00	27.91	H	N
ÁTOMO	2242	CA	LEU	H	78	6.874	-0.106	79.528	1.00	24.89	H	C
ÁTOMO	2243	C	LEU	H	78	5.645	-0.396	80.365	1.00	24.76	H	C
ÁTOMO	2244	O	LEU	H	78	4.866	0.506	80.598	1.00	25.50	H	O
ÁTOMO	2245	CB	LEU	H	78	7.851	0.727	80.405	1.00	24.49	H	C
ÁTOMO	2246	CG	LEU	H	78	8.376	0.043	81.650	1.00	18.05	H	C
ÁTOMO	2247	CD1	LEU	H	78	9.449	-1.026	81.241	1.00	27.00	H	C
ÁTOMO	2248	CD2	LEU	H	78	9.068	1.102	82.532	1.00	15.70	H	C
ÁTOMO	2249	N	TYR	H	79	5.484	-1.630	80.833	1.00	26.11	H	N
ÁTOMO	2250	CA	TYR	H	79	4.330	-1.997	81.662	1.00	25.62	H	C
ÁTOMO	2251	C	TYR	H	79	4.720	-2.514	83.014	1.00	27.75	H	C
ÁTOMO	2252	O	TYR	H	79	5.827	-3.036	83.193	1.00	29.83	H	O
ÁTOMO	2253	CB	TYR	H	79	3.525	-3.156	80.994	1.00	22.60	H	C
ÁTOMO	2254	CG	TYR	H	79	2.952	-2.791	79.652	1.00	27.08	H	C
ÁTOMO	2255	CD1	TYR	H	79	3.565	-3.195	78.479	1.00	20.92	H	C
ÁTOMO	2256	CD2	TYR	H	79	1.791	-2.020	79.556	1.00	24.64	H	C
ÁTOMO	2257	CE1	TYR	H	79	3.048	-2.848	77.247	1.00	24.71	H	C
ÁTOMO	2258	CE2	TYR	H	79	1.277	-1.668	78.323	1.00	21.72	H	C
ÁTOMO	2259	CZ	TYR	H	79	1.908	-2.084	77.173	1.00	24.82	H	C
ÁTOMO	2260	OH	TYR	H	79	1.423	-1.711	75.935	1.00	21.43	H	O
ÁTOMO	2261	N	LEU	H	80	3.779	-2.429	83.964	1.00	25.48	H	N
ÁTOMO	2262	CA	LEU	H	80	3.947	-3.007	85.272	1.00	25.75	H	C
ÁTOMO	2263	C	LEU	H	80	2.592	-3.669	85.596	1.00	27.57	H	C
ÁTOMO	2264	O	LEU	H	80	1.599	-2.983	85.835	1.00	34.28	H	O
ÁTOMO	2265	CB	LEU	H	80	4.245	-1.992	86.409	1.00	25.22	H	C
ÁTOMO	2266	CG	LEU	H	80	4.468	-2.735	87.754	1.00	26.52	H	C
ÁTOMO	2267	CD1	LEU	H	80	5.836	-3.504	87.721	1.00	18.29	H	C

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ÁTOMO	2268	CD2	LEU H	80	4.552	-1.721	88.992	1.00	20.69	H	C
ÁTOMO	2269	N	GLN H	81	2.550	-4.993	85.563	1.00	30.10	H	N
ÁTOMO	2270	CA	GLN H	81	1.318	-5.716	85.905	1.00	32.07	H	C
ÁTOMO	2271	C	GLN H	81	1.409	-6.033	87.376	1.00	30.52	H	C
ÁTOMO	2272	O	GLN H	81	2.379	-6.674	87.832	1.00	30.77	H	O
ÁTOMO	2273	CB	GLN H	81	1.224	-7.029	85.104	1.00	34.27	H	C
ÁTOMO	2274	CG	GLN H	81	0.084	-7.955	85.580	1.00	36.03	H	C
ÁTOMO	2275	CD	GLN H	81	-1.266	-7.341	85.316	1.00	40.10	H	C
ÁTOMO	2276	OE1	GLN H	81	-2.047	-7.096	86.248	1.00	35.51	H	O
ÁTOMO	2277	NE2	GLN H	81	-1.543	-7.047	84.053	1.00	29.75	H	N
ÁTOMO	2278	N	MET H	82	0.428	-5.573	88.153	1.00	29.32	H	N
ÁTOMO	2279	CA	MET H	82	0.446	-5.840	89.579	1.00	31.69	H	C
ÁTOMO	2280	C	MET H	82	-0.719	-6.757	89.911	1.00	33.42	H	C
ÁTOMO	2281	O	MET H	82	-1.784	-6.580	89.386	1.00	37.22	H	O
ÁTOMO	2282	CB	MET H	82	0.305	-4.526	90.380	1.00	32.57	H	C
ÁTOMO	2283	CG	MET H	82	1.424	-3.501	90.097	1.00	34.83	H	C
ÁTOMO	2284	SD	MET H	82	1.236	-1.930	91.036	1.00	41.35	H	S
ÁTOMO	2285	CE	MET H	82	0.076	-1.286	90.153	1.00	21.34	H	C
ÁTOMO	2286	N	SER H	82A	-0.500	-7.722	90.789	1.00	33.87	H	N
ÁTOMO	2287	CA	SER H	82A	-1.553	-8.656	91.161	1.00	32.69	H	C
ÁTOMO	2288	C	SER H	82A	-1.455	-8.809	92.664	1.00	30.35	H	C
ÁTOMO	2289	O	SER H	82A	-0.448	-8.439	93.253	1.00	27.66	H	O
ÁTOMO	2290	CB	SER H	82A	-1.309	-10.011	90.445	1.00	30.90	H	C
ÁTOMO	2291	OG	SER H	82A	-0.074	-10.562	90.886	1.00	39.97	H	O
ÁTOMO	2292	N	SER H	82B	-2.456	-9.444	93.270	1.00	30.11	H	N
ÁTOMO	2293	CA	SER H	82B	-2.532	-9.614	94.738	1.00	32.59	H	C
ÁTOMO	2294	C	SER H	82B	-2.084	-8.329	95.464	1.00	34.41	H	C
ÁTOMO	2295	O	SER H	82B	-1.256	-8.387	96.386	1.00	34.38	H	O
ÁTOMO	2296	CB	SER H	82B	-1.670	-10.769	95.249	1.00	31.62	H	C
ÁTOMO	2297	OG	SER H	82B	-1.941	-11.975	94.545	1.00	39.73	H	O
ÁTOMO	2298	N	LEU H	82C	-2.646	-7.194	95.050	1.00	34.50	H	N
ÁTOMO	2299	CA	LEU H	82C	-2.300	-5.892	95.687	1.00	34.52	H	C
ÁTOMO	2300	C	LEU H	82C	-2.677	-5.867	97.154	1.00	33.77	H	C
ÁTOMO	2301	O	LEU H	82C	-3.731	-6.405	97.563	1.00	36.50	H	O
ÁTOMO	2302	CB	LEU H	82C	-2.965	-4.745	94.923	1.00	31.33	H	C
ÁTOMO	2303	CG	LEU H	82C	-2.300	-4.508	93.556	1.00	29.69	H	C
ÁTOMO	2304	CD1	LEU H	82C	-3.142	-3.680	92.586	1.00	14.81	H	C
ÁTOMO	2305	CD2	LEU H	82C	-0.928	-3.764	93.850	1.00	22.96	H	C
ÁTOMO	2306	N	ARG H	83	-1.794	-5.270	97.953	1.00	37.50	H	N
ÁTOMO	2307	CA	ARG H	83	-1.967	-5.119	99.404	1.00	37.28	H	C
ÁTOMO	2308	C	ARG H	83	-2.044	-3.624	99.699	1.00	35.39	H	C
ÁTOMO	2309	O	ARG H	83	-1.641	-2.802	98.859	1.00	34.41	H	O
ÁTOMO	2310	CB	ARG H	83	-0.753	-5.691	100.115	1.00	35.83	H	C
ÁTOMO	2311	CG	ARG H	83	-0.474	-7.134	99.749	1.00	44.13	H	C
ÁTOMO	2312	CD	ARG H	83	0.963	-7.485	100.035	1.00	58.61	H	C
ÁTOMO	2313	NE	ARG H	83	1.255	-8.881	99.733	1.00	65.92	H	N
ÁTOMO	2314	CZ	ARG H	83	2.452	-9.433	99.885	1.00	68.29	H	C
ÁTOMO	2315	NH1	ARG H	83	3.467	-8.701	100.328	1.00	66.48	H	N
ÁTOMO	2316	NH2	ARG H	83	2.628	-10.727	99.618	1.00	76.67	H	N
ÁTOMO	2317	N	SER H	84	-2.518	-3.268	100.887	1.00	33.54	H	N
ÁTOMO	2318	CA	SER H	84	-2.634	-1.854	101.209	1.00	31.43	H	C
ÁTOMO	2319	C	SER H	84	-1.268	-1.181	101.096	1.00	30.46	H	C
ÁTOMO	2320	O	SER H	84	-1.188	-0.048	100.617	1.00	27.90	H	O
ÁTOMO	2321	CB	SER H	84	-3.221	-1.658	102.606	1.00	32.69	H	C
ÁTOMO	2322	OG	SER H	84	-2.301	-1.987	103.617	1.00	45.64	H	O
ÁTOMO	2323	N	GLU H	85	-0.218	-1.906	101.491	1.00	27.55	H	N
ÁTOMO	2324	CA	GLU H	85	1.174	-1.437	101.453	1.00	28.67	H	C
ÁTOMO	2325	C	GLU H	85	1.693	-1.073	100.071	1.00	27.89	H	C

ÁTOMO	2326	O	GLU H	85	2.728	-0.431	99.984	1.00	31.91	H	O
ÁTOMO	2327	CB	GLU H	85	2.153	-2.463	102.036	1.00	28.80	H	C
ÁTOMO	2328	CG	GLU H	85	1.715	-3.123	103.296	1.00	46.74	H	C
ÁTOMO	2329	CD	GLU H	85	0.844	-4.321	103.003	1.00	56.38	H	C
ÁTOMO	2330	OE1	GLU H	85	1.397	-5.388	102.632	1.00	62.51	H	O
ÁTOMO	2331	OE2	GLU H	85	-0.389	-4.180	103.105	1.00	56.24	H	O
ÁTOMO	2332	N	ASP H	86	1.030	-1.524	99.009	1.00	25.29	H	N
ÁTOMO	2333	CA	ASP H	86	1.429	-1.160	97.655	1.00	25.71	H	C
ÁTOMO	2334	C	ASP H	86	0.845	0.226	97.273	1.00	26.77	H	C
ÁTOMO	2335	O	ASP H	86	1.075	0.712	96.147	1.00	25.68	H	O
ÁTOMO	2336	CB	ASP H	86	0.906	-2.178	96.624	1.00	26.58	H	C
ÁTOMO	2337	CG	ASP H	86	1.418	-3.603	96.877	1.00	32.52	H	C
ÁTOMO	2338	OD1	ASP H	86	0.586	-4.562	96.763	1.00	30.42	H	0
ÁTOMO	2339	OD2	ASP H	86	2.627	-3.765	97.172	1.00	29.99	H	O
ÁTOMO	2340	N	THR H	87	0.072	0.851	98.176	1.00	23.93	H	N
ÁTOMO	2341	CA	THR H	87	-0.531	2.165	97.842	1.00	23.44	H	C
ÁTOMO	2342	C	THR H	87	0.661	3.163	97.690	1.00	22.23	H	C
ÁTOMO	2343	O	THR H	87	1.447	3.314	98.591	1.00	21.36	H	O
ÁTOMO	2344	CB	THR H	87	-1.458	2.654	98.956	1.00	26.73	H	C
ÁTOMO	2345	OG1	THR H	87	-2.623	1.808	98.992	1.00	26.03	H	O
ÁTOMO	2346	CG2	THR H	87	-1.881	4.145	98.709	1.00	28.47	H	C
ÁTOMO	2347	N	ALA H	88	0.722	3.845	96.568	1.00	19.07	H	N
ÁTOMO	2348	CA	ALA H	88'	1.889	4.717	96.354	1.00	17.45	H	C
ÁTOMO	2349	C	ALA H	88	1.815	5.404	95.052	1.00	21.75	H	C
ÁTOMO	2350	O	ALA H	88	0.972	5.103	94.182	1.00	21.21	H	O
ÁTOMO	2351	CB	ALA H	88	3.162	3.843	96.361	1.00	14.94	H	C
ÁTOMO	2352	N	MET H	89	2.746	6.358	94.868	1.00	22.41	H	N
ÁTOMO	2353	CA	MET H	89	2.827	7.001	93.570	1.00	24.72	H	C
ÁTOMO	2354	C	MET H	89	3.794	6.092	92.835	1.00	22.60	H	C
ÁTOMO	2355	O	MET H	89	4.839	5.790	93.399	1.00	26.75	H	O
ÁTOMO	2356	CB	MET H	89	3.516	8.378	93.679	1.00	24.18	H	C
ÁTOMO	2357	CG	MET H	89	3.623	9.117	92.352	1.00	24.57	H	C
ÁTOMO	2358	SD	MET H	89	2.092	9.565	91.500	1.00	31.14	H	S
ÁTOMO	2359	CE	MET H	89	1.586	10.985	92.556	1.00	17.32	H	C
ÁTOMO	2360	N	TYR H	90	3.478	5.699	91.598	1.00	19.66	H	N
ÁTOMO	.2361	CA	TYR H	90	4.390	4.838	90.830	1.00	18.76	H	C
ÁTOMO	2362	C	TYR H	90	5.026	5.618	89.717	1.00	19.48	H	C
ÁTOMO	2363	O	TYR H	90	4.343	6.131	88.836	1.00	18.22	H	O
ÁTOMO	2364	CB	TYR H	90	3.643	3.600	90.214	1.00	16.54	H	C
ÁTOMO	2365	CG	TYR H	90	3.375	2.566	91.286	1.00	14.14	H	C
ÁTOMO	2366	CD1	TYR H	90	4.172	1.427	91.392	1.00	9.33	H	C
ÁTOMO	2367	CD2	TYR H	90	2.376	2.772	92.251	1.00	22.63	H	C
ÁTOMO	2368	CE1	TYR H	90	3.988	0.522	92.425	1.00	15.98	H	C
ÁTOMO	2369	CE2	TYR H	90	2.197	1.887	93.285	1.00	13.30	H	C
ÁTOMO	2370	CZ	TYR H	90	3.009	0.760	93.361	1.00	24.24	H	C
ÁTOMO	2371	OH	TYR H	90	2.835	-0.114	94.384	1.00	21.02	H	O
ÁTOMO	2372	N	TYR H	91	6.368	5.669	89.721	1.00	20.31	H	N
ÁTOMO	2373	CA	TYR H	91	7.094	6.384	88.651	1.00	17.12	H	C
ÁTOMO	2374	C	TYR H	91	7.769	5.400	87.681	1.00	19.92	H	C
ÁTOMO	2375	O	TYR H	91	8.393	4.441	88.121	1.00	18.18	H	O
ÁTOMO	2376	CB	TYR H	91	8.251	7.216	89.226	1.00	15.44	H	C
ÁTOMO	2377	CG	TYR H	91	7.793	8.338	90.138	1.00	17.08	H	C
ÁTOMO	2378	CD1	TYR H	91	7.818	8.208	91.507	1.00	9.66	H	C
ÁTOMO	2379	CD2	TYR H	91	7.339	9.525	89.589	1.00	15.29	H	C
ÁTOMO	2380	CE1	TYR H	91	7.408	9.260	92.338	1.00	16.34	H	C
ÁTOMO	2381	CE2	TYR H	91	6.901	10.577	90.398	1.00	15.56	H	C
ÁTOMO	2382	CZ	TYR H	91	6.944	10.446	91.755	1.00	21.42	H	C
ÁTOMO	2383	OH	TYR H	91	6.544	11.517	92.547	1.00	8.81	H	O
ÁTOMO	2384	N	CYS H	92	7.650	5.733	86.397	1.00	21.55	H	N

ATOMO	2385	CA	CYS	H	92	8.311	5.065	85.278	1.00	22.10	H	C
ATOMO	2386	C	CYS	H	92	9.709	5.751	85.270	1.00	20.94	H	C
ATOMO	2387	O	CYS	H	92	9.771	6.959	85.435	1.00	20.43	H	O
ATOMO	2388	CB	CYS	H	92	7.602	5.498	83.987	1.00	18.81	H	C
ATOMO	2389	SG	CYS	H	92	8.429	4.801	82.569	1.00	32.60	H	S
ATOMO	2390	N	ALA	H	93	10.805	5.022	85.095	1.00	18.52	H	N
ATOMO	2391	CA	ALA	H	93	12.107	5.684	85.085	1.00	15.79	H	C
ATOMO	2392	C	ALA	H	93	13.066	5.019	84.068	1.00	15.40	H	C
ATOMO	2393	O	ALA	H	93	13.031	3.780	83.898	1.00	20.16	H	O
ATOMO	2394	CB	ALA	H	93	12.737	5.604	86.462	1.00	16.78	H	C
ATOMO	2395	N	ARG	H	94	13.898	5.821	83.402	1.00	15.89	H	N
ATOMO	2396	CA	ARG	H	94	14.873	5.224	82.480	1.00	17.43	H	C
ATOMO	2397	C	ARG	H	94	16.031	4.849	83.374	1.00	17.10	H	C
ATOMO	2398	O	ARG	H	94	16.607	5.705	84.058	1.00	16.11	H	O
ATOMO	2399	CB	ARG	H	94	15.325	6.211	81.417	1.00	13.45	H	C
ATOMO	2400	CG	ARG	H	94	16.050	5.523	80.238	1.00	15.86	H	C
ATOMO	2401	CD	ARG	H	94	16.477	6.566	79.242	1.00	13.79	H	C
ATOMO	2402	NE	ARG	H	94	17.730	7.229	79.580	1.00	17.29	H	N
ATOMO	2403	CZ	ARC	H	94	18.301	8.146	78.818	1.00	20.35	H	C
ATOMO	2404	NH1	ARG	H	94	17.705	8.549	77.664	1.00	13.04	H	N
ATOMO	2405	NH2	ARG	H	94	19.520	8.602	79.142	1.00	15.82	H	N
ATOMO	2406	N	LEU	H	95	16.397	3.565	83.350	1.00	19.09	H	N
ATOMO	2407	CA	LEU	H	95	17.469	3.079	84.217	1.00	17.64	H	C
ATOMO	2408	C	LEU	H	95	18.737	3.085	83.375	1.00	19.46	H	C
ATOMO	2409	O	LEU	H	95	18.912	2.219	82.515	1.00	20.81	H	O
ATOMO	2410	CB	LEU	H	95	17.117	1.676	84.700	1.00	16.97	H	C
ATOMO	2411	CG	LEU	H	95	18.301	1.013	85.430	1.00	19.81	H	C
ATOMO	2412	CD1	LEU	H	95	18.891	2.007	86.390	1.00	26.56	H	C
ATOMO	2413	CD2	LEU	H	95	17.837	-0.192	86.136	1.00	17.57	H	C
ATOMO	2414	N	ASP	H	96	19.597	4.078	83.580	1.00	18.64	H	N
ATOMO	2415	CA	ASP	H	96	20.811	4.187	82.758	1.00	18.97	H	C
ATOMO	2416	C	ASP	H	96	21.900	3.220	83.242	1.00	18.94	H	C
ATOMO	2417	O	ASP	H	96	22.915	3.065	82.569	1.00	14.63	H	O
ATOMO	2418	CB	ASP	H	96	21.338	5.617	82.723	1.00	20.09	H	C
ATOMO	2419	CG	ASP	H	96	20.502	6.519	81.755	1.00	19.58	H	C
ATOMO	2420	OD1	ASP	H	96	19.319	6.184	81.578	1.00	26.69	H	O
ATOMO	2421	OD2	ASP	H	96	21.002	7.513	81.224	1.00	11.72	H	O
ATOMO	2422	N	GLY	H	97	21.663	2.627	84.402	1.00	15.66	H	N
ATOMO	2423	CA	GLY	H	97	22.574	1.601	84.922	1.00	16.17	H	C
ATOMO	2424	C	GLY	H	97	23.126	1.821	86.310	1.00	16.48	H	C
ATOMO	2425	O	GLY	H	97	23.064	2.935	86.841	1.00	14.75	H	O
ATOMO	2426	N	TYR	H	98	23.737	0.782	86.887	1.00	12.61	H	N
ATOMO	2427	CA	TYR	H	98	24.259	0.958	88.226	1.00	13.48	H	C
ATOMO	2428	C	TYR	H	98	25.374	2.029	88.271	1.00	14.66	H	C
ATOMO	2429	O	TYR	H	98	25.598	2.639	89.299	1.00	15.42	H	O
ATOMO	2430	CB	TYR	H	98	24.709	-0.385	88.870	1.00	15.11	H	C
ATOMO	2431	CG	TYR	H	98	25.762	-1.194	88.104	1.00	12.19	H	C
ATOMO	2432	CD1	TYR	H	98	27.123	-1.116	88.450	1.00	18.17	H	C
ATOMO	2433	CD2	TYR	H	98	25.384	-2.089	87.124	1.00	12.48	H	C
ATOMO	2434	CE1	TYR	H	98	28.089	-1.955	87.822	1.00	18.60	H	C
ATOMO	2435	CE2	TYR	H	98	26.330	-2.917	86.489	1.00	8.78	H	C
ATOMO	2436	CZ	TYR	H	98	27.651	-2.853	86.838	1.00	9.46	H	C
ATOMO	2437	OH	TYR	H	98	28.553	-3.723	86.277	1.00	13.71	H	O
ATOMO	2438	N	TYR	H	99	26.025	2.308	87.154	1.00	10.25	H	N
ATOMO	2439	CA	TYR	H	99	27.038	3.382	87.160	1.00	11.42	H	C
ATOMO	2440	C	TYR	H	99	26.476	4.782	86.874	1.00	13.38	H	C
ATOMO	2441	O	TYR	H	99	27.213	5.755	86.930	1.00	11.93	H	O
ATOMO	2442	CB	TYR	H	99	28.127	3.102	86.073	1.00	9.58	H	C
ATOMO	2443	CG	TYR	H	99	29.112	2.030	86.522	1.00	11.24	H	C
ATOMO	2444	CD1	TYR	H	99	29.940	2.265	87.613	1.00	16.63	H	C
ATOMO	2445	CD2	TYR	H	99	29.206	0.785	85.850	1.00	15.72	H	C
ATOMO	2446	CE1	TYR	H	99	30.872	1.295	88.063	1.00	17.96	H	C
ATOMO	2447	CE2	TYR	H	99	30.145	-0.222	86.275	1.00	20.42	H	C

ÁTOMO	2448	CZ	TYR H	99	30.951	0.069	87.386	1.00	16.74	H	C
ÁTOMO	2449	OH	TYR H	99	31.813	-0.917	87.795	1.00	14.93	H	O
ÁTOMO	2450	N	PHE H	100	25.185	4.855	86.518	1.00	14.05	H	N
ÁTOMO	2451	CA	PHE H	100	24.563	6.095	86.063	1.00	12.94	H	C
ÁTOMO	2452	C	PHE H	100	23.283	6.544	86.789	1.00	15.00	H	C
ÁTOMO	2453	O	PHE H	100	22.930	7.725	86.705	1.00	16.90	H	O
ÁTOMO	2454	CB	PHE H	100	24.268	5.977	84.529	1.00	13.53	H	C
ÁTOMO	2455	CG	PHE H	100	25.550	5.835	83.677	1.00	12.84	H	C
ÁTOMO	2456	CD1	PHE H	100	25.918	4.597	83.136	1.00	12.65	H	C
ÁTOMO	2457	CD2	PHE H	100	26.353	6.921	83.426	1.00	15.24	H	C
ÁTOMO	2458	CE1	PHE H	100	27.068	4.469	82.358	1.00	12.14	H	C
ÁTOMO	2459	CE2	PHE H	100	27.515	6.797	82.639	1.00	14.00	H	C
ÁTOMO	2460	CZ	PHE H	100	27.862	5.563	82.110	1.00	12.32	H	C
ÁTOMO	2461	N	GLY H	100A	22.604	5.615	87.466	1.00	13.85	H	N
ÁTOMO	2462	CA	GLY H	100A	21.381	5.986	88.197	1.00	12.56	H	C
ÁTOMO	2463	C	GLY H	100A	20.108	6.047	87.364	1.00	13.56	H	C
ÁTOMO	2464	O	GLY H	100A	20.105	5.714	86.192	1.00	16.72	H	O
ÁTOMO	2465	N	PHE H	100B	19.013	6.516	87.980	1.00	14.22	H	N
ÁTOMO	2466	CA	PHE H	100B	17.722	6.639	87.266	1.00	16.09	H	C
ÁTOMO	2467	C	PHE H	100B	17.797	8.041	86.665	1.00	19.51	H	C
ÁTOMO	2468	O	PHE H	100E	17.537	9.028	87.347	1.00	18.58	H	O
ÁTOMO	2469	CB	PHE H	100B	16.579	6.550	88.321	1.00	15.67	H	C
ÁTOMO	2470	CG	PHE H	100B	16.435	5.181	88.952	1.00	17.58	H	C
ÁTOMO	2471	CD1	PHE H	100B	16.614	5.011	90.323	1.00	12.85	H	C
ÁTOMO	2472	CD2	PHE H	100E	16.074	4.069	88.177	1.00	13.17	H	C
ÁTOMO	2473	CE1	PHE H	100B	16.444	3.764	90.923	1.00	13.91	H	C
ÁTOMO	2474	CE2	PHE H	100E	15.903	2.799	88.792	1.00	12.44	H	C
ÁTOMO	2475	CZ	PHE H	100B	16.083	2.656	90.155	1.00	9.26	H	C
ÁTOMO	2476	N	ALA H	101	18.098	8.123	85.364	1.00	20.24	H	N
ÁTOMO	2477	CA	ALA H	101	18.375	9.418	84.778	1.00	16.38	H	C
ÁTOMO	2478	C	ALA H	101	17.175	10.278	84.391	1.00	17.03	H	C
ÁTOMO	2479	O	ALA H	101	17.295	11.489	84.348	1.00	21.31	H	O
ÁTOMO	2480	CB	ALA H	101	19.295	9.264	83.594	1.00	13.65	H	C
ÁTOMO	2481	N	TYR H	102	16.043	9.647	84.130	1.00	18.14	H	N
ÁTOMO	2482	CA	TYR H	102	14.816	10.361	83.745	1.00	17.04	H	C
ÁTOMO	2483	C	TYR H	102	13.645	9.693	84.420	1.00	17.35	H	C
ÁTOMO	2484	O	TYR H	102	13.572	8.471	84.472	1.00	14.92	H	O
ÁTOMO	2485	CB	TYR H	102	14.593	10.296	82.235	1.00	17.95	H	C
ÁTOMO	2486	CG	TYR H	102	15.585	11.140	81.523	1.00	20.25	H	C
ÁTOMO	2487	CD1	TYR H	102	16.757	10.591	81.028	1.00	20.01	H	C
ÁTOMO	2488	CD2	TYR H	102	15.402	12.513	81.456	1.00	20.00	H	C
ÁTOMO	2489	CE1	TYR H	102	17.747	11.421	80.471	1.00	16.24	H	C
ÁTOMO	2490	CE2	TYR H	102	16.372	13.343	80.911	1.00	15.52	H	C
ÁTOMO	2491	CZ	TYR H	102	17.537	12.782	80.419	1.00	17.92	H	C
ÁTOMO	2492	OH	TYR H	102	18.475	13.602	79.832	1.00	32.99	H	O
ÁTOMO	2493	N	TRP H	103	12.728	10.512	84.921	1.00	17.03	H	N
ÁTOMO	2494	CA	TRP H	103	11.564	10.003	85.632	1.00	17.00	H	C
ÁTOMO	2495	C	TRP H	103	10.299	10.565	85.009	1.00	15.31	H	C
ÁTOMO	2496	O	TRP H	103	10.306	11.676	84.472	1.00	18.72	H	O
ÁTOMO	2497	CB	TRP H	103	11.595	10.459	87.110	1.00	18.58	H	C
ÁTOMO	2498	CG	TRP H	103	12.760	9.947	87.947	1.00	22.42	H	C
ÁTOMO	2499	CD1	TRP H	103	14.090	10.198	87.721	1.00	10.35	H	C
ÁTOMO	2500	CD2	TRP H	103	12.685	9.164	89.135	1.00	13.24	H	C
ÁTOMO	2501	NE1	TRP H	103	14.852	9.613	88.706	1.00	24.99	H	N
ÁTOMO	2502	CE2	TRP H	103	14.024	8.968	89.590	1.00	11.38	H	C
ÁTOMO	2503	CE3	TRP H	103	11.623	8.607	89.878	1.00	13.12	H	C
ÁTOMO	2504	CZ2	TRP H	103	14.328	8.251	90.710	1.00	9.14	H	C
ÁTOMO	2505	CZ3	TRP H	103	11.925	7.888	91.015	1.00	13.82	H	C
ÁTOMO	2506	CH2	TRP H	103	13.281	7.709	91.426	1.00	13.97	H	C

ÁTOMO	2507	N	GLY H	104	9.216	9.792	85.071	1.00	16.98	H	N
ÁTOMO	2508	CA	GLY H	104	7.947	10.303	84.542	1.00	20.03	H	C
ÁTOMO	2509	C	GLY H	104	7.258	11.169	85.604	1.00	22.00	H	C
ÁTOMO	2510	O	GLY H	104	7.886	11.535	86.606	1.00	22.60	H	O
ÁTOMO	2511	N	ALA H	105	5.979	11.508	85.400	1.00	24.52	H	N
ÁTOMO	2512	CA	ALA H	105	5.284	12.344	86.356	1.00	23.39	H	C
ÁTOMO	2513	C	ALA H	105	4.649	11.524	87.468	1.00	21.52	H	C
ÁTOMO	2514	O	ALAH	105	4.218	12.078	88.465	1.00	24.75	H	O
ÁTOMO	2515	CB	ALA H	105	4.185	13.220	85.606	1.00	24.94	H	C
ÁTOMO	2516	N	GLY H	106	4.600	10.191	87.314	1.00	21.97	H	N
ÁTOMO	2517	CA	GLY H	106	4.128	9.196	88.266	1.00	23.66	H	C
ÁTOMO	2518	C	GLY H	106	2.610	9.025	88.183	1.00	23.03	H	C
ÁTOMO	2519	O	GLY H	106	1.872	9.910	87.772	1.00	24.09	H	O
ÁTOMO	2520	N	THR H	107	2.160	7.813	88.554	1.00	22.71	H	N
ÁTOMO	2521	CA	THR H	107	0.727	7.542	88.566	1.00	21.91	H	C
ÁTOMO	2522	C	THR H	107	0.306	6.924	89.901	1.00	21.11	H	C
ÁTOMO	2523	O	THR H	107	0.862	5.939	90.367	1.00	18.20	H	O
ÁTOMO	2524	CB	THR H	107	0.421	6.574	87.423	1.00	27.94	H	C
ÁTOMO	2525	OG1	THR H	107	-0.995	6.432	87.297	1.00	33.93	H	O
ÁTOMO	2526	CG2	THR H	107	1.030	5.202	87.728	1.00	17.61	H	C
ÁTOMO	2527	N	LEU H	108	-0.687	7.564	90.541	1.00	24.58	H	N
ÁTOMO	2528	CA	LEU H	108	-1.066	7.139	91.886	1.00	25.53	H	C
ÁTOMO	2529	C	LEU H	108	-1.862	5.831	91.887	1.00	21.65	H	C
ÁTOMO	2530	O	LEU H	108	-2.801	5.630	91.129	1.00	23.64	H	O
ÁTOMO	2531	CB	LEU H	108	-1.900	8.252	92.519	1.00	30.90	H	C
ÁTOMO	2532	CG	LEU H	108	-1.075	9.150	93.442	1.00	20.00	H	C
ÁTOMO	2533	CD1	LEU H	108	-1.415	10.631	93.266	1.00	20.00	H	C
ÁTOMO	2534	CD2	LEU H	108	-1.299	8.835	94.921	1.00	20.00	H	C
ÁTOMO	2535	N	VAL H	109	-1.423	4.903	92.760	1.00	22.28	H	N
ÁTOMO	2536	CA	VAL H	109	-2.177	3.669	92.946	1.00	22.76	H	C
ÁTOMO	2537	C	VAL H	109	-2.662	3.531	94.390	1.00	25.97	H	C
ÁTOMO	2538	O	VAL H	109	-1.892	3.509	95.340	1.00	22.42	H	O
ÁTOMO	2539	CB	VAL H	109	-1.276	2.487	92.593	1.00	22.61	H	C
ÁTOMO	2540	CG1	VAL H	109	-1.965	1.180	92.982	1.00	12.42	H	C
ÁTOMO	2541	CG2	VAL H	109	-0.991	2.473	91.104	1.00	15.97	H	C
ÁTOMO	2542	N	ALA H	110	-3.995	3.473	94.541	1.00	27.50	H	N
ÁTOMO	2543	CA	ALA H	110	-4.549	3.344	95.883	1.00	34.16	H	C
ÁTOMO	2544	C	ALA H	110	-5.218	1.984	96.096	1.00	30.55	H	C
ÁTOMO	2545	O	ALA H	110	-6.145	1.604	95.393	1.00	28.32	H	O
ÁTOMO	2546	CB	ALA H	110	-5.561	4.471	96.092	1.00	34.67	H	C
ÁTOMO	2547	N	VAL H	111	-4.788	1.231	97.090	1.00	29.84	H	N
ÁTOMO	2548	CA	VAL H	111	-5.337	-0.096	97.338	1.00	31.80	H	C
ÁTOMO	2549	C	VAL H	111	-6.192	0.068	98.562	1.00	31.94	H	C
ÁTOMO	2550	O	VAL H	111	-5.686	0.211	99.660	1.00	31.65	H	O
ÁTOMO	2551	CB	VAL H	111	-4.207	-1.118	97.630	1.00	34.06	H	C
ÁTOMO	2552	CG1	VAL H	111	-4.820	-2.488	97.985	1.00	31.41	H	C
ÁTOMO	2553	CG2	VAL H	111	-3.279	-1.246	96.368	1.00	27.16	H	C
ÁTOMO	2554	N	SER H	112	-7.506	0.047	98.345	1.00	33.05	H	N
ÁTOMO	2555	CA	SER H	112	-8.423	0.257	99.431	1.00	33.70	H	C
ÁTOMO	2556	C	SER H	112	-9.780	-0.337	99.112	1.00	36.79	H	C
ÁTOMO	2557	O	SER H	112	-10.182	-0.482	97.946	1.00	37.17	H	O
ÁTOMO	2558	CB	SER H	112	-8.603	1.761	99.645	1.00	32.72	H	C
ÁTOMO	2559	OG	SER H	112	-9.559	2.071	100.646	1.00	26.84	H	O
ÁTOMO	2560	N	ALA H	113	-10.487	-0.646	100.169	1.00	38.98	H	N
ÁTOMO	2561	CA	ALA H	113	-11.824	-1.173	100.013	1.00	41.14	H	C
ÁTOMO	2562	C	ALA H	113	-12.805	0.001	99.959	1.00	38.87	H	C
ÁTOMO	2563	O	ALA H	113	-13.983	-0.202	99.665	1.00	42.01	H	O
ÁTOMO	2564	CB	ALA H	113	-12.160	-2.055	101.202	1.00	43.56	H	C
ÁTOMO	2565	N	ALA H	114	-12.325	1.216	100.256	1.00	35.04	H	N

ÁTOMO	2566	CA	ALA	H	114	-13.182	2.403	100.240	1.00	32.22	H	C
ÁTOMO	2567	C	ALA	H	114	-13.707	2.673	98.847	1.00	34.27	H	C
ÁTOMO	2568	O	ALA	H	114	-13.135	2.218	97.839	1.00	36.90	H	O
ÁTOMO	2569	CB	ALA	H	114	-12.458	3.611	100.763	1.00	27.25	H	C
ÁTOMO	2570	N	ALA	H	115	-14.798	3.431	98.796	1.00	34.74	H	N
ÁTOMO	2571	CA	ALA	H	115	-15.460	3.725	97.537	1.00	37.80	H	C
ÁTOMO	2572	C	ALA	H	115	-15.153	5.077	96.946	1.00	35.62	H	C
ÁTOMO	2573	O	ALA	H	115	-15.027	6.068	97.652	1.00	34.30	H	O
ÁTOMO	2574	CB	ALA	H	115	-16.987	3.584	97.707	1.00	39.57	H	C
ÁTOMO	2575	N	THR	H	116	-15.090	5.101	95.622	1.00	32.15	H	N
ÁTOMO	2576	CA	THR	H	116	-14.834	6.322	94.882	1.00	32.34	H	C
ÁTOMO	2577	C	THR	H	116	-15.916	7.317	95.224	1.00	32.92	H	C
ÁTOMO	2578	O	THR	H	116	-17.121	6.985	95.198	1.00	37.07	H	O
ÁTOMO	2579	CB	THR	H	116	-14.893	6.044	93.385	1.00	32.96	H	C
ÁTOMO	2580	OG1	THR	H	116	-13.832	5.138	93.046	1.00	41.93	H	O
ÁTOMO	2581	CG2	THR	H	116	-14.752	7.314	92.582	1.00	33.48	H	C
ÁTOMO	2582	N	THR	H	117	-15.514	8.528	95.594	1.00	36.22	H	N
ÁTOMO	2583	CA	THR	H	117	-16.507	9.569	95.901	1.00	34.76	H	C
ÁTOMO	2584	C	THR	H	117	-16.052	10.810	95.193	1.00	32.82	H	C
ÁTOMO	2585	O	THR	H	117	-14.886	11.181	95.309	1.00	32.94	H	O
ÁTOMO	2586	CB	THR	H	117	-16.597	9.867	97.385	1.00	33.77	H	C
ÁTOMO	2587	OG1	THR	H	117	-16.771	8.640	98.098	1.00	39.01	H	O
ÁTOMO	2588	CG2	THR	H	117	-17.789	10.765	97.652	1.00	34.01	H	C
ÁTOMO	2589	N	PRO	H	118	-16.949	11.457	94.426	1.00	33.70	H	N
ÁTOMO	2590	CA	PRO	H	118	-16.564	12.668	93.702	1.00	35.93	H	C
ÁTOMO	2591	C	PRO	H	118	-16.494	13.861	94.655	1.00	35.72	H	C
ÁTOMO	2592	O	PRO	H	118	-17.221	13.927	95.623	1.00	40.13	H	O
ÁTOMO	2593	CB	PRO	H	118	-17.684	12.821	92.664	1.00	33.69	H	C
ÁTOMO	2594	CG	PRO	H	118	-18.908	12.369	93.472	1.00	34.15	H	C
ÁTOMO	2595	CD	PRO	H	118	-18.372	11.132	94.206	1.00	34.57	H	C
ÁTOMO	2596	N	PRO	H	119	-15.633	14.837	94.362	1.00	35.03	H	N
ÁTOMO	2597	CA	PRO	H	119	-15.571	15.983	95.273	1.00	33.26	H	C
ÁTOMO	2598	C	PRO	H	119	-16.672	16.985	95.043	1.00	31.25	H	C
ÁTOMO	2599	O	PRO	H	119	-17.268	17.024	93.972	1.00	33.26	H	O
ÁTOMO	2600	CB	PRO	H	119	-14.241	16.620	94.924	1.00	33.76	H	C
ÁTOMO	2601	CG	PRO	H	119	-14.176	16.379	93.413	1.00	31.63	H	C
ÁTOMO	2602	CD	PRO	H	119	-14.588	14.917	93.327	1.00	35.32	H	C
ÁTOMO	2603	N	SER	H	120	-16.914	17.818	96.050	1.00	31.16	H	N
ÁTOMO	2604	CA	SER	H	120	-17.822	18.941	95.888	1.00	28.95	H	C
ÁTOMO	2605	C	SER	H	120	-16.869	20.135	95.805	1.00	26.08	H	C
ÁTOMO	2606	O	SER	H	120	-16.006	20.275	96.642	1.00	28.02	H	O
ÁTOMO	2607	CB	SER	H	120	-18.763	19.081	97.078	1.00	29.74	H	C
ÁTOMO	2608	OG	SER	H	120	-19.749	18.049	97.009	1.00	35.85	H	O
ÁTOMO	2609	N	VAL	H	121	-17.007	20.969	94.776	1.00	22.55	H	N
ÁTOMO	2610	CA	VAL	H	121	-16.132	22.120	94.603	1.00	20.71	H	C
ÁTOMO	2611	C	VAL	H	121	-16.877	23.374	95.006	1.00	22.27	H	C
ÁTOMO	2612	O	VAL	H	121	-17.939	23.654	94.481	1.00	27.65	H	O
ÁTOMO	2613	CB	VAL	H	121	-15.651	22.195	93.124	1.00	17.00	H	C
ÁTOMO	2614	CG1	VAL	H	121	-14.748	23.381	92.927	1.00	15.83	H	C
ÁTOMO	2615	CG2	VAL	H	121	-14.936	20.859	92.738	1.00	16.73	H	C
ÁTOMO	2616	N	TYR	H	122	-16.349	24.129	95.962	1.00	25.41	H	N
ÁTOMO	2617	CA	TYR	H	122	-17.044	25.341	96.426	1.00	24.88	H	C
ÁTOMO	2618	C	TYR	H	122	-16.203	26.561	96.279	1.00	24.68	H	C
ÁTOMO	2619	O	TYR	H	122	-15.032	26.548	96.577	1.00	24.38	H	O
ÁTOMO	2620	CB	TYR	H	122	-17.433	25.221	97.904	1.00	24.18	H	C
ÁTOMO	2621	CG	TYR	H	122	-18.344	24.069	98.199	1.00	29.23	H	C
ÁTOMO	2622	CD1	TYR	H	122	-19.571	23.951	97.546	1.00	25.06	H	C
ÁTOMO	2623	CD2	TYR	H	122	-18.003	23.103	99.135	1.00	25.35	H	C

ATOMO	2624	CE1	TYR H	122	-20.425	22.898	97.825	1.00	21.10	H	C
ATOMO	2625	CE2	TYR H	122	-18.861	22.040	99.426	1.00	21.80	H	C
ATOMO	2626	CZ	TYR H	122	-20.059	21.950	98.767	1.00	26.10	H	C
ATOMO	2627	OH	TYR H	122	-20.912	20.895	99.028	1.00	34.59	H	O
ATOMO	2628	N	PRO H	123	-16.812	27.668	95.855	1.00	26.07	H	N
ATOMO	2629	CA	PRO H	123	-16.066	28.906	95.685	1.00	22.92	H	C
ATOMO	2630	C	PRO H	123	-15.828	29.629	97.011	1.00	25.12	H	C
ATOMO	2631	O	PRO H	123	-16.675	29.601	97.899	1.00	29.59	H	O
ATOMO	2632	CB	PRO H	123	-16.971	29.723	94.767	1.00	26.97	H	C
ATOMO	2633	CG	PRO H	123	-18.354	29.367	95.265	1.00	22.97	H	C
ATOMO	2634	CD	PRO H	123	-18.245	27.839	95.513	1.00	26.49	H	C
ATOMO	2635	N	LEU H	124	-14.671	30.279	97.127	1.00	26.07	H	N
ATOMO	2636	CA	LEU H	124	-14.326	31.043	98.325	1.00	24.46	H	C
ATOMO	2637	C	LEU H	124	-14.143	32.505	97.922	1.00	28.44	H	C
ATOMO	2638	O	LEU H	124	-13.148	32.883	97.270	1.00	28.59	H	O
ATOMO	2639	CB	LEU H	124	-13.026	30.503	98.959	1.00	24.13	H	C
ATOMO	2640	CG	LEU H	124	-13.138	29.021	99.352	1.00	25.03	H	C
ATOMO	2641	CD1	LEU H	124	-11.734	28.606	99.873	1.00	18.82	H	C
ATOMO	2642	CD2	LEU H	124	-14.254	28.781	100.416	1.00	12.78	H	C
ATOMO	2643	N	ALA H	125	-15.139	33.328	98.272	1.00	33.65	H	N
ATOMO	2644	CA	ALA H	125	-15.087	34.755	97.956	1.00	34.90	H	C
ATOMO	2645	C	ALA H	125	-15.210	35.537	99.281	1.00	37.39	H	C
ATOMO	2646	O	ALA H	125	-15.840	35.057	100.198	1.00	35.63	H	O
ATOMO	2647	CB	ALA H	125	-16.260	35.102	97.030	1.00	33.48	H	C
ATOMO	2648	N	PRO H	126	-14.621	36.744	99.375	1.00	44.34	H	N
ATOMO	2649	CA	PRO H	126	-14.664	37.596	100.585	1.00	48.17	H	C
ATOMO	2650	C	PRO H	126	-16.007	38.205	100.986	1.00	53.43	H	C
ATOMO	2651	O	PRO H	126	-16.816	38.560	100.135	1.00	53.07	H	O
ATOMO	2652	CB	PRO H	126	-13.650	38.697	100.281	1.00	48.47	H	C
ATOMO	2653	CG	PRO H	126	-13.593	38.733	98.735	1.00	46.77	H	C
ATOMO	2654	CD	PRO H	126	-13.652	37.277	98.392	1.00	47.77	H	C
ATOMO	2655	N	GLY H	127	-16.210	38.352	102.299	1.00	58.90	H	N
ATOMO	2656	CA	GLY H	127	-17.427	38.964	102.811	1.00	62.44	H	C
ATOMO	2657	C	GLY H	127	-17.313	40.472	102.691	1.00	65.56	H	C
ATOMO	2658	O	GLY H	127	-16.226	40.950	102.314	1.00	67.61	H	O
ATOMO	2659	OXT	GLY H	127	-18.294	41.197	102.962	1.00	69.07	H	0
ATOMO	2660	N	ASN H	133	-7.670	46.717	99.327	1.00	61.24	H	N
ATOMO	2661	CA	ASN H	133	-6.184	46.774	99.368	1.00	58.83	H	C
ATOMO	2662	C	ASN H	133	-5.627	46.469	98.005	1.00	54.12	H	C
ATOMO	2663	O	ASN H	133	-6.373	46.230	97.068	1.00	54.20	H	O
ATOMO	2664	CB	ASN H	133	-5.588	45.802	100.384	1.00	61.20	H	C
ATOMO	2665	CG	ASN H	133	-6.609	44.889	101.017	1.00	68.39	H	C
ATOMO	2666	OD1	ASN H	133	-6.246	44.026	101.820	1.00	78.27	H	O
ATOMO	2667	ND2	ASN H	133	-7.882	45.064	100.680	1.00	80.34	H	N
ATOMO	2668	N	SER H	134	-4.312	46.486	97.891	1.00	46.58	H	N
ATOMO	2669	CA	SER H	134	-3.669	46.251	96.611	1.00	43.64	H	C
ATOMO	2670	C	SER H	134	-4.089	44.941	95.952	1.00	40.86	H	C
ATOMO	2671	O	SER H	134	-4.406	44.914	94.760	1.00	38.97	H	O
ATOMO	2672	CB	SER H	134	-2.146	46.294	96.819	1.00	48.42	H	C
ATOMO	2673	OG	SER H	134	-1.411	45.905	95.669	1.00	51.69	H	O
ATOMO	2674	N	MET H	135	-4.095	43.852	96.725	1.00	40.34	H	N
ATOMO	2675	CA	MET H	135	-4.446	42.512	96.186	1.00	34.57	H	C
ATOMO	2676	C	MET H	135	-5.703	41.912	96.823	1.00	32.44	H	C
ATOMO	2677	O	MET H	135	-6.094	42.315	97.901	1.00	30.15	H	O
ATOMO	2678	CB	MET H	135	-3.300	41.536	96.461	1.00	35.25	H	C
ATOMO	2679	CG	MET H	135	-1.919	41.970	95.966	1.00	37.85	H	C
ATOMO	2680	SD	MET H	135	-1.916	42.012	94.167	1.00	48.89	H	S
ATOMO	2681	CE	MET H	135	-1.602	40.237	93.761	1.00	45.32	H	C

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ATOMO	2682	N	VAL H	136	-6.345	40.956	96.158	1.00	29.30	H	N
ATOMO	2683	CA	VAL H	136	-7.479	40.275	96.789	1.00	29.61	H	C
ATOMO	2684	C	VAL H	136	-7.179	38.760	96.714	1.00	27.62	H	C
ATOMO	2685	O	VAL H	136	-6.608	38.289	95.727	1.00	21.53	H	O
ATOMO	2686	CB	VAL H	136	-8.853	40.549	96.112	1.00	28.96	H	C
ATOMO	2687	CG1	VAL H	136	-8.827	40.116	94.635	1.00	30.30	H	C
ATOMO	2688	CG2	VAL H	136	-9.967	39.759	96.854	1.00	19.18	H	C
ATOMO	2689	N	THR H	137	-7.508	38.028	97.776	1.00	26.58	H	N
ATOMO	2690	CA	THR H	137	-7.299	36.573	97.756	1.00	27.60	H	C
ATOMO	2691	C	THR H	137	-8.644	35.855	97.592	1.00	29.30	H	C
ATOMO	2692	O	THR H	137	-9.628	36.183	98.269	1.00	28.40	H	O
ATOMO	2693	CB	THR H	137	-6.612	36.148	99.044	1.00	26.81	H	C
ATOMO	2694	OG1	THR H	137	-5.301	36.741	99.081	1.00	29.61	H	O
ATOMO	2695	CG2	THR H	137	-6.425	34.610	99.115	1.00	27.58	H	C
ATOMO	2696	N	LEU H	138	-8.696	34.910	96.665	1.00	28.45	H	N
ATOMO	2697	CA	LEU H	138	-9.875	34.117	96.390	1.00	23.40	H	C
ATOMO	2698	C	LEU H	138	-9.475	32.658	96.580	1.00	23.57	H	C
ATOMO	2699	O	LEU H	138	-8.305	32.326	96.795	1.00	25.01	H	O
ATOMO	2700	CB	LEU H	138	-10.312	34.265	94.935	1.00	23.55	H	C
ATOMO	2701	CG	LEU H	138	-10.498	35.735	94.482	1.00	30.56	H	C
ATOMO	2702	CD1	LEU H	138	-10.849	35.826	92.950	1.00	19.69	H	C
ATOMO	2703	CD2	LEU H	138	-11.628	36.350	95.312	1.00	35.20	H	C
ATOMO	2704	N	GLY H	139	-10.444	31.776	96.475	1.00	19.26	H	N
ATOMO	2705	CA	GLY H	139	-10.060	30.370	96.580	1.00	21.12	H	C
ATOMO	2706	C	GLY H	139	-11.156	29.404	96.169	1.00	22.32	H	C
ATOMO	2707	O	GLY H	139	-12.255	29.823	95.796	1.00	19.43	H	O
ATOMO	2708	N	CYS H	140	-10.847	28.117	96.262	1.00	19.11	H	N
ATOMO	2709	CA	CYS H	140	-11.784	27.040	95.972	1.00	23.52	H	C
ATOMO	2710	C	CYS H	140	-11.571	25.947	97.001	1.00	23.22	H	C
ATOMO	2711	O	CYS H	140	-10.418	25.607	97.321	1.00	22.91	H	O
ATOMO	2712	CB	CYS H	140	-11.557	26.447	94.562	1.00	25.73	H	C
ATOMO	2713	SG	CYS H	140	-12.544	27.321	93.297	1.00	44.80	H	S
ATOMO	2714	N	LEU H	141	-12.676	25.397	97.521	1.00	21.53	H	N
ATOMO	2715	CA	LEU H	141	-12.622	24.289	98.512	1.00	20.48	H	C
ATOMO	2716	C	LEU H	141	-13.066	23.030	97.777	1.00	18.89	H	C
ATOMO	2717	O	LEU H	141	-14.169	23.004	97.193	1.00	22.71	H	O
ATOMO	2718	CB	LEU H	141	-13.598	24.560	99.692	1.00	17.17	H	C
ATOMO	2719	CG	LEU H	141	-13.729	23.490	100.794	1.00	25.38	H	C
ATOMO	2720	CD1	LEU H	141	-12.371	23.264	101.553	1.00	25.22	H	C
ATOMO	2721	CD2	LEU H	141	-14.797	23.935	101.790	1.00	21.03	H	C
ATOMO	2722	N	VAL H	142	-12.205	22.007	97.771	1.00	15.03	H	N
ATOMO	2723	CA	VAL H	142	-12.486	20.744	97.075	1.00	15.13	H	C
ATOMO	2724	C	VAL H	142	-12.671	19.721	98.187	1.00	18.32	H	C
ATOMO	2725	O	VAL H	142	-11.708	19.140	98.693	1.00	19.22	H	O
ATOMO	2726	CB	VAL H	142	-11.293	20.370	96.194	1.00	16.12	H	C
ATOMO	2727	CG1	VAL H	142	-11.611	19.084	95.365	1.00	16.05	H	C
ATOMO	2728	CG2	VAL H	142	-11.007	21.534	95.233	1.00	16.52	H	C
ATOMO	2729	N	LYS H	143	-13.938	19.463	98.512	1.00	19.22	H	N
ATOMO	2730	CA	LYS H	143	-14.254	18.650	99.664	1.00	23.50	H	C
ATOMO	2731	C	LYS H	143	-14.891	17.303	99.486	1.00	23.95	H	C
ATOMO	2732	O	LYS H	143	-15.787	17.124	98.656	1.00	28.68	H	O
ATOMO	2733	CB	LYS H	143	-15.156	19.497	100.574	1.00	21.98	H	C
ATOMO	2734	CG	LYS H	143	-15.507	18.917	101.941	1.00	25.06	H	C
ATOMO	2735	CD	LYS H	143	-16.282	19.991	102.758	1.00	28.37	H	C
ATOMO	2736	CE	LYS H	143	-16.877	19.396	104.058	1.00	28.90	H	C
ATOMO	2737	NZ	LYS H	143	-15.810	18.790	104.927	1.00	44.68	H	N
ATOMO	2738	N	GLY H	144	-14.419	16.381	100.312	1.00	24.19	H	N
ATOMO	2739	CA	GLY H	144	-14.944	15.038	100.379	1.00	26.62	H	C
ATOMO	2740	C	GLY H	144	-14.856	14.128	99.180	1.00	27.65	H	C
ATOMO	2741	O	GLY H	144	-15.897	13.622	98.714	1.00	30.78	H	O
ATOMO	2742	N	TYR H	145	-13.635	13.914	98.690	1.00	26.76	H	N

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ÁTOMO	2743	CA	TYR H	145	-13.398	13.016	97.550	1.00	27.17	H	C
ÁTOMO	2744	C	TYR H	145	-12.535	11.814	97.920	1.00	29.53	H	C
ÁTOMO	2745	O	TYR H	145	-11.889	11.802	98.970	1.00	25.98	H	O
ÁTOMO	2746	CB	TYR H	145	-12.743	13.759	96.378	1.00	24.08	H	C
ÁTOMO	2747	CG	TYR H	145	-11.357	14.306	96.683	1.00	28.06	H	C
ÁTOMO	2748	CD1	TYR H	145	-10.204	13.586	96.338	1.00	30.37	H	C
ÁTOMO	2749	CD2	TYR H	145	-11.196	15.553	97.283	1.00	22.50	H	C
ÁTOMO	2750	CE1	TYR H	145	-8.897	14.112	96.575	1.00	25.17	H	C
ÁTOMO	2751	CE2	TYR H	145	-9.926	16.061	97.539	1.00	20.82	H	C
ÁTOMO	2752	CZ	TYR H	145	-8.793	15.356	97.184	1.00	28.20	H	C
ÁTOMO	2753	OH	TYR H	145	-7.553	15.864	97.461	1.00	17.93	H	O
ÁTOMO	2754	N	PHE H	146	-12.555	10.780	97.056	1.00	31.05	H	N
ÁTOMO	2755	CA	PHE H	146	-11.737	9.586	97.264	1.00	31.43	H	C
ÁTOMO	2756	C	PHE H	146	-11.753	8.812	95.960	1.00	32.08	H	C
ÁTOMO	2757	O	PHE H	146	-12.805	8.697	95.328	1.00	36.16	H	O
ÁTOMO	2758	CB	PHE H	146	-12.306	8.690	98.359	1.00	29.02	H	C
ÁTOMO	2759	CG	PHE H	146	-11.379	7.556	98.767	1.00	27.00	H	C
ÁTOMO	2760	CD1	PHE H	146	-10.421	7.740	99.757	1.00	22.36	H	C
ÁTOMO	2761	CD2	PHE H	146	-11.440	6.334	98.121	1.00	27.68	H	C
ÁTOMO	2762	CE1	PRE H	146	-9.550	6.755	100.091	1.00	21.95	H	C
ÁTOMO	2763	CE2	PHE H	146	-10.541	5.323	98.464	1.00	27.29	H	C
ÁTOMO	2764	CZ	PHE H	146	-9.600	5.530	99.443	1.00	22.36	H	C
ÁTOMO	2765	N	PRO H	147	-10.591	8.321	95.527	1.00	27.57	H	N
ÁTOMO	2766	CA	PRO H	147	-9.315	8.477	96.209	1.00	26.64	H	C
ÁTOMO	2767	C	PRO H	147	-8.572	9.704	95.669	1.00	26.21	H	C
ÁTOMO	2768	O	PRO H	147	-9.112	10.443	94.866	1.00	25.89	H	O
ÁTOMO	2769	CB	PRO H	147	-8.582	7.214	95.806	1.00	23.36	H	C
ÁTOMO	2770	CG	PRO H	147	-8.879	7.172	94.377	1.00	25.94	H	C
ÁTOMO	2771	CD	PRO H	147	-10.416	7.467	94.332	1.00	26.74	H	C
ÁTOMO	2772	N	GLU H	148	-7.335	9.901	96.128	1.00	26.28	H	N
ÁTOMO	2773	CA	GLU H	148	-6.490	10.963	95.562	1.00	29.14	H	C
ÁTOMO	2774	C	GLU H	148	-6.174	10.431	94.162	1.00	28.26	H	C
ÁTOMO	2775	O	GLU H	148	-6.178	9.219	93.951	1.00	32.81	H	O
ÁTOMO	2776	CB	GLU H	148	-5.206	11.084	96.344	1.00	27.60	H	C
ÁTOMO	2777	CG	GLU H	148	-5.450	11.628	97.701	1.00	28.15	H	C
ÁTOMO	2778	CD	GLU H	148	-4.209	12.176	98.294	1.00	46.58	H	C
ÁTOMO	2779	OE1	GLU H	148	-3.378	11.332	98.735	1.00	56.93	H	O
ÁTOMO	2780	OE2	GLU H	148	-4.080	13.441	98.294	1.00	37.38	H	O
ÁTOMO	2781	N	PRO H	149	-5.806	11.313	93.216	1.00	28.64	H	N
ÁTOMO	2782	CA	PRO H	149	-5.671	12.760	93.426	1.00	26.39	H	C
ÁTOMO	2783	C	PRO H	149	-6.724	13.569	92.707	1.00	24.55	H	C
ÁTOMO	2784	O	PRO H	149	-7.597	13.026	92.035	1.00	23.88	H	O
ÁTOMO	2785	CB	PRO H	149	-4.314	13.034	92.809	1.00	28.35	H	C
ÁTOMO	2786	CG	PRO H	149	-4.455	12.232	91.462	1.00	20.74	H	C
ÁTOMO	2787	CD	PRO H	149	-5.192	10.913	91.932	1.00	28.56	H	C
ÁTOMO	2788	N	VAL H	150	-6.627	14.890	92.868	1.00	23.29	H	N
ÁTOMO	2789	CA	VAL H	150	-7.448	15.809	92.113	1.00	19.21	H	C
ÁTOMO	2790	C	VAL H	150	-6.429	16.769	91.532	1.00	24.23	H	C
ÁTOMO	2791	O	VAL H	150	-5.306	16.897	92.035	1.00	26.42	H	O
ÁTOMO	2792	CB	VAL H	150	-8.414	16.651	92.944	1.00	18.09	H	C
ÁTOMO	2793	CG1	VAL H	150	-9.577	15.751	93.478	1.00	17.95	H	C
ÁTOMO	2794	CG2	VAL H	150	-7.665	17.369	94.096	1.00	10.71	H	C
ÁTOMO	2795	N	THR H	151	-6.811	17.441	90.471	1.00	24.63	H	N
ÁTOMO	2796	CA	THR H	151	-5.939	18.436	89.935	1.00	30.43	H	C
ÁTOMO	2797	C	THR H	151	-6.700	19.742	90.049	1.00	28.78	H	C
ÁTOMO	2798	O	THR H	151	-7.915	19.765	89.869	1.00	26.29	H	O
ÁTOMO	2799	CB	THR H	151	-5.597	18.153	88.481	1.00	31.70	H	C
ÁTOMO	2800	OG1	THR H	151	-6.802	18.052	87.694	1.00	43.95	H	O

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ÁTOMO	2801	CG2	THR H	151	-4.824	16.859	88.402	1.00	36.27	H	C
ÁTOMO	2802	N	VAL H	152	-5.980	20.808	90.364	1.00	26.62	H	N
ÁTOMO	2803	CA	VAL H	152	-6.578	22.127	90.436	1.00	25.23	H	C
ÁTOMO	2804	C	VAL H	152	-5.755	23.161	89.630	1.00	23.01	H	C
ÁTOMO	2805	O	VAL H	152	-4.544	23.228	89.792	1.00	27.04	H	O
ÁTOMO	2806	CB	VAL H	152	-6.625	22.623	91.897	1.00	25.96	H	C
ÁTOMO	2807	CG1	VAL H	152	-7.340	24.014	91.930	1.00	22.70	H	C
ÁTOMO	2808	CG2	VAL H	152	-7.372	21.609	92.784	1.00	25.04	H	C
ÁTOMO	2809	N	THR H	153	-6.385	23.915	88.736	1.00	20.60	H	N
ÁTOMO	2810	CA	THR H	153	-5.667	24.996	88.048	1.00	23.67	H	C
ÁTOMO	2811	C	THR H	153	-6.627	26.211	88.132	1.00	24.11	H	C
ÁTOMO	2812	O	THR H	153	-7.765	26.061	88.565	1.00	25.71	H	O
ÁTOMO	2813	CB	THR H	153	-5.395	24.659	86.551	1.00	24.28	H	C
ÁTOMO	2814	OG1	THR H	153	-6.632	24.412	85.889	1.00	25.91	H	O
ÁTOMO	2815	CG2	THR H	153	-4.566	23.435	86.450	1.00	19.31	H	C
ÁTOMO	2816	N	TRP H	154	-6.150	27.393	87.752	1.00	28.43	H	N
ÁTOMO	2817	CA	TRP H	154	-6.961	28.600	87.754	1.00	32.03	H	C
ÁTOMO	2818	C	TRP H	154	-6.981	29.195	86.342	1.00	30.20	H	C
ÁTOMO	2819	O	TRP H	154	-5.952	29.288	85.689	1.00	29.01	H	O
ÁTOMO	2820	CB	TRP H	154	-6.389	29.598	88.748	1.00	33.71	H	C
ÁTOMO	2821	CG	TRP H	154	-6.641	29.175	90.185	1.00	33.79	H	C
ÁTOMO	2822	CD1	TRP H	154	-5.828	28.406	90.998	1.00	25.73	H	C
ÁTOMO	2823	CD2	TRP H	154	-7.800	29.499	90.957	1.00	32.12	H	C
ÁTOMO	2824	NE1	TRP H	154	-6.430	28.241	92.244	1.00	21.18	H	N
ÁTOMO	2825	CE2	TRP H	154	-7.638	28.900	92.239	1.00	27.40	H	C
ÁTOMO	2826	CE3	TRP H	154	-8.964	30.231	90.693	1.00	25.24	H	C
ÁTOMO	2827	CZ2	TRP H	154	-8.608	29.024	93.254	1.00	29.44	H	C
ÁTOMO	2828	CZ3	TRP H	154	-9.929	30.352	91.705	1.00	30.04	H	C
ÁTOMO	2829	CH2	TRP H	154	-9.737	29.748	92.972	1.00	24.77	H	C
ÁTOMO	2830	N	ASN H	155	-8.144	29.560	85.867	1.00	30.30	H	N
ÁTOMO	2831	CA	ASN H	155	-8.219	30,047	84.479	1.00	37.67	H	C
ÁTOMO	2832	C	ASN H	155	-7.488	29.181	83.443	1.00	37.85	H	C
ÁTOMO	2833	O	ASN H	155	-6.758	29.686	82.593	1.00	37.12	H	O
ÁTOMO	2834	CB	ASN H	155	-7.740	31.496	84.413	1.00	34.75	H	C
ÁTOMO	2835	CG	ASN H	155	-8.733	32.415	85.030	1.00	35.49	H	C
ÁTOMO	2836	OD1	ASN H	155	-9.845	31.980	85.382	1.00	44.08	H	O
ÁTOMO	2837	ND2	ASN H	155	-8.376	33.683	85.170	1.00	45.82	H	N
ÁTOMO	2838	N	SER H	156	-7.712	27.876	83.528	1.00	37.34	H	N
ÁTOMO	2839	CA	SER H	156	-7.123	26.916	82.612	1.00	36.58	H	C
ÁTOMO	2840	C	SER H	156	-5.612	26.997	82.592	1.00	36.12	H	C
ÁTOMO	2841	O	SER H	156	-4.972	26.657	81.592	1.00	38.51	H	O
ÁTOMO	2842	CB	SER H	156	-7.672	27.141	81.200	1.00	37.40	H	C
ÁTOMO	28c3	OG	SER H	156	-9.060	26.867	81.135	1.00	37.91	H	O
ÁTOMO	2844	N	GLY H	157	-5.040	27.435	83.706	1.00	30.77	H	N
ÁTOMO	2845	CA	GLY H	157	-3.601	27.547	83.803	1.00	26.68	H	C
ÁTOMO	2846	C	GLY H	157	-3.067	28.929	83.534	1.00	29.62	H	C
ÁTOMO	2847	O	GLY H	157	-1.869	29.140	83.698	1.00	27.32	H	O
ÁTOMO	2848	N	SER H	158	-3.940	29.878	83.157	1.00	31.56	H	N
ÁTOMO	2849	CA	SER H	158	-3.528	31.255	82.852	1.00	33.96	H	C
ÁTOMO	2850	C	SER H	158	-3.142	32.019	84.087	1.00	36.34	H	C
ÁTOMO	2851	O	SER H	158	-2.390	32.981	84.026	1.00	41.32	H	O
ÁTOMO	2852	CB	SER H	158	-4.652	32.041	82.153	1.00	32.92	H	C
ÁTOMO	2853	OG	SER H	158	-4.650	31.782	80.781	1.00	39.53	H	O
ÁTOMO	2854	N	LEU H	159	-3.668	31.584	85.217	1.00	39.25	H	N
ÁTOMO	2855	CA	LEU H	159	-3.396	32.230	86.494	1.00	38.76	H	C
ÁTOMO	2856	C	LEU H	159	-2.548	31.225	87.244	1.00	36.89	H	C
ÁTOMO	2857	O	LEU H	159	-3.049	30.197	87.730	1.00	39.64	H	O
ÁTOMO	2858	CB	LEU H	159	-4.734	32.462	87.186	1.00	41.00	H	C

ATOMO	2859	CG	LEU	H	159	-4.879	33.242	88.473	1.00	45.92	H	C
ATOMO	2860	CD1	LEU	H	159	-3.662	34.081	88.758	1.00	44.07	H	C
ATOMO	2861	CN2	LEU	H	159	-6.162	34.082	88.320	1.00	46.78	H	C
ATOMO	2862	N	SER	H	160	-1.268	31.522	87.329	1.00	35.36	H	N
ATOMO	2863	CA	SER	H	160	-0.327	30.620	87.958	1.00	37.84	H	C
ATOMO	2864	C	SER	H	160	0.509	31.105	89.144	1.00	34.85	H	C
ATOMO	2865	O	SER	H	160	0.707	30.378	90.115	1.00	35.06	H	O
ATOMO	2866	CB	SER	H	160	0.607	30.089	86.877	1.00	39.57	H	C
ATOMO	2867	OG	SER	H	160	1.004	28.783	87.208	1.00	54.86	H	O
ATOMO	2868	N	SER	H	161	1.037	32.308	89.080	1.00	33.71	H	N
ATOMO	2869	CA	SER	H	161	1.863	32.781	90.185	1.00	35.46	H	C
ATOMO	2870	C	SER	H	161	0.926	33.209	91.324	1.00	33.85	H	C
ATOMO	2871	O	SER	H	161	-0.237	33.538	91.084	1.00	35.17	H	O
ATOMO	2872	CB	SER	H	161	2.743	33.966	89.718	1.00	33.22	H	C
ATOMO	2873	OG	SER	H	161	1.944	35.110	89.467	1.00	38.84	H	O
ATOMO	2874	N	GLY	H	162	1.410	33.159	92.556	1.00	30.84	H	N
ATOMO	2875	CA	GLY	H	162	0.551	33.550	93.666	1.00	33.82	H	C
ATOMO	2876	C	GLY	H	162	-0.598	32.579	93.971	1.00	34.76	H	C
ATOMO	2877	O	GLY	H	162	-1.590	32.931	94.634	1.00	38.65	H	O
ATOMO	2878	N	VAL	H	163	-0.499	31.357	93.468	1.00	33.18	H	N
ATOMO	2879	CA	VAL	H	163	-1.520	30.356	93.748	1.00	27.52	H	C
ATOMO	2880	C	VAL	H	163	-0.920	29.483	94.821	1.00	27.53	H	C
ATOMO	2881	O	VAL	H	163	0.275	29.223	94.805	1.00	27.13	H	O
ATOMO	2882	CB	VAL	H	163	-1.803	29.435	92.508	1.00	28.90	H	C
ATOMO	2883	CG1	VAL	H	163	-2.545	28.168	92.958	1.00	26.60	H	C
ATOMO	2884	CG2	VAL	H	163	-2.650	30.208	91.431	1.00	27.66	H	C
ATOMO	2885	N	HIS	H	164	-1.746	29.029	95.772	1.00	25.64	H	N
ATOMO	2886	CA	HIS	H	164	-1.297	28.109	96.780	1.00	22.44	H	C
ATOMO	2887	C	HIS	H	164	-2.280	26.960	96.853	1.00	20.69	H	C
ATOMO	2888	O	HIS	H	164	-3.363	27.117	97.415	1.00	20.78	H	O
ATOMO	2889	CB	HIS	H	164	-1.242	28.731	98.162	1.00	19.62	H	C
ATOMO	2890	CG	HIS	H	164	-0.075	29.633	98.360	1.00	29.05	H	C
ATOMO	2891	ND1	HIS	H	164	1.236	29.205	98.227	1.00	26.92	H	N
ATOMO	2892	CD2	HIS	H	164	-0.020	30.951	98.653	1.00	31.28	H	C
ATOMO	2893	CE1	HIS	H	164	2.044	30.236	98.426	1.00	15.96	H	C
ATOMO	2894	NE2	HIS	H	164	1.307	31.300	98.684	1.00	26.44	H	N
ATOMO	2895					-1.932	25.808	96.287	1.00	19.73	H	N
ATOMO	2896	CA	THR	H	165	-2.866	24.680	96.434	1.00	19.46	H	C
ATOMO	2897	C	THR	H	165	-2.371	23.869	97.622	1.00	16.26	H	C
ATOMO	2898	O	THR	H	165	-1.277	23.330	97.589	1.00	20.05	H	O
ATOMO	2899	CB	THR	H	165	-2.913	23.856	95.113	1.00	18.44	H	C
ATOMO	2900	OG1	THR	H	165	-3.554	24.648	94.107	1.00	19.78	H	O
ATOMO	2901	CG2	THR	H	165	-3.750	22.575	95.299	1.00	13.68	H	C
ATOMO	2902	N	PHE	H	166	-3.181	23.752	98.677	1.00	15.64	H	N
ATOMO	2903	CA	PHE	H	166	-2.747	23.042	99.857	1.00	15.46	H	C
ATOMO	2904	C	PHE	H	166	-2.826	21.500	99.769	1.00	15.55	H	C
ATOMO	2905	O	PHE	H	166	-3.701	20.936	99.109	1.00	18.73	H	O
ATOMO	2906	CB	PHE	H	166	-3.553	23.547	101.085	1.00	12.32	H	C
ATOMO	2907	CG	PHE	H	166	-3.345	25.027	101.375	1.00	11.24	H	C
ATOMO	2908	CD1	PHE	H	166	-3.999	25.997	100.633	1.00	11.46	H	C
ATOMO	2909	CD2	PHE	H	166	-2.386	25.415	102.291	1.00	7.74	H	C
ATOMO	2910	CE1	PHE	H	166	-3.663	27.354	100.804	1.00	7.46	H	C
ATOMO	2911	CE2	PHE	H	166	-2.056	26.756	102.470	1.00	17.10	H	C
ATOMO	2912	CZ	PHE	H	166	-2.693	27.718	101.721	1.00	18.02	H	C
ATOMO	2913	N	PRO	H	167	-1.914	20.805	100.440	1.00	14.91	H	N
ATOMO	2914	CA	PRO	H	167	-1.971	19.325	100.401	1.00	15.32	H	C
ATOMO	2915	C	PRO	H	167	-3.327	18.853	100.950	1.00	17.25	H	C
ATOMO	2916	O	PRO	H	167	-3.865	19.419	101.913	1.00	17.80	H	O
ATOMO	2917	CB	PRO	H	167	-0.854	18.898	101.368	1.00	11.96	H	C
ATOMO	2918	CG	PRO	H	167	0.133	20.030	101.292	1.00	19.53	H	C

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ÁTOMO 2919 CD  PRO H 167     -0.790  21.279 101.282 1.00  17.99 H  C
ÁTOMO 2920 N   ALA H 168     -3.846  17.779 100.377 1.00  21.70 H  N
ÁTOMO 2921 CA  ALA H 168     -5.123  17.227 100.818 1.00  21.19 H  C
ÁTOMO 2922 C   ALA H 168     -4.982  16.625 102.200 1.00  24.10 H  C
ÁTOMO 2923 O   ALA H 168     -3.910  16.161 102.574 1.00  23.83 H  O
ÁTOMO 2924 CB  ALA H 168     -5.584  16.142 99.847  1.00  21.74 H  C
ÁTOMO 2925 N   VAL H 169     -6.066  16.646 102.963 1.00  23.33 H  N
ÁTOMO 2926 CA  VAL H 169     -6.062  16.066 104.288 1.00  25.37 H  C
ÁTOMO 2927 C   VAL H 169     -7.177  15.025 104.330 1.00  28.13 H  C
ÁTOMO 2928 O   VAL H 169     -8.269  15.272 103.881 1.00  27.25 H  O
ÁTOMO 2929 CB  VAL H 169     -6.329  17.083 105.345 1.00  28.37 H  C
ÁTOMO 2930 CG1 VAL H 169     -6.454  16.372 106.715 1.00  29.42 H  C
ÁTOMO 2931 CG2 VAL H 169     -5.155  18.088 105.368 1.00  24.48 H  C
ÁTOMO 2932 N   LEU H 170     -6.868  13.870 104.896 1.00  32.34 H  N
ÁTOMO 2933 CA  LEU H 170     -7.797  12.758 104.952 1.00  32.97 H  C
ÁTOMO 2934 C   LEU H 170     -8.536  12.719 106.248 1.00  35.04 H  C
ÁTOMO 2935 O   LEU H 170     -7.909  12.711 107.305 1.00  35.43 H  O
ÁTOMO 2936 CB  LEU H 170     -7.042  11.438 104.807 1.00  32.88 H  C
ÁTOMO 2937 CG  LEU H 170     -7.913  10.181 104.914 1.00  35.41 H  C
ÁTOMO 2938 CD1 LEU H 170     -8.703  10.023 103.629 1.00  22.56 H  C
ÁTOMO 2939 CD2 LEU H 170     -7.010  8.988  105.199 1.00  27.80 H  C
ÁTOMO 2940 N   ALA H 171     -9.866  12.676 106.155 1.00  37.86 H  N
ÁTOMO 2941 CA  ALA H 171     -10.744 12.570 107.322 1.00  42.55 H  C
ÁTOMO 2942 C   ALA H 171     -11.937 11.631 106.998 1.00  45.59 H  C
ÁTOMO 2943 O   ALA H 171     -12.513 11.685 105.922 1.00  45.22 H  O
ÁTOMO 2944 CB  ALA H 171     -11.254 13.955 107.735 1.00  43.37 H  C
ÁTOMO 2945 N   SER H 172     -12.268 10.749 107.939 1.00  48.68 H  N
ÁTOMO 2946 CA  SER H 172     -13.386 9.836  107.783 1.00  50.22 H  C
ÁTOMO 2947 C   SER H 172     -13.438 9.283  106.381 1.00  50.04 H  C
ÁTOMO 2948 O   SER H 172     -14.468 9.379  105.680 1.00  54.88 H  O
ÁTOMO 2949 CB  SER H 172     -14.693 10.557 108.097 1.00  51.94 H  C
ÁTOMO 2950 OG  SER H 172     -14.605 11.294 109.313 1.00  58.55 H  O
ÁTOMO 2951 N   ALA H 173     -12.316 8.717  105.955 1.00  46.45 H  N
ÁTOMO 2952 CA  ALA H 173     -12.221 8.136  104.638 1.00  44.35 H  C
ÁTOMO 2953 C   ALA H 173     -12.433 9.084  103.459 1.00  40.49 H  C
ÁTOMO 2954 O   ALA H 173     -12.644 8.625  102.354 1.00  41.86 H  O
ÁTOMO 2955 CB  ALA H 173     -13.182 6.946  104.518 1.00  46.98 H  C
ÁTOMO 2956 N   LEU H 174     -12.418 10.398 103.674 1.00  36.41 H  N
ÁTOMO 2957 CA  LEU H 174     -12.548 11.299 102.523 1.00  32.15 H  C
ÁTOMO 2958 C   LEU H 174     -11.479 12.391 102.637 1.00  30.15 H  C
ÁTOMO 2959 O   LEU H 174     -11.151 12.817 103.719 1.00  30.85 H  O
ÁTOMO 2960 CB  LEU H 174     -13.921 12.000 102.465 1.00  32.78 H  C
ÁTOMO 2961 CG  LEU H 174     -15.150 11.060 102.332 1.00  25.26 H  C
ÁTOMO 2962 CD1 LEU H 174     -16.442 11.878 102.384 1.00  12.36 H  C
ÁTOMO 2963 CD2 LEU H 174     -15.089 10.326 101.005 1.00  20.98 H  C
ÁTOMO 2964 N   TYR H 175     -10.999 12.828 101.487 1.00  27.64 H  N
ÁTOMO 2965 CA  TYR H 175     -9.983  13.877 101.391 1.00  27.11 H  C
ÁTOMO 2966 C   TYR H 175     -10.651 15.217 101.148 1.00  25.89 H  C
ÁTOMO 2967 O   TYR H 175     -11.699 15.279 100.499 1.00  22.59 H  O
ÁTOMO 2968 CB  TYR H 175     -9.092  13.601 100.185 1.00  28.71 H  C
ÁTOMO 2969 CG  TYR H 175     -8.129  12.491 100.404 1.00  33.19 H  C
ÁTOMO 2970 CD1 TYR H 175     -6.952  12.698 101.119 1.00  36.50 H  C
ÁTOMO 2971 CD2 TYR H 175     -8.411  11.209 99.935  1.00  30.21 H  C
ÁTOMO 2972 CE1 TYR H 175     -6.065  11.654 101.376 1.00  36.87 H  C
ÁTOMO 2973 CE2 TYR H 175     -7.540  10.161 100.172 1.00  42.67 H  C
ÁTOMO 2974 CZ  TYR H 175     -6.376  10.386 100.895 1.00  46.88 H  C
ÁTOMO 2975 OH  TYR H 175     -5.552  9.325  101.168 1.00  52.45 H  O
ÁTOMO 2976 N   THR H 176     -10.025 16.282 101.641 1.00  24.24 H  N
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ÁTOMO	2977	CA	THR H	176	-10.483	17.630	101.373	1.00	24.99	H	C
ÁTOMO	2978	C	THR H	176	-9.248	18.510	101.109	1.00	22.35	H	C
ÁTOMO	2979	O	THR H	176	-8.234	18.373	101.772	1.00	22.32	H	O
ÁTOMO	2980	CB	THR H	176	-11.276	18.218	102.575	1.00	23.22	H	C
ÁTOMO	2981	OG1	THR H	176	-12.527	17.519	102.692	1.00	31.74	H	O
ÁTOMO	2982	CG2	THR H	176	-11.531	19.677	102.381	1.00	10.30	H	C
ÁTOMO	2983	N	LEU H	177	-9.312	19.378	100.112	1.00	22.69	H	N
ÁTOMO	2984	CA	LEU H	177	-8.179	20.266	99.954	1.00	25.06	H	C
ÁTOMO	2985	C	LEU H	177	-8.730	21.621	99.559	1.00	24.30	H	C
ÁTOMO	2986	O	LEU H	177	-9.895	21.750	99.205	1.00	22.61	H	O
ÁTOMO	2987	CB	LEU H	177	-7.157	19.757	98.908	1.00	21.57	H	C
ÁTOMO	2988	CG	LEU H	177	-7.270	19.745	97.374	1.00	26.70	H	C
ÁTOMO	2989	CD1	LEU H	177	-7.486	21.147	96.826	1.00	30.91	H	C
ÁTOMO	2990	CD2	LEU H	177	-5.957	19.177	96.740	1.00	15.94	H	C
ÁTOMO	2991	N	SER H	178	-7.866	22.631	99.643	1.00	22.75	H	N
ÁTOMO	2992	CA	SER H	178	-8.247	23.977	99.247	1.00	17.84	H	C
ÁTOMO	2993	C	SER H	178	-7.121	24.563	98.404	1.00	21.14	H	C
ÁTOMO	2994	O	SER H	178	-5.998	24.067	98.432	1.00	24.22	H	O
ÁTOMO	2995	CB	SER H	178	-8.445	24.866	100.475	1.00	13.35	H	C
ÁTOMO	2996	OG	SER H	178	-7.328	24.874	101.317	1.00	13.31	H	O
ÁTOMO	2997	N	SER H	179	-7.410	25.678	97.727	1.00	17.80	H	N
ÁTOMO	2998	CA	SER H	179	-6.422	26.347	96.877	1.00	21.55	H	C
ÁTOMO	2999	C	SER H	179	-6.798	27.835	96.921	1.00	18.82	H	C
ÁTOMO	3000	O	SER H	179	-7.983	28.190	96.806	1.00	16.75	H	O
ÁTOMO	3001	CB	SER H	179	-6.515	25.829	95.405	1.00	15.41	H	C
ÁTOMO	3002	OG	SER H	179	-5.567	26.519	94.582	1.00	21.64	H	O
ÁTOMO	3003	N	SER H	180	-5.800	28.677	97.141	1.00	17.88	H	N
ÁTOMO	3004	CA	SER H	180	-6.028	30.111	97.190	1.00	21.70	H	C
ÁTOMO	3005	C	SER H	180	-5.301	30.722	96.003	1.00	24.16	H	C
ÁTOMO	3006	O	SER H	180	-4.302	30.163	95.518	1.00	26.15	H	O
ÁTOMO	3007	CB	SER H	180	-5.458	30.694	98.476	1.00	14.18	H	C
ÁTOMO	3008	OG	SER H	180	-4.048	30.661	98.488	1.00	22.63	H	O
ÁTOMO	3009	N	VAL H	181	-5.809	31.862	95.544	1.00	24.76	H	N
ÁTOMO	3010	CA	VAL H	181	-5.165	32.572	94.450	1.00	28.32	H	C
ÁTOMO	3011	C	VAL H	181	-5.303	34.070	94.779	1.00	31.11	H	C
ÁTOMO	3012	O	VAL H	181	-6.373	34.534	95.252	1.00	27.76	H	O
ÁTOMO	3013	CB	VAL H	181	-5.777	32.198	93.107	1.00	25.96	H	C
ÁTOMO	3014	CG1	VAL H	181	-7.239	32.585	93.055	1.00	24.23	H	C
ÁTOMO	3015	CG2	VAL H	181	-4.989	32.890	91.965	1.00	28.59	H	C
ÁTOMO	3016	N	THR H	182	-4.211	34.810	94.590	1.00	32.70	H	N
ÁTOMO	3017	CA	THR H	182	-4.218	36.234	94.909	1.00	34.03	H	C
ÁTOMO	3018	C	THR H	182	-4.005	37.020	93.627	1.00	36.50	H	C
ÁTOMO	3019	O	THR H	182	-3.093	36.707	92.850	1.00	37.98	H	O
ÁTOMO	3020	CB	THR H	182	-3.128	36.552	95.875	1.00	31.37	H	C
ÁTOMO	3021	OG1	THR H	182	-3.283	35.720	97.033	1.00	40.50	H	O
ÁTOMO	3022	CG2	THR H	182	-3.195	38.023	96.277	1.00	32.65	H	C
ÁTOMO	3023	N	VAL H	183	-4.848	38.025	93.405	1.00	39.24	H	N
ÁTOMO	3024	CA	VAL H	183	-4.783	38.816	92.175	1.00	37.33	H	C
ÁTOMO	3025	C	VAL H	183	-5.049	40.278	92.535	1.00	40.59	H	C
ÁTOMO	3026	O	VAL H	183	-5.559	40.559	93.616	1.00	43.75	H	O
ÁTOMO	3027	CB	VAL H	183	-5.858	38.322	91.149	1.00	35.36	H	C
ÁTOMO	3028	CG1	VAL H	183	-5.723	36.802	90.921	1.00	23.98	H	C
ÁTOMO	3029	CG2	VAL H	183	-7.238	38.613	91.650	1.00	30.51	H	C
ÁTOMO	3030	N	PRO H	184	-4.671	41.225	91.647	1.00	44.29	H	N
ÁTOMO	3031	CA	PRO H	184	-4.892	42.663	91.903	1.00	43.69	H	C
ÁTOMO	3032	C	PRO H	184	-6.376	42.986	92.160	1.00	45.05	H	C
ÁTOMO	3033	O	PRO H	184	-7.275	42.516	91.440	1.00	45.22	H	O
ÁTOMO	3034	CB	PRO H	184	-4.385	43.323	90.625	1.00	43.90	H	C
ÁTOMO	3035	CG	PRO H	184	-3.269	42.373	90.169	1.00	42.32	H	C

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ÁTOMO	3036	CD	PRO H	184	-3.966	41.020	90.368	1.00	44.98	H	C
ÁTOMO	3037	N	SER H	185	-6.639	43.801	93.170	1.00	45.15	H	N
ÁTOMO	3038	CA	SER H	185	-8.029	44.159	93.496	1.00	50.32	H	C
ÁTOMO	3039	C	SER H	185	-8.816	44.602	92.254	1.00	51.82	H	C
ÁTOMO	3040	O	SER H	185	-9.997	44.277	92.098	1.00	53.19	H	O
ÁTOMO	3041	CB	SER H	185	-8.066	45.308	94.512	1.00	52.23	H	C
ÁTOMO	3042	OG	SER H	185	-7.310	45.024	95.657	1.00	55.30	H	O
ÁTOMO	3043	N	SER H	186	-8.143	45.353	91.385	1.00	55.70	H	N
ÁTOMO	3044	CA	SER H	186	-8.744	45.896	90.158	1.00	58.70	H	C
ÁTOMO	3045	C	SER H	186	-9.408	44.843	89.270	1.00	61.29	H	C
ÁTOMO	3046	O	SER H	186	-10.570	44.989	88.896	1.00	61.19	H	O
ÁTOMO	3047	CB	SER H	186	-7.685	46.646	89.357	1.00	59.11	H	C
ÁTOMO	3048	OG	SER H	186	-6.732	47.223	90.221	1.00	58.60	H	O
ÁTOMO	3049	N	PRO H	187	-8.660	43.793	88.889	1.00	62.65	H	N
ÁTOMO	3050	CA	PRO H	187	-9.086	42.667	88.056	1.00	61.57	H	C
ÁTOMO	3051	C	PRO H	187	-10.349	41.921	88.486	1.00	61.38	H	C
ÁTOMO	3052	O	PRO H	187	-11.042	41.382	87.645	1.00	62.12	H	O
ÁTOMO	3053	CB	PRO H	187	-7.872	41.765	88.089	1.00	60.03	H	C
ÁTOMO	3054	CG	PRO H	187	-6.774	42.758	87.954	1.00	64.04	H	C
ÁTOMO	3055	CD	PRO H	187	-7.184	43.826	88.953	1.00	65.51	H	C
ÁTOMO	3056	N	ARG H	188	-10.652	41.865	89.779	1.00	58.01	H	N
ÁTOMO	3057	CA	ARG H	188	-11.843	41.137	90.192	1.00	53.46	H	C
ÁTOMO	3058	C	ARG H	188	-12.869	41.986	90.932	1.00	53.17	H	C
ÁTOMO	3059	O	ARG H	188	-12.512	42.894	91.687	1.00	55.75	H	O
ÁTOMO	3060	CB	ARG H	188	-11.440	39.920	91.041	1.00	51.65	H	C
ÁTOMO	3061	CG	ARG H	188	-11.888	38.574	90.466	1.00	47.14	H	C
ÁTOMO	3062	CD	ARG H	188	-13.080	38.057	91.212	1.00	24.95	H	C
ÁTOMO	3063	NE	ARG H	188	-13.208	38.806	92.451	1.00	25.44	H	N
ÁTOMO	3064	CZ	ARG H	188	-14.092	38.535	93.397	1.00	30.93	H	C
ÁTOMO	3065	NH1	ARG H	188	-14.932	37.526	93.250	1.00	29.87	H	N
ÁTOMO	3066	NH2	ARG H	188	-14.137	39.270	94.492	1.00	29.13	H	N
ÁTOMO	3067	N	PRO H	189	-14.164	41.714	90.705	1.00	49.03	H	N
ÁTOMO	3068	CA	PRO H	189	-14.695	40.684	89.815	1.00	50.12	H	C
ÁTOMO	3069	C	PRO H	189	-14.844	41.144	88.361	1.00	54.80	H	C
ÁTOMO	3070	O	PRO H	189	-15.582	40.532	87.599	1.00	54.44	H	O
ÁTOMO	3071	CB	PRO H	189	-16.045	40.378	90.432	1.00	49.09	H	C
ÁTOMO	3072	CG	PRO H	189	-16.485	41.712	90.883	1.00	45.12	H	C
ÁTOMO	3073	CD	PRO H	189	-15.246	42.289	91.522	1.00	45.67	H	C
ÁTOMO	3074	N	SER H	190	-14.158	42.220	87.985	1.00	58.65	H	N
ÁTOMO	3075	CA	SER H	190	-14.255	42.724	86.615	1.00	59.70	H	C
ÁTOMO	3076	C	SER H	190	-13.721	41.670	85.646	1.00	60.48	H	C
ÁTOMO	3077	O	SER H	190	-14.329	41.395	84.604	1.00	62.92	H	O
ÁTOMO	3078	CB	SER H	190	-13.471	44.041	86.453	1.00	60.55	H	C
ÁTOMO	3079	OG	SER H	190	-12.074	43.870	86.607	1.00	60.08	H	O
ÁTOMO	3080	N	GLU H	191	-12.573	41.101	85.992	1.00	57.13	H	N
ÁTOMO	3081	CA	GLU H	191	-11.954	40.053	85.196	1.00	55.55	H	C
ÁTOMO	3082	C	GLU H	191	-12.266	38.765	85.952	1.00	53.43	H	C
ÁTOMO	3083	O	GLU H	191	-12.058	38.691	87.155	1.00	54.38	H	O
ÁTOMO	3084	CB	GLU H	191	-10.448	40.259	85.112	1.00	57.09	H	C
ÁTOMO	3085	CG	GLU H	191	-10.003	41.394	84.207	1.00	57.68	H	C
ÁTOMO	3086	CD	GLU H	191	-8.493	41.571	84.234	1.00	73.34	H	C
ÁTOMO	3087	OE1	GLU H	191	-7.771	40.548	84.309	1.00	73.73	H	O
ÁTOMO	3088	OE2	GLU H	191	-8.020	42.728	84.179	1.00	81.17	H	O
ÁTOMO	3089	N	THR H	192	-12.749	37.753	85.243	1.00	50.94	H	N
ÁTOMO	3090	CA	THR H	192	-13.137	36.498	85.877	1.00	48.18	H	C
ÁTOMO	3091	C	THR H	192	-12.015	35.608	86.408	1.00	44.64	H	C
ÁTOMO	3092	O	THR H	192	-10.920	35.581	85.861	1.00	42.83	H	O
ÁTOMO	3093	CB	THR H	192	-13.983	35.681	84.920	1.00	47.39	H	C
ÁTOMO	3094	OG1	THR H	192	-13.208	35.335	83.770	1.00	52.75	H	O

ATOMO	3095	CG2	THR	H	192	-15.162	36.508	84.481	1.00	48.68	H	C
ATOMO	3096	N	VAL	H	193	-12.309	34.884	87.494	1.00	38.76	H	N
ATOMO	3097	CA	VAL	H	193	-11.346	33.959	88.096	1.00	35.65	H	C
ATOMO	3098	C	VAL	H	193	-12.108	32.663	88.285	1.00	30.66	H	C
ATOMO	3099	O	VAL	H	193	-13.128	32.641	88.932	1.00	30.71	H	O
ATOMO	3100	CB	VAL	H	193	-10.821	34.477	89.469	1.00	36.30	H	C
ATOMO	3101	CG1	VAL	H	193	-9.893	33.432	90.119	1.00	40.07	H	C
ATOMO	3102	CG2	VAL	H	193	-10.021	35.750	89.253	1.00	36.63	H	C
ATOMO	3103	N	THR	H	194	-11.609	31.584	87.698	1.00	27.25	H	N
ATOMO	3104	CA	THR	H	194	-12.289	30.298	87.766	1.00	31.84	H	C
ATOMO	3105	C	THR	H	194	-11.313	29.199	88.150	1.00	30.56	H	C
ATOMO	3106	O	THR	H	194	-10.205	29.164	87.619	1.00	35.10	H	O
ATOMO	3107	CB	THR	H	194	-12.922	29.966	86.365	1.00	34.30	H	C
ATOMO	3108	OG1	THR	H	194	-13.895	30.962	86.049	1.00	38.36	H	O
ATOMO	3109	CG2	THR	H	194	-13.599	28.614	86.345	1.00	25.67	H	C
ATOMO	3110	N	CYS	H	195	-11.689	28.313	89.081	1.00	27.97	H	N
ATOMO	3111	CA	CYS	H	195	-10.779	27.222	89.424	1.00	28.84	H	C
ATOMO	3112	C	CYS	H	195	-11.260	25.979	88.670	1.00	28.13	H	C
ATOMO	3113	O	CYS	H	195	-12.448	25.684	88.593	1.00	31.76	H	O
ATOMO	3114	CB	CYS	H	195	-10.746	26.924	90.934	1.00	27.33	H	C
ATOMO	3115	SG	CYS	H	195	-12.275	26.220	91.586	1.00	35.64	H	S
ATOMO	3116	N	ASN	H	196	-10.331	25.273	88.077	1.00	27.69	H	N
ATOMO	3117	CA	ASN	H	196	-10.679	24.077	87.321	1.00	29.01	H	C
ATOMO	3118	C	ASN	H	196	-10.263	22.871	88.114	1.00	26.91	H	C
ATOMO	3119	O	ASN	H	196	-9.078	22.668	88.365	1.00	23.66	H	O
ATOMO	3120	CB	ASN	H	196	-9.950	24.089	85.974	1.00	31.51	H	C
ATOMO	3121	CG	ASN	H	196	-9.856	25.473	85.388	1.00	29.50	H	C
ATOMO	3122	OD1	ASN	H	196	-8.794	26.090	85.385	1.00	25.64	H	O
ATOMO	3123	ND2	ASN	H	196	-10.980	25.972	84.887	1.00	34.55	H	N
ATOMO	3124	N	VAL	H	197	-11.243	22.047	88.475	1.00	24.98	H	N
ATOMO	3125	CA	VAL	H	197	-10.980	20.869	89.290	1.00	23.37	H	C
ATOMO	3126	C	VAL	H	197	-11.344	19.582	88.587	1.00	25.84	H	C
ATOMO	3127	O	VAL	H	197	-12.446	19.458	88.041	1.00	29.92	H	O
ATOMO	3128	CB	VAL	H	197	-11.811	20.937	90.611	1.00	24.03	H	C
ATOMO	3129	CG1	VAL	H	197	-11.512	19.731	91.490	1.00	23.67	H	C
ATOMO	3130	CG2	VAL	H	197	-11.467	22.237	91.355	1.00	16.84	H	C
ATOMO	3131	N	ALA	H	198	-10.431	18.623	88.607	1.00	28.07	H	N
ATOMO	3132	CA	ALA	H	198	-10.724	17.328	88.004	1.00	29.46	H	C
ATOMO	3133	C	ALA	H	198	-10.374	16.237	88.999	1.00	29.74	H	C
ATOMO	3134	O	ALA	H	198	-9.376	16.314	89.732	1.00	28.58	H	O
ATOMO	3135	CB	ALA	H	198	-9.937	17.125	86.666	1.00	31.83	H	C
ATOMO	3136	N	HIS	H	199	-11.234	15.224	89.035	1.00	32.53	H	N
ATOMO	3137	CA	HIS	H	199	-11.037	14.078	89.902	1.00	33.86	H	C
ATOMO	3138	C	HIS	H	199	-11.232	12.847	89.032	1.00	37.42	H	C
ATOMO	3139	O	HIS	H	199	-12.321	12.254	88.992	1.00	41.76	H	O
ATOMO	3140	CB	HIS	H	199	-12.073	14.034	90.998	1.00	32.12	H	C
ATOMO	3141	CG	HIS	H	199	-11.912	12.867	91.895	1.00	31.49	H	C
ATOMO	3142	ND1	HIS	H	199	-12.952	12.004	92.184	1.00	37.94	H	N
ATOMO	3143	CD2	HIS	H	199	-10.859	12.456	92.632	1.00	25.88	H	C
ATOMO	3144	CE1	HIS	H	199	-12.542	11.128	93.086	1.00	36.27	H	C
ATOMO	3145	NE2	HIS	H	199	-11.280	11.384	93.379	1.00	27.41	H	N
ATOMO	3146	N	PRO	H	200	-10.174	12.430	88.346	1.00	38.60	H	N
ATOMO	3147	CA	PRO	H	200	-10.230	11.270	87.453	1.00	39.66	H	C
ATOMO	3148	C	PRO	H	200	-11.011	10.047	87.931	1.00	41.49	H	C
ATOMO	3149	O	PRO	H	200	-11.835	9.493	87.180	1.00	43.64	H	O
ATOMO	3150	CB	PRO	H	200	-8.757	10.945	87.218	1.00	40.63	H	C
ATOMO	3151	CG	PRO	H	200	-8.077	12.314	87.320	1.00	40.85	H	C
ATOMO	3152	CD	PRO	H	200	-8.782	12.876	88.552	1.00	40.30	H	C
ATOMO	3153	N	ALA	H	201	-10.752	9.620	89.161	1.00	41.88	H	N
ATOMO	3154	CA	ALA	H	201	-11.384	8.424	89.704	1.00	41.92	H	C
ATOMO	3155	C	ALA	H	201	-12.908	8.316	89.607	1.00	44.22	H	C
ATOMO	3156	O	ALA	H	201	-13.438	7.201	89.624	1.00	47.89	H	O
ATOMO	3157	CB	ALA	H	201	-10.930	8.210	91.131	1.00	40.12	H	C
ATOMO	3158	N	SER	H	202	-13.602	9.448	89.483	1.00	42.09	H	N
ATOMO	3159	CA	SER	H	202	-15.060	9.475	89.371	1.00	40.45	H	C
ATOMO	3160	C	SER	H	202	-15.422	10.267	88.112	1.00	38.79	H	C
ATOMO	3161	O	SER	H	202	-16.543	10.725	87.937	1.00	39.19	H	O

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ÁTOMO 3162 CB  SER H 202      -15.682 10.171 90.599 1.00 42.08 H  C
ÁTOMO 3163 OG  SER H 202      -15.398 11.576 90.610 1.00 36.22 H  O
ÁTOMO 3164 N   SER H 203      -14.451 10.429 87.241 1.00 36.91 H  N
ÁTOMO 3165 CA  SER H 203      -14.633 11.176 86.008 1.00 40.54 H  C
ÁTOMO 3166 C   SER H 203      -15.268 12.515 86.250 1.00 38.44 H  C
ÁTOMO 3167 O   SER H 203      -16.147 12.919 85.496 1.00 40.82 H  O
ÁTOMO 3168 CB  SER H 203      -15.493 10.389 85.007 1.00 40.55 H  C
ÁTOMO 3169 OG  SER H 203      -14.994 9.087  84.878 1.00 47.70 H  O
ÁTOMO 3170 N   THR H 204      -14.829 13.222 87.286 1.00 35.03 H  N
ÁTOMO 3171 CA  THR H 204      -15.393 14.530 87.585 1.00 34.07 H  C
ÁTOMO 3172 C   THR H 204      -14.544 15.686 87.034 1.00 33.24 H  C
ÁTOMO 3173 O   THR H 204      -13.329 15.696 87.168 1.00 35.71 H  O
ÁTOMO 3174 CB  THR H 204      -15.537 14.741 89.112 1.00 33.83 H  C
ÁTOMO 3175 OG1 THR H 204      -16.255 13.646 89.687 1.00 35.82 H  O
ÁTOMO 3176 CG2 THR H 204      -16.312 15.999 89.393 1.00 34.28 H  C
ÁTOMO 3177 N   ALA H 205      -15.204 16.653 86.407 1.00 34.41 H  N
ÁTOMO 3178 CA  ALA H 205      -14.534 17.840 85.880 1.D0 38.94 H  C
ÁTOMO 3179 C   ALA H 205      -15.453 18.995 86.202 1.00 40.07 H  C
ÁTOMO 3180 O   ALA H 205      -16.600 19.055 85.724 1.00 42.36 H  O
ÁTOMO 3181 CB  ALA H 205      -14.322 17.753 84.382 1.00 39.13 H  C
ÁTOMO 3182 N   VAL H 206      -14.967 19.902 87.036 1.00 39.65 H  N
ÁTOMO 3183 CA  VAL H 206      -15.767 21.053 87.420 1.00 37.30 H  C
ÁTOMO 3184 C   VAL H 206      -14.996 22.353 87.222 1.00 37.10 H  C
ÁTOMO 3185 O   VAL H 206      -13.831 22.454 87.600 1.00 40.56 H  O
ÁTOMO 3186 CB  VAL H 206      -16.186 20.947 88.923 1.00 36.53 H  C
ÁTOMO 3187 CG1 VAL H 206      -16.886 22.189 89.369 1.00 32.26 H  C
ÁTOMO 3188 CG2 VAL H 206      -17.098 19.750 89.125 1.00 38.59 H  C
ÁTOMO 3189 N   ASP H 207      -15.626 23.335 86.601 1.00 35.38 H  N
ÁTOMO 3190 CA  ASP H 207      -14.990 24.640 86.473 1.00 37.03 H  C
ÁTOMO 3191 C   ASP H 207      -15.871 25.557 87.308 1.00 35.92 H  C
ÁTOMO 3192 O   ASP H 207      -17.040 25.744 86.999 1.00 39.88 H  O
ÁTOMO 3193 CB  ASP H 207      -14.957 25.124 85.019 1.00 37.71 H  C
ÁTOMO 3194 CG  ASP H 207      -14.115 24.246 84.144 1.00 39.42 H  C
ÁTOMO 3195 OD1 ASP H 207      -12.921 24.093 84.439 1.00 35.89 H  O
ÁTOMO 3196 OD2 ASP H 207      -14.656 23.689 83.162 1.00 48.31 H  O
ÁTOMO 3197 N   LYS H 208      -15.319 26.132 88.368 1.00 39.14 H  N
ÁTOMO 3198 CA  LYS H 208      -16.095 27.022 89.244 1.00 36.68 H  C
ÁTOMO 3199 C   LYS H 208      -15.655 28.476 89.192 1.00 35.58 H  C
ÁTOMO 3200 O   LYS H 208      -14.567 28.829 89.650 1.00 34.67 H  O
ÁTOMO 3201 CB  LYS H 208      -16.005 26.512 90.697 1.00 36.45 H  C
ÁTOMO 3202 CG  LYS H 208      -16.852 27.300 91.664 1.00 36.28 H  C
ÁTOMO 3203 CD  LYS H 208      -17.728 26.320 92.414 1.00 44.47 H  C
ÁTOMO 3204 CE  LYS H 208      -18.601 25.501 91.481 1.00 35.64 H  C
ÁTOMO 3205 NZ  LYS H 208      -19.805 26.271 91.120 1.00 51.91 H  N
ÁTOMO 3206 N   LYS H 209      -16.488 29.339 88.609 1.00 35.32 H  N
ÁTOMO 3207 CA  LYS H 209      -16.140 30.757 88.547 1.00 38.07 H  C
ÁTOMO 3208 C   LYS H 209      -16.346 31.368 89.952 1.00 36.98 H  C
ÁTOMO 3209 O   LYS H 209      -17.343 31.090 90.597 1.00 35.14 H  O
ÁTOMO 3210 CB  LYS H 209      -17.057 31.497 87.562 1.00 38.43 H  C
ÁTOMO 3211 CG  LYS H 209      -16.780 32.990 87.526 1.00 38.76 H  C
ÁTOMO 3212 CD  LYS H 209      -18.026 33.806 87.127 1.00 42.22 H  C
ÁTOMO 3213 CE  LYS H 209      -18.408 33.666 85.683 1.00 47.62 H  C
ÁTOMO 3214 NZ  LYS H 209      -19.364 34.788 85.268 1.00 49.98 H  N
ÁTOMO 3215 N   ILE H 210      -15.398 32.176 90.408 1.00 34.13 H  N
ÁTOMO 3216 CA  ILE H 210      -15.507 32.814 91.720 1.00 34.36 H  C
ÁTOMO 3217 C   ILE H 210      -16.341 34.106 91.545 1.00 36.70 H  C
ÁTOMO 3218 O   ILE H 210      -15.920 34.951 90.751 1.00 36.92 H  O
ÁTOMO 3219 CB  ILE H 210      -14.079 33.178 92.307 1.00 30.96 H  C
ÁTOMO 3220 CG1 ILE H 210      -13.188 31.942 92.372 1.00 25.29 H  C
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ÁTOMO	3221	CG2	ILE	H210	-14.210	33.676	93.754	1.00	19.07	H	C
ÁTOMO	3222	CD1	ILE	H210	-13.895	30.740	93.031	1.00	10.95	H	C
ÁTOMO	3223	OXT	ILE	H210	-17.412	34.268	92.175	1.00	42.73	H	O
TER	3224		ILE	H210							
ÁTOMO	3225	N	SER	I 7	14.834	-3.003	64.812	1.00	41.42	I	N
ÁTOMO	3226	CA	SER	I 7	16.214	-3.341	65.271	1.00	43.47	I	C
ÁTOMO	3227	C	SER	I 7	16.170	-3.928	66.678	1.00	40.84	I	C
ÁTOMO	3228	O	SER	I 7	15.109	-3.952	67.298	1.00	48.28	I	O
ÁTOMO	3229	CB	SER	I 7	17.091	-2.097	65.247	1.00	40.12	I	C
ÁTOMO	3230	OG	SER	I 7	18.449	-2.441	65.503	1.00	44.19	I	O
ÁTOMO	3231	N	THR	I 8	17.309	-4.405	67.177	1.00	34.11	I	N
ÁTOMO	3232	CA	THR	I 8	17.384	-5.002	68.513	1.00	29.26	I	C
ÁTOMO	3233	C	THR	I 8	18.542	-4.314	69.246	1.00	26.30	I	C
ÁTOMO	3234	O	THR	I 8	19.375	-3.666	68.616	1.00	24.38	I	O
ÁTOMO	3235	CB	THR	I 8	17.703	-6.516	68.458	1.00	28.98	I	C
ÁTOMO	3236	OG1	THR	I 8	18.969	-6.713	67.790	1.00	27.25	I	O
ÁTOMO	3237	CG2	THR	I 8	16.606	-7.253	67.702	1.00	36.34	I	C
ÁTOMO	3238	N	ALA	I 9	18.512	-4.390	70.571	1.00	21.02	I	N
ÁTOMO	3239	CA	ALA	I 9	19.568	-3.787	71.402	1.00	23.18	I	C
ÁTOMO	3240	C	ALA	I 9	20.950	-4.314	70.951	1.00	24.18	I	C
ÁTOMO	3241	O	ALA	I 9	21.937	-3.569	70.892	1.00	20.92	I	O
ÁTOMO	3242	CB	ALA	I 9	19.330	-4.175	72.849	1.00	21.47	I	C
ÁTOMO	3243	N	LEU	I 10	21.013	-5.611	70.655	1.00	24.97	I	N
ÁTOMO	3244	CA	LEU	I 10	22.307	-6.193	70.237	1.00	26.56	I	C
ÁTOMO	3245	C	LEU	I 10	22.751	-5.658	68.891	1.00	25.43	I	C
ÁTOMO	3246	O	LEU	I 10	23.914	-5.335	68.675	1.00	19.53	I	O
ÁTOMO	3247	CB	LEU	I 10	22.221	-7.732	70.202	1.00	28.67	I	C
ÁTOMO	3248	CG	LEU	I 10	23.461	-8.495	69.682	1.00	26.05	I	C
ÁTOMO	3249	CD1	LEU	I 10	24.700	-8.085	70.501	1.00	17.07	I	C
ÁTOMO	3250	CD2	LEU	I 10	23.224	-9.990	69.854	1.00	24.04	I	C
ÁTOMO	3251	N	ARG	I 11	21.798	-5.499	67.962	1.00	24.80	I	N
ÁTOMO	3252	CA	ARG	I 11	22.203	-4.971	66.672	1.00	27.70	I	C
ÁTOMO	3253	C	ARG	I 11	22.757	-3.549	66.827	1.00	26.39	I	C
ÁTOMO	3254	O	ARG	I 11	23.758	-3.173	66.224	1.00	21.33	I	O
ÁTOMO	3255	CB	ARG	I 11	20.991	-4.942	65.706	1.00	29.11	I	C
ÁTOMO	3256	CG	ARG	I 11	21.336	-4.327	64.341	1.00	37.83	I	C
ÁTOMO	3257	CD	ARG	I 11	20.129	-4.428	63.388	1.00	59.35	I	C
ÁTOMO	3258	NE	ARG	I 11	19.798	-5.830	63.125	1.00	77.61	I	N
ÁTOMO	3259	CZ	ARG	I 11	18.838	-6.243	62.294	1.00	87.85	I	C
ÁTOMO	3260	NH1	ARG	I 11	18.628	-7.546	62.116	1.00	88.83	I	N
ÁTOMO	3261	NH2	ARG	I 11	18.078	-5.355	61.640	1.00	93.94	I	N
ÁTOMO	3262	N	GLU	I 12	22.046	-2.733	67.605	1.00	26.89	I	N
ÁTOMO	3263	CA	GLU	I 12	22.466	-1.355	67.799	1.00	29.03	I	C
ÁTOMO	3264	C	GLU	I 12	23.851	-1.358	68.464	1.00	28.58	I	C
ÁTOMO	3265	O	GLU	I 12	24.695	-0.578	68.088	1.00	30.04	I	O
ÁTOMO	3266	CB	GLU	I 12	21.448	-0.564	68.676	1.00	31.80	I	C
ÁTOMO	3267	CG	GLU	I 12	20.044	-0.379	68.020	1.00	32.87	I	C
ÁTOMO	3268	CD	GLU	I 12	20.170	0.154	66.634	1.00	42.19	I	C
ÁTOMO	3269	OE1	GLU	I 12	20.725	1.266	66.479	1.00	53.05	I	O
ÁTOMO	3270	OE2	GLU	I 12	19.739	-0.539	65.689	1.00	56.29	I	O
ÁTOMO	3271	N	LEU	I 13	24.085	-2.252	69.415	1.00	26.72	I	N
ÁTOMO	3272	CA	LEU	I 13	25.411	-2.267	70.083	1.00	25.15	I	C
ÁTOMO	3273	C	LEU	I 13	26.478	-2.630	69.053	1.00	23.94	I	C
ÁTOMO	3274	O	LEU	I 13	27.532	-2.002	68.968	1.00	23.25	I	O
ÁTOMO	3275	CB	LEU	I 13	25.430	-3.257	71.250	1.00	19.59	I	C
ÁTOMO	3276	CG	LEU	I 13	26.822	-3.465	71.893	1.00	21.18	I	C
ÁTOMO	3277	CD1	LEU	I 13	27.527	-2.134	72.269	1.00	17.02	I	C
ÁTOMO	3278	CD2	LEU	I 13	26.609	-4.357	73.128	1.00	25.81	I	C
ÁTOMO	3279	N	ILE	I 14	26.169	-3.614	68.219	1.00	22.17	I	N
ÁTOMO	3280	CA	ILE	I 14	27.151	-3.987	67.195	1.00	22.12	I	C

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ÁTOMO	3281	C	ILE	I	14	27.462	-2.824	66.272	1.00	24.29	C
ÁTOMO	3282	O	ILE	I	14	28.630	-2.545	65.946	1.00	20.50	O
ÁTOMO	3283	CB	ILE	I	14	26.636	-5.195	66.369	1.00	22.54	C
ÁTOMO	3284	CG1	ILE	I	14	26.703	-6.427	67.261	1.00	21.93	C
ÁTOMO	3285	CG2	ILE	I	14	27.478	-5.405	65.142	1.00	25.41	C
ÁTOMO	3286	CD1	ILE	I	14	25.918	-7.632	66.756	1.00	8.06	C
ÁTOMO	3287	N	GLU	I	15	26.418	-2.123	65.839	1.00	21.20	N
ÁTOMO	3288	CA	GLU	I	15	26.638	-0.996	64.931	1.00	25.50	C
ÁTOMO	3289	C	GLU	I	15	27.501	0.044	65.592	1.00	28.78	C
ÁTOMO	3290	O	GLU	I	15	28.384	0.635	64.951	1.00	27.98	O
ÁTOMO	3291	CB	GLU	I	15	25.295	-0.372	64.555	1.00	27.43	C
ÁTOMO	3292	CG	GLU	I	15	24.551	-1.225	63.545	1.00	42.04	C
ÁTOMO	3293	CD	GLU	I	15	23.135	-0.746	63.339	1.00	54.77	C
ÁTOMO	3294	OE1	GLU	I	15	22.369	-1.442	62.633	1.00	58.59	O
ÁTOMO	3295	OE2	GLU	I	15	22.795	0.323	63.896	1.00	59.54	O
ÁTOMO	3296	N	GLU	I	16	27.273	0.278	66.892	1.00	25.33	N
ÁTOMO	3297	CA	GLU	I	16	28.104	1.315	67.541	1.00	26.19	C
ÁTOMO	3298	C	GLU	I	16	29.575	0.871	67.615	1.00	28.29	C
ÁTOMO	3299	O	GLU	I	16	30.478	1.680	67.399	1.00	29.14	O
ÁTOMO	3300	CB	GLU	I	16	27.565	1.649	68.961	1.00	26.31	C
ÁTOMO	3301	CG	GLU	I	16	28.461	2.581	69.830	1.00	20.48	C
ÁTOMO	3302	CD	GLU	I	16	28.623	3.961	69.264	1.00	32.83	C
ÁTOMO	3303	OE1	GLU	I	16	27.908	4.295	68.291	1.00	40.64	O
ÁTOMO	3304	OE2	GLU	I	16	29.472	4.734	69.788	1.00	43.53	O
ÁTOMO	3305	N	LEU	I	17	29.825	-0.397	67.929	1.00	28.42	N
ÁTOMO	3306	CA	LEU	I	17	31.221	-0.866	68.009	1.00	27.38	C
ÁTOMO	3307	C	LEU	I	17	31.904	-0.791	66.626	1.00	28.23	C
ÁTOMO	3308	O	LEU	I	17	33.088	-0.550	66.527	1.00	27.73	O
ÁTOMO	3309	CB	LEU	I	17	31.271	-2.277	68.521	1.00	26.55	C
ÁTOMO	3310	CG	LEU	I	17	30.675	-2.476	69.921	1.00	22.72	C
ÁTOMO	3311	CD1	LEU	I	17	30.866	-3.925	70.342	1.00	5.48	C
ÁTOMO	3312	CD2	LEU	I	17	31.304	-1.516	70.916	1.00	6.15	C
ÁTOMO	3313	N	VAL	I	18	31.121	-0.991	65.570	1.00	28.82	N
ÁTOMO	3314	CA	VAL	I	18	31.638	-0.900	64.202	1.00	26.07	C
ÁTOMO	3315	C	VAL	I	18	32.001	0.574	64.016	1.00	27.53	C
ÁTOMO	3316	O	VAL	I	18	33.103	0.905	63.597	1.00	28.33	O
ÁTOMO	3317	CB	VAL	I	18	30.542	-1.316	63.171	1.00	26.01	C
ÁTOMO	3318	CG1	VAL	I	18	30.970	-0.908	61.741	1.00	23.17	C
ÁTOMO	3319	CG2	VAL	I	18	30.355	-2.841	63.203	1.00	25.17	C
ÁTOMO	3320	N	ASN	I	19	31.090	1.462	64.389	1.00	26.75	N
ÁTOMO	3321	CA	ASN	I	19	31.322	2.900	64.248	1.00	29.23	C
ÁTOMO	3322	C	ASN	I	19	32.602	3.414	64.906	1.00	32.04	C
ÁTOMO	3323	O	ASN	I	19	33.333	4.206	64.313	1.00	35.66	O
ÁTOMO	3324	CB	ASN	I	19	30.153	3.700	64.826	1.00	25.97	C
ÁTOMO	3325	CG	ASN	I	19	28.965	3.675	63.923	1.00	30.76	C
ÁTOMO	3326	OD1	ASN	I	19	29.064	3.142	62.834	1.00	41.11	O
ÁTOMO	3327	ND2	ASN	I	19	27.830	4.230	64.362	1.00	36.69	N
ÁTOMO	3328	N	ILE	I	20	32.881	2.953	66.120	1.00	33.02	N
ÁTOMO	3329	CA	ILE	I	20	34.051	3.465	66.808	1.00	28.41	C
ÁTOMO	3330	C	ILE	I	20	35.341	2.745	66.514	1.00	31.21	C
ÁTOMO	3309	CB	LEU	I	17	31.271	-2.277	68.521	1.00	26.55	C
ÁTOMO	3310	CG	LEU	I	17	30.675	-2.476	69.921	1.00	22.72	C
ÁTOMO	3311	CD1	LEU	I	17	30.866	-3.925	70.342	1.00	5.48	C
ÁTOMO	3312	CD2	LEU	I	17	31.304	-1.516	70.916	1.00	6.15	C
ÁTOMO	3313	N	VAL	I	18	31.121	-0.991	65.570	1.00	28.82	N
ÁTOMO	3314	CA	VAL	I	18	31.638	-0.900	64.202	1.00	26.07	C
ÁTOMO	3315	C	VAL	I	18	32.001	0.574	64.016	1.00	27.53	C
ÁTOMO	3316	O	VAL	I	18	33.103	0.905	63.597	1.00	28.33	O
ÁTOMO	3317	CB	VAL	I	18	30.542	-1.316	63.171	1.00	26.01	C
ÁTOMO	3318	CG1	VAL	I	18	30.970	-0.908	61.741	1.00	23.17	C

ÁTOMO	3319	CG2	VAL	I	18	30.355	-2.841	63.203	1.00	25.17	I	C
ÁTOMO	3320	N	ASN	I	19	31.090	1.462	64.389	1.00	26.75	I	N
ÁTOMO	3321	CA	ASN	I	19	31.322	2.900	64.248	1.00	29.23	I	C
ÁTOMO	3322	C	ASN	I	19	32.602	3.414	64.906	1.00	32.04	I	C
ÁTOMO	3323	O	ASN	I	19	33.333	4.206	64.313	1.00	35.66	I	O
ÁTOMO	3324	CB	ASN	I	19	30.153	3.700	64.826	1.00	25.97	I	C
ÁTOMO	3325	CG	ASN	I	19	28.965	3.675	63.923	1.00	30.76	I	C
ÁTOMO	3326	ÓD1	ASN	I	19	29.064	3.142	62.834	1.00	41.11	I	O
ÁTOMO	3327	ND2	ASN	I	19	27.830	4.230	64.362	1.00	36.69	I	N
ÁTOMO	3328	N	ILE	I	20	32.881	2.953	66.120	1.00	33.02	I	N
ÁTOMO	3329	CA	ILE	I	20	34.051	3.465	66.808	1.00	28.41	I	C
ÁTOMO	3330	C	ILE	I	20	35.341	2.745	66.514	1.00	31.21	I	C
ÁTOMO	3331	O	ILE	I	20	36.404	3.188	66.974	1.00	36.21	I	O
ÁTOMO	3332	CB	ILE	I	20	33.808	3.522	68.353	1.00	27.04	I	C
ÁTOMO	3333	CG1	ILE	I	20	33.570	2.114	68.912	1.00	22.48	I	C
ÁTOMO	3334	CG2	ILE	I	20	32.621	4.425	68.633	1.00	26.74	I	C
ÁTOMO	3335	CD1	ILE	I	20	33.456	2.091	70.446	1.00	22.08	I	C
ÁTOMO	3336	N	THR	I	21	35.295	1.659	65.765	1.00	28.97	I	N
ÁTOMO	3337	CA	THR	I	21	36.542	0.961	65.468	1.00	37.12	I	C
ÁTOMO	3338	C	THR	I	21	37.026	1.176	64.016	1.00	43.61	I	C
ÁTOMO	3339	O	THR	I	21	38.030	0.547	63.631	1.00	41.22	I	O
ÁTOMO	3340	CB	THR	I	21	36.422	-0.551	65.744	1.00	34.69	I	C
ÁTOMO	3341	OG1	THR	I	21	35.269	-1.073	65.083	1.00	32.38	I	O
ÁTOMO	3342	CG2	THR	I	21	36.270	-0.797	67.257	1.00	40.35	I	C
ÁTOMO	3343	OXT	THR	I	21	36.409	1.993	63.291	1.00	55.16	I	O
ÁTOMO	3344	N	ALA	I	26	43.997	8.557	65.207	1.00	69.33	I	N
ÁTOMO	3345	CA	ALA	I	26	44.625	7.777	66.323	1.00	68.31	I	C
ÁTOMO	3346	C	ALA	I	26	43.714	6.622	66.754	1.00	64.43	I	C
ÁTOMO	3347	O	ALA	I	26	42.506	6.636	66.515	1.00	62.57	I	O
ÁTOMO	3348	CB	ALA	I	26	44.911	8.711	67.544	1.00	68.87	I	C
ÁTOMO	3349	N	PRO	I	27	44.291	5.604	67.401	1.00	61.86	I	N
ÁTOMO	3350	CA	PRO	I	27	43.464	4.466	67.845	1.00	58.39	I	C
ÁTOMO	3351	C	PRO	I	27	42.411	4.863	68.889	1.00	52.46	I	C
ÁTOMO	3352	O	PRO	I	27	42.542	5.887	69.578	1.00	50.21	I	O
ÁTOMO	3353	CB	PRO	I	27	44.481	3.486	68.436	1.00	60.58	I	C
ÁTOMO	3354	CG	PRO	I	27	45.851	3.951	67.829	1.00	64.15	I	C
ÁTOMO	3355	CD	PRO	I	27	45.700	5.452	67.814	1.00	61.04	I	C
ÁTOMO	3356	N	LEU	I	28	41.371	4.040	68.988	1.00	44.59	I	N
ÁTOMO	3357	CA	LEU	I	28	40.291	4.236	69.953	1.00	38.35	I	C
ÁTOMO	3358	C	LEU	I	28	40.815	4.411	71.393	1.00	36.55	I	C
ÁTOMO	3359	O	LEU	I	28	41.470	3.515	71.932	1.00	33.53	I	O
ÁTOMO	3360	CB	LEU	I	28	39.361	3.039	69.898	1.00	33.20	I	C
ÁTOMO	3361	CG	LEU	I	28	38.138	3.175	70.774	1.00	34.45	I	C
ÁTOMO	3362	CD1	LEU	I	28	37.435	4.451	70.368	1.00	31.50	I	C
ÁTOMO	3363	CD2	LEU	I	28	37.243	1.936	70.659	1.00	37.17	I	C
ÁTOMO	3364	N	CYS	I	29	40.517	5.546	72.026	1.00	35.16	I	N
ÁTOMO	3365	CA	CYS	I	29	40.968	5.823	73.401	1.00	36.16	I	C
ÁTOMO	3366	C	CYS	I	29	42.480	5.581	73.512	1.00	38.10	I	C
ÁTOMO	3367	O	CYS	I	29	43.005	5.144	74.564	1.00	39.22	I	O
ÁTOMO	3368	CB	CYS	I	29	40.268	4.916	74.411	1.00	35.11	I	C
ÁTOMO	3369	SG	CYS	I	29	38.447	4.968	74.417	1.00	37.70	I	S
ÁTOMO	3370	N	ASN	I	30	43.169	5.894	72.425	1.00	40.14	I	N
ÁTOMO	3371	CA	ASN	I	30	44.602	5.679	72.333	1.00	39.35	I	C
ÁTOMO	3372	C	ASN	I	30	45.329	5.949	73.624	1.00	36.93	I	C
ÁTOMO	3373	O	ASN	I	30	45.210	7.017	74.208	1.00	32.09	I	O
ÁTOMO	3374	CB	ASN	I	30	45.207	6.547	71.244	1.00	43.64	I	C
ÁTOMO	3375	CG	ASN	I	30	46.711	6.362	71.155	1.00	55.59	I	C
ÁTOMO	3376	OD1	ASN	I	30	47.194	5.233	70.959	1.00	62.75	I	O
ÁTOMO	3377	ND2	ASN	I	30	47.462	7.453	71.337	1.00	51.82	I	N

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ÁTOMO	3378	N	GLY	I	31	46.074	4.952	74.075	1.00	38.03	I	N
ÁTOMO	3379	CA	GLY	I	31	46.821	5.085	75.306	1.00	39.13	I	C
ÁTOMO	3380	C	GLY	I	31	46.164	4.380	76.488	1.00	39.21	I	C
ÁTOMO	3381	O	GLY	I	31	46.842	4.002	77.439	1.00	43.77	I	O
ÁTOMO	3382	N	SER	I	32	44.851	4.173	76.433	1.00	34.47	I	N
ÁTOMO	3383	CA	SER	I	32	44.168	3.551	77.558	1.00	32.83	I	C
ÁTOMO	3384	C	SER	I	32	44.218	2.038	77.452	1.00	29.83	I	C
ÁTOMO	3385	O	SER	I	32	44.077	1.493	76.377	1.00	31.08	I	O
ÁTOMO	3386	CB	SER	I	32	42.691	4.023	77.612	1.00	31.53	I	C
ÁTOMO	3387	OG	SER	I	32	42.650	5.395	77.934	1.00	34.76	I	O
ÁTOMO	3388	N	MET	I	33	44.379	1.376	78.587	1.00	27.38	I	N
ÁTOMO	3389	CA	MET	I	33	44.446	-0.073	78.662	1.00	24.36	I	C
ÁTOMO	3390	C	MET	I	33	43.337	-0.507	79.639	1.00	25.82	I	C
ÁTOMO	3391	O	MET	I	33	43.031	0.204	80.584	1.00	26.49	I	O
ÁTOMO	3392	CB	MET	I	33	45.777	-0.501	79.265	1.00	26.43	I	C
ÁTOMO	3393	CG	MET	I	33	46.998	0.144	78.599	1.00	24.81	I	C
ÁTOMO	3394	SD	MET	I	33	47.119	-0.525	76.995	1.00	42.00	I	S
ÁTOMO	3395	CE	MET	I	33	47.786	-2.194	77.366	1.00	17.53	I	C
ÁTOMO	3396	N	VAL	I	34	42.805	-1.705	79.425	1.00	21.73	I	N
ÁTOMO	3397	CA	VAL	I	34	41.756	-2.252	80.243	1.00	19.21	I	C
ÁTOMO	3398	C	VAL	I	34	42.041	-3.740	80.451	1.00	19.97	I	C
ÁTOMO	3399	O	VAL	I	34	42.957	-4.311	79.872	1.00	21.24	I	O
ÁTOMO	3400	CB	VAL	I	34	40.355	-2.169	79.540	1.00	17.84	I	C
ÁTOMO	3401	CG1	VAL	I	34	39.972	-0.700	79.385	1.00	18.18	I	C
ÁTOMO	3402	CG2	VAL	I	34	40.407	-2.897	78.187	1.00	13.68	I	C
ÁTOMO	3403	N	TRP	I	35	41.232	-4.380	81.264	1.00	20.73	I	N
ÁTOMO	3404	CA	TRP	I	35	41.500	-5.774	81.451	1.00	23.82	I	C
ÁTOMO	3405	C	TRP	I	35	40.614	-6.606	80.556	1.00	22.12	I	C
ÁTOMO	3406	O	TRP	I	35	39.561	-6.168	80.060	1.00	25.30	I	O
ÁTOMO	3407	CB	TRP	I	35	41.341	-6.148	82.905	1.00	26.51	I	C
ÁTOMO	3408	CG	TRP	I	35	40.032	-5.862	83.480	1.00	27.26	I	C
ÁTOMO	3409	CD1	TRP	I	35	38.843	-6.512	83.204	1.00	25.09	I	C
ÁTOMO	3410	CD2	TRP	I	35	39.775	-4.979	84.581	1.00	28.63	I	C
ÁTOMO	3411	NE1	TRP	I	35	37.854	-6.089	84.106	1.00	29.68	I	N
ÁTOMO	3412	CE2	TRP	I	35	38.402	-5.145	84.947	1.00	32.54	I	C
ÁTOMO	3413	CE3	TRP	I	35	40.568	-4.070	85.298	1.00	27.26	I	C
ÁTOMO	3414	CZ2	TRP	I	35	37.820	-4.434	85.992	1.00	29.43	I	C
ÁTOMO	3415	CZ3	TRP	I	35	39.987	-3.368	86.342	1.00	33.13	I	C
ÁTOMO	3416	CH2	TRP	I	35	38.623	-3.553	86.683	1.00	30.81	I	C
ÁTOMO	3417	N	SER	I	36	41.057	-7.830	80.328	1.00	22.08	I	N
ÁTOMO	3418	CA	SER	I	36	40.306	-8.723	79.463	1.00	22.46	I	C
ÁTOMO	3419	C	SER	I	36	39.083	-9.330	80.132	1.00	22.65	I	C
ÁTOMO	3420	O	SER	I	36	39.001	-9.447	81.350	1.00	24.38	I	O
ÁTOMO	3421	CB	SER	I	36	41.211	-9.882	79.041	1.00	21.35	I	C
ÁTOMO	3422	OG	SER	I	36	41.750	-10.425	80.244	1.00	29.08	I	O
ÁTOMO	3423	N	ILE	I	37	38.119	-9.702	79.315	1.00	22.95	I	N
ÁTOMO	3424	CA	ILE	I	37	36.992	-10.426	79.841	1.00	25.36	I	C
ÁTOMO	3425	C	ILE	I	37	37.418	-11.897	79.613	1.00	26.84	I	C
ÁTOMO	3426	O	ILE	I	37	38.241	-12.177	78.737	1.00	29.27	I	O
ÁTOMO	3427	CB	ILE	I	37	35.714	-10.086	79.094	1.00	25.04	I	C
ÁTOMO	3428	CG1	ILE	I	37	35.923	-9.994	77.620	1.00	34.62	I	C
ÁTOMO	3429	CG2	ILE	I	37	35.237	-8.686	79.517	1.00	30.64	I	C
ÁTOMO	3430	CD1	ILE	I	37	34.699	-9.222	76.962	1.00	30.59	I	C
ÁTOMO	3431	N	ASN	I	38	36.860	-12.821	80.361	1.00	30.34	I	N
ÁTOMO	3432	CA	ASN	I	38	37.290	-14.232	80.225	1.00	34.97	I	C
ÁTOMO	3433	C	ASN	I	38	36.210	-15.281	79.957	1.00	35.10	I	C
ÁTOMO	3434	O	ASN	I	38	36.406	-16.244	79.188	1.00	37.36	I	O
ÁTOMO	3435	CB	ASN	I	38	38.061	-14.611	81.512	1.00	39.38	I	C
ÁTOMO	3436	CG	ASN	I	38	39.216	-13.645	81.796	1.00	50.58	I	C

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ÁTOMO	3437	OD1	ASN	I	38	40.131	-13.509	80.975	1.00	56.26	I	O
ÁTOMO	3438	ND2	ASN	I	38	39.173	-12.956	82.949	1.00	56.07	I	N
ÁTOMO	3439	N	LEU	I	39	35.064	-15.116	80.589	1.00	32.58	I	N
ÁTOMO	3440	CA	LEU	I	39	34.009	-16.109	80.469	1.00	30.50	I	C
ÁTOMO	3441	C	LEU	I	39	32.927	-15.725	79.516	1.00	30.46	I	C
ÁTOMO	3442	O	LEU	I	39	32.739	-14.539	79.226	1.00	29.70	I	O
ÁTOMO	3443	CB	LEU	I	39	33.360	-16.349	81.840	1.00	31.84	I	C
ÁTOMO	3444	CG	LEU	I	39	34.306	-16.668	82.986	1.00	35.60	I	C
ÁTOMO	3445	CD1	LEU	I	39	33.523	-16.640	84.316	1.00	45.44	I	C
ÁTOMO	3446	CD2	LEU	I	39	34.963	-18.037	82.724	1.00	39.91	I	C
ÁTOMO	3447	N	THR	I	40	32.215	-16.739	79.028	1.00	32.11	I	N
ÁTOMO	3448	CA	THR	I	40	31.090	-16.516	78.137	1.00	36.92	I	C
ÁTOMO	3449	C	THR	I	40	29.935	-15.952	78.953	1.00	36.68	I	C
ÁTOMO	3450	O	THR	I	40	29.227	-15.040	78.508	1.00	41.36	I	O
ÁTOMO	3451	CB	THR	I	40	30.565	-17.848	77.503	1.00	38.87	I	C
ÁTOMO	3452	OG1	THR	I	40	30.405	-18.854	78.536	1.00	44.51	I	O
ÁTOMO	3453	CG2	THR	I	40	31.520	-18.325	76.432	1.00	38.41	I	C
ÁTOMO	3454	N	ALA	I	41	29.757	-16.503	80.145	1.00	34.46	I	N
ÁTOMO	3455	CA	ALA	I	41	28.683	-16.071	81.033	1.00	35.79	I	C
ÁTOMO	3456	C	ALA	I	41	28.903	-14.655	81.599	1.00	33.42	I	C
ÁTOMO	3457	O	ALA	I	41	30.012	-14.303	82.031	1.00	31.37	I	O
ÁTOMO	3458	CB	ALA	I	41	28.522	-17.069	82.189	1.00	37.14	I	C
ÁTOMO	3459	N	GLY	I	42	27.831	-13.862	81.582	1.00	28.18	I	N
ÁTOMO	3460	CA	GLY	I	42	27.864	-12.495	82.100	1.00	26.16	I	C
ÁTOMO	3461	C	GLY	I	42	28.773	-11.607	81.290	1.00	25.89	I	C
ÁTOMO	3462	O	GLY	I	42	29.338	-10.675	81.811	1.00	23.85	I	O
ÁTOMO	3463	N	MET	I	43	28.932	-11.910	80.003	1.00	27.06	I	N
ÁTOMO	3464	CA	MET	I	43	29.835	-11.125	79.167	1.00	26.49	I	C
ÁTOMO	3465	C	MET	I	43	29.514	-9.613	79.089	1.00	25.63	I	C
ÁTOMO	3466	O	MET	I	43	30.422	-8.806	79.072	1.00	24.70	I	O
ÁTOMO	3467	CB	MET	I	43	29.863	-11.691	77.726	1.00	25.09	I	C
ÁTOMO	3468	CG	MET	I	43	30.876	-10.946	76.823	1.00	31.87	I	C
ÁTOMO	3469	SD	MET	I	43	30.927	-11.571	75.102	1.00	50.36	I	S
ÁTOMO	3470	CE	MET	I	43	29.431	-10.913	74.580	1.00	49.83	I	C
ÁTOMO	3471	N	TYR	I	44	28.228	-9.239	78.967	1.00	23.56	I	N
ÁTOMO	3472	CA	TYR	I	44	27.920	-7.799	78.843	1.00	21.86	I	C
ÁTOMO	3473	C	TYR	I	44	28.349	-7.096	80.124	1.00	19.99	I	C
ÁTOMO	3474	O	TYR	I	44	28.948	-6.028	80.088	1.00	23.39	I	O
ÁTOMO	3475	CB	TYR	I	44	26.440	-7.549	78.655	1.00	23.84	I	C
ÁTOMO	3476	CG	TYR	I	44	25.878	-8.026	77.350	1.00	25.71	I	C
ÁTOMO	3477	CD1	TYR	I	44	26.263	-7.427	76.154	1.00	25.80	I	C
ÁTOMO	3478	CD2	TYR	I	44	24.952	-9.061	77.315	1.00	27.28	I	C
ÁTOMO	3479	CE1	TYR	I	44	25.733	-7.842	74.947	1.00	27.01	I	C
ÁTOMO	3480	CE2	TYR	I	44	24.415	-9.498	76.100	1.00	22.75	I	C
ÁTOMO	3481	CZ	TYR	I	44	24.824	-8.867	74.922	1.00	25.01	I	C
ÁTOMO	3482	OH	TYR	I	44	24.320	-9.249	73.690	1.00	22.75	I	O
ÁTOMO	3483	N	CYS	I	45	28.048	-7.724	81.245	1.00	17.09	I	N
ÁTOMO	3484	CA	CYS	I	45	28.450	-7.120	82.510	1.00	17.82	I	C
ÁTOMO	3485	C	CYS	I	45	29.967	-7.059	82.631	1.00	16.25	I	C
ÁTOMO	3486	O	CYS	I	45	30.515	-6.076	83.113	1.00	21.21	I	O
ÁTOMO	3487	CB	CYS	I	45	27.928	-7.903	83.689	1.00	15.24	I	C
ÁTOMO	3488	SG	CYS	I	45	26.116	-7.936	83.883	1.00	20.73	I	S
ÁTOMO	3489	N	ALA	I	46	30.665	-8.135	82.267	1.00	18.66	I	N
ÁTOMO	3490	CA	ALA	I	46	32.128	-8.093	82.348	1.00	17.71	I	C
ÁTOMO	3491	C	ALA	I	46	32.732	-7.009	81.432	1.00	19.91	I	C
ÁTOMO	3492	O	ALA	I	46	33.705	-6.368	81.794	1.00	20.23	I	O
ÁTOMO	3493	CB	ALA	I	46	32.746	-9.518	81.983	1.00	15.35	I	C
ÁTOMO	3494	N	ALA	I	47	32.200	-6.861	80.216	1.00	23.62	I	N

ÁTOMO	3495	CA	ALA	I	47	32.684	-5.845	79.286	1.00	22.12	I	C
ÁTOMO	3496	C	ALA	I	47	32.457	-4.476	79.896	1.00	21.78	I	C
ÁTOMO	3497	O	ALA	I	47	33.305	-3.602	79.813	1.00	18.94	I	O
ÁTOMO	3498	CB	ALA	I	47	31.927	-5.952	77.927	1.00	18.65	I	C
ÁTOMO	3499	N	LEU	I	48	31.287	-4.290	80.481	1.00	21.70	I	N
ÁTOMO	3500	CA	LEU	I	48	31.014	-2.995	81.145	1.00	21.03	I	C
ÁTOMO	3501	C	LEU	I	48	32.041	-2.745	82.292	1.00	21.18	I	C
ÁTOMO	3502	O	LEU	I	48	32.589	-1.653	82.438	1.00	16.61	I	O
ÁTOMO	3503	CB	LEU	I	48	29.582	-3.040	81.727	1.00	21.70	I	C
ÁTOMO	3504	CG	LEU	I	48	29.216	-1.822	82.642	1.00	13.05	I	C
ÁTOMO	3505	CD1	LEU	I	48	29.319	-0.520	81.854	1.00	9.05	I	C
ÁTOMO	3506	CD2	LEU	I	48	27.771	-2.056	83.235	1.00	15.13	I	C
ÁTOMO	3507	N	GLU	I	49	32.255	-3.767	83.108	1.00	20.18	I	N
ÁTOMO	3508	CA	GLU	I	49	33.203	-3.663	84.258	1.00	19.63	I	C
ÁTOMO	3509	C	GLU	I	49	34.601	-3.275	83.786	1.00	20.55	I	C
ÁTOMO	3510	O	GLU	I	49	35.335	-2.512	84.439	1.00	26.90	I	O
ÁTOMO	3511	CB	GLU	I	49	33.226	-5.012	85.031	1.00	17.04	I	C
ÁTOMO	3512	CG	GLU	I	49	31.984	-5.184	85.968	1.00	20.14	I	C
ÁTOMO	3513	CD	GLU	I	49	31.987	-4.123	87.040	1.00	22.52	I	C
ÁTOMO	3514	OE1	GLU	I	49	32.933	-4.160	87.843	1.00	21.57	I	O
ÁTOMO	3515	OE2	GLU	I	49	31.078	-3.244	87.073	1.00	10.29	I	O
ÁTOMO	3516	N	SER	I	50	34.973	-3.759	82.611	1.00	18.39	I	N
ÁTOMO	3517	CA	SER	I	50	36.307	-3.428	82.082	1.00	18.04	I	C
ÁTOMO	3518	C	SER	I	50	36.368	-2.022	81.492	1.00	18.38	I	C
ÁTOMO	3519	O	SER	I	50	37.235	-1.228	81.848	1.00	19.69	I	O
ÁTOMO	3520	CB	SER	I	50	36.684	-4.412	80.956	1.00	16.41	I	C
ÁTOMO	3521	OG	SER	I	50	37.988	-4.119	80.518	1.00	14.68	I	O
ÁTOMO	3522	N	LEU	I	51	35.399	-1.714	80.618	1.00	19.34	I	N
ÁTOMO	3523	CA	LEU	I	51	35.374	-0.436	79.913	1.00	17.71	I	C
ÁTOMO	3524	C	LEU	I	51	34.994	0.798	80.754	1.00	19.46	I	C
ÁTOMO	3525	O	LEU	I	51	35.371	1.923	80.412	1.00	21.21	I	O
ÁTOMO	3526	CB	LEU	I	51	34.421	-0.552	78.686	1.00	16.17	I	C
ÁTOMO	3527	CG	LEU	I	51	35.014	-1.455	77.585	1.00	11.29	I	C
ÁTOMO	3528	CD1	LEU	I	51	34.002	-1.641	76.483	1.00	7.04	I	C
ÁTOMO	3529	CD2	LEU	I	51	36.271	-0.787	76.972	1.00	14.57	I	C
ÁTOMO	3530	N	ILE	I	52	34.326	0.582	81.875	1.00	18.04	I	N
ÁTOMO	3531	CA	ILE	I	52	33.927	1.732	82.725	1.00	16.93	I	C
ÁTOMO	3532	C	ILE	I	52	35.161	2.394	83.304	1.00	17.40	I	C
ÁTOMO	3533	O	ILE	I	52	35.133	3.574	83.726	1.00	22.32	I	O
ÁTOMO	3534	CB	ILE	I	52	32.981	1.272	83.897	1.00	17.81	I	C
ÁTOMO	3535	CG1	ILE	I	52	32.253	2.493	84.538	1.00	21.78	I	C
ÁTOMO	3536	CG2	ILE	I	52	33.789	0.520	84.971	1.00	9.73	I	C
ÁTOMO	3537	CD1	ILE	I	52	31.212	3.105	83.597	1.00	8.98	I	C
ÁTOMO	3538	N	ASN	I	53	36.272	1.649	83.374	1.00	22.00	I	N
ÁTOMO	3539	CA	ASN	I	53	37.493	2.243	83.923	1.00	21.48	I	C
ÁTOMO	3540	C	ASN	I	53	38.211	3.184	82.999	1.00	21.88	I	C
ÁTOMO	3541	O	ASN	I	53	39.138	3.887	83.431	1.00	23.95	I	O
ÁTOMO	3542	CB	ASN	I	53	38.459	1.157	84.358	1.00	18.16	I	C
ÁTOMO	3543	CG	ASN	I	53	37.914	0.385	85.511	1.00	29.89	I	C
ÁTOMO	3544	OD1	ASN	I	53	37.311	0.977	86.434	1.00	31.88	I	0
ÁTOMO	3545	ND2	ASN	I	53	38.068	-0.941	85.467	1.00	41.94	I	N
ÁTOMO	3546	N	VAL	I	54	37.781	3.241	81.733	1.00	23.83	I	N
ÁTOMO	3547	CA	VAL	I	54	38.471	4.131	80.784	1.00	25.45	I	C
ÁTOMO	3548	C	VAL	I	54	38.204	5.591	81.101	1.00	29.82	I	C
ÁTOMO	3549	O	VAL	I	54	37.062	5.987	81.206	1.00	31.49	I	O
ÁTOMO	3550	CB	VAL	I	54	38.064	3.832	79.306	1.00	20.94	I	C
ÁTOMO	3551	CG1	VAL	I	54	38.791	4.820	78.352	1.00	11.51	I	C
ÁTOMO	3552	CG2	VAL	I	54	38.453	2.385	78.975	1.00	17.89	I	C
ÁTOMO	3553	N	SER	I	55	39.278	6.374	81.258	1.00	33.89	I	N
ÁTOMO	3554	CA	SER	I	55	39.169	7.797	81.566	1.00	34.19	I	C
ÁTOMO	3555	C	SER	I	55	39.539	8.646	80.383	1.00	33.52	I	C

ÁTOMO	3556	O	SER	I	55	40.396	8.279	79.553	1.00	37.91	I	O
ÁTOMO	3557	CB	SER	I	55	40.112	8.161	82.724	1.00	35.58	I	C
ÁTOMO	3558	OG	SER	I	55	40.101	9.570	82.957	1.00	53.86	I	O
ÁTOMO	3559	N	GLY	I	56	38.880	9.774	80.267	1.00	28.58	I	N
ÁTOMO	3560	CA	GLY	I	56	39.231	10.704	79.205	1.00	28.05	I	C
ÁTOMO	3561	C	GLY	I	56	38.958	10.276	77.774	1.00	29.97	I	C
ÁTOMO	3562	O	GLY	I	56	39.636	10.722	76.851	1.00	30.95	I	O
ÁTOMO	3563	N	CYS	I	57	37.958	9.430	77.564	1.00	27.62	I	N
ÁTOMO	3564	CA	CYS	I	57	37.678	8.988	76.196	1.00	24.77	I	C
ÁTOMO	3565	C	CYS	I	57	36.192	9.169	75.867	1.00	26.27	I	C
ÁTOMO	3566	O	CYS	I	57	35.354	8.295	76.128	1.00	27.58	I	O
ÁTOMO	3567	CB	CYS	I	57	38.064	7.535	76.040	1.00	24.74	I	C
ÁTOMO	3568	SG	CYS	I	57	38.040	7.007	74.290	1.00	28.66	I	S
ÁTOMO	3569	N	SER	I	58	35.861	10.298	75.257	1.00	22.20	I	N
ÁTOMO	3570	CA	SER	I	58	34.449	10.516	74.948	1.00	18.10	I	C
ÁTOMO	3571	C	SER	I	58	33.950	9.507	73.891	1.00	18.99	I	C
ÁTOMO	3572	O	SER	I	58	32.743	9.210	73.802	1.00	20.20	I	O
ÁTOMO	3573	CB	SER	I	58	34.241	11.957	74.461	1.00	13.59	I	C
ÁTOMO	3574	OG	SER	I	58	35.149	12.274	73.404	1.00	17.58	I	O
ÁTOMO	3575	N	ALA	I	59	34.845	8.928	73.104	1.00	20.43	I	N
ÁTOMO	3576	CA	ALA	I	59	34.351	7.992	72.058	1.00	20.58	I	C
ÁTOMO	3577	C	ALA	I	59	33.723	6.699	72.583	1.00	23.25	I	C
ÁTOMO	3578	O	ALA	I	59	32.944	6.047	71.865	1.00	24.07	I	O
ÁTOMO	3579	CB	ALA	I	59	35.473	7.625	71.108	1.00	17.69	I	C
ÁTOMO	3580	N	ILE	I	60	34.084	6.309	73.804	1.00	25.09	I	N
ÁTOMO	3581	CA	ILE	I	60	33.563	5.064	74.404	1.00	25.81	I	C
ÁTOMO	3582	C	ILE	I	60	32.326	5.257	75.280	1.00	25.44	I	C
ÁTOMO	3583	O	ILE	I	60	31.719	4.292	75.753	1.00	29.14	I	O
ÁTOMO	3584	CB	ILE	I	60	34.693	4.382	75.268	1.00	26.48	I	C
ÁTOMO	3585	CG1	ILE	I	60	34.429	2.873	75.383	1.00	29.24	I	C
ÁTOMO	3586	CG2	ILE	I	60	34.770	5.007	76.682	1.00	27.68	I	C
ÁTOMO	3587	CD1	ILE	I	60	34.788	2.139	74.124	1.00	35.86	I	C
ÁTOMO	3588	N	GLU	I	61	31.916	6.504	75.486	1.00	27.58	I	N
ÁTOMO	3589	CA	GLU	I	61	30.786	6.713	76.376	1.00	28.09	I	C
ÁTOMO	3590	C	GLU	I	61	29.501	6.014	75.949	1.00	23.64	I	C
ÁTOMO	3591	O	GLU	I	61	28.844	5.387	76.747	1.00	22.27	I	O
ÁTOMO	3592	CB	GLU	I	61	30.530	8.216	76.576	1.00	28.67	I	C
ÁTOMO	3593	CG	GLU	I	61	29.647	8.435	77.799	1.00	56.14	I	C
ÁTOMO	3594	CD	GLU	I	61	29.437	9.895	78.121	1.00	79.31	I	C
ÁTOMO	3595	OE1	GLU	I	61	30.453	10.575	78.443	1.00	87.35	I	O
ÁTOMO	3596	OE2	GLU	I	61	28.268	10.350	78.034	1.00	78.03	I	O
ÁTOMO	3597	N	LYS	I	62	29.156	6.110	74.675	1.00	22.10	I	N
ÁTOMO	3598	CA	LYS	I	62	27.941	5.485	74.230	1.00	21.59	I	C
ÁTOMO	3599	C	LYS	I	62	28.015	3.960	74.460	1.00	22.50	I	C
ÁTOMO	3600	O	LYS	I	62	27.049	3.348	74.913	1.00	25.76	I	O
ÁTOMO	3601	CB	LYS	I	62	27.724	5.788	72.749	1.00	25.19	I	C
ÁTOMO	3602	CG	LYS	I	62	26.416	5.255	72.179	1.00	23.62	I	C
ÁTOMO	3603	CD	LYS	I	62	26.218	5.870	70.789	1.00	40.59	I	C
ÁTOMO	3604	CE	LYS	I	62	25.050	5.242	70.035	1.00	37.34	I	C
ÁTOMO	3605	NZ	LYS	I	62	24.805	5.985	68.770	1.00	37.46	I	N
ÁTOMO	3606	N	THR	I	63	29.154	3.350	74.157	1.00	17.72	I	N
ÁTOMO	3607	CA	THR	I	63	29.309	1.914	74.390	1.00	16.79	I	C
ÁTOMO	3608	C	THR	I	63	29.105	1.594	75.880	1.00	19.10	I	C
ÁTOMO	3609	O	THR	I	63	28.441	0.633	76.237	1.00	18.80	I	O
ÁTOMO	3610	CB	THR	I	63	30.702	1.454	73.932	1.00	19.14	I	C
ÁTOMO	3611	OG1	THR	I	63	30.807	1.607	72.498	1.00	24.84	I	O
ÁTOMO	3612	CG2	THR	I	63	30.917	-0.029	74.284	1.00	16.77	I	C
ÁTOMO	3613	N	GLN	I	64	29.666	2.414	76.786	1.00	18.38	I	N
ÁTOMO	3614	CA	GLN	I	64	29.439	2.123	78.195	1.00	18.26	I	C

ÁTOMO	3615	C	GLN	I	64	27.944	2.127	78.570	1.00	17.32	I C
ÁTOMO	3616	O	GLN	I	64	27.476	1.301	79.334	1.00	17.63	I O
ÁTOMO	3617	CB	GLN	I	64	30.194	3.123	79.104	1.00	14.96	I C
ÁTOMO	3618	CG	GLN	I	64	31.712	3.131	78.912	1.00	21.19	I C
ÁTOMO	3619	CD	GLN	I	64	32.343	4.307	79.685	1.00	20.97	I C
ÁTOMO	3620	OE1	GLN	I	64	31.656	5.290	79.958	1.00	26.32	I O
ÁTOMO	3621	NE2	GLN	I	64	33.617	4.184	80.081	1.00	16.17	I N
ÁTOMO	3622	N	ARG	I	65	27.212	3.077	78.002	1.00	16.69	I N
ÁTOMO	3623	CA	ARG	I	65	25.802	3.242	78.268	1.00	18.05	I C
ÁTOMO	3624	C	ARG	I	65	24.998	2.120	77.653	1.00	20.85	I C
ÁTOMO	3625	O	ARG	I	65	24.035	1.620	78.264	1.00	21.77	I O
ÁTOMO	3626	CB	ARG	I	65	25.319	4.587	77.714	1.00	17.49	I C
ÁTOMO	3627	CG	ARG	I	65	25.935	5.731	78.482	1.00	27.25	I C
ÁTOMO	3628	CD	ARG	I	65	25.514	7.103	77.925	1.00	36.17	I C
ÁTOMO	3629	NE	ARG	I	65	26.063	8.153	78.793	1.00	49.27	I N
ÁTOMO	3630	CZ	ARG	I	65	25.587	8.457	79.994	1.00	41.70	I C
ÁTOMO	3631	NH1	ARG	I	65	24.542	7.800	80.475	1.00	30.90	I N
ÁTOMO	3632	NH2	ARG	I	65	26.170	9.417	80.718	1.00	44.99	I N
ÁTOMO	3633	N	MET	I	66	25.390	1.695	76.453	1.00	20.23	I N
ÁTOMO	3634	CA	MET	I	66	24.683	0.574	75.849	1.00	16.65	I C
ÁTOMO	3635	C	MET	I	66	24.910	-0.730	76.616	1.00	15.75	I C
ÁTOMO	3636	O	MET	I	66	23.998	-1.524	76.829	1.00	17.29	I O
ÁTOMO	3637	CB	MET	I	66	25.106	0.430	74.388	1.00	19.30	I C
ÁTOMO	3638	CG	MET	I	66	24.557	1.557	73.502	1.00	27.33	I C
ÁTOMO	3639	SD	MET	I	66	25.325	1.443	71.840	1.00	24.80	I S
ÁTOMO	3640	CE	MET	I	66	23.846	1.367	70.841	1.00	24.09	I C
ÁTOMO	3641	N	LEU	I	67	26.138	-0.951	77.060	1.00	17.99	I N
ÁTOMO	3642	CA	LEU	I	67	26.418	-2.129	77.880	1.00	16.87	I C
ÁTOMO	3643	C	LEU	I	67	25.658	-2.015	79.226	1.00	16.23	I C
ÁTOMO	3644	O	LEU	I	67	25.184	-3.016	79.799	1.00	19.29	I O
ÁTOMO	3645	CB	LEU	I	67	27.947	-2.218	78.136	1.00	18.99	I C
ÁTOMO	3646	CG	LEU	I	67	28.755	-2.694	76.907	1.00	18.84	I C
ÁTOMO	3647	CD1	LEU	I	67	30.276	-2.561	77.275	1.00	15.28	I C
ÁTOMO	3648	CD2	LEU	I	67	28.441	-4.176	76.515	1.00	15.11	I C
ÁTOMO	3649	N	SER	I	68	25.525	-0.799	79.745	1.00	13.33	I N
ÁTOMO	3650	CA	SER	I	68	24.777	-0.628	80.994	1.00	16.33	I C
ÁTOMO	3651	C	SER	I	68	23.306	-1.021	80.848	1.00	19.31	I C
ÁTOMO	3652	O	SER	I	68	22.656	-1.463	81.806	1.00	21.40	I O
ÁTOMO	3653	CB	SER	I	68	24.879	0.834	81.481	1.00	15.42	I C
ÁTOMO	3654	OG	SER	I	68	26.229	1.168	81.816	1.00	24.18	I O
ÁTOMO	3655	N	GLY	I	69	22.788	-0.863	79.636	1.00	17.78	I N
ÁTOMO	3656	CA	GLY	I	69	21.422	-1.229	79.310	1.00	13.18	I C
ÁTOMO	3657	C	GLY	I	69	21.290	-2.746	79.355	1.00	15.71	I C
ÁTOMO	3658	O	GLY	I	69	20.279	-3.242	79.800	1.00	14.07	I O
ÁTOMO	3659	N	PHE	I	70	22.324	-3.495	78.889	1.00	17.98	I N
ÁTOMO	3660	CA	PHE	I	70	22.265	-4.948	78.947	1.00	18.28	I C
ÁTOMO	3661	C	PHE	I	70	22.523	-5.477	80.370	1.00	18.48	I C
ÁTOMO	3662	O	PHE	I	70	22.034	-6.564	80.757	1.00	18.81	I O
ÁTOMO	3663	CB	PHE	I	70	23.346	-5.574	78.019	1.00	18.99	I C
ÁTOMO	3664	CG	PHE	I	70	22.947	-5.624	76.570	1.00	19.17	I C
ÁTOMO	3665	CD1	PHE	I	70	23.433	-4.685	75.683	1.00	13.86	I C
ÁTOMO	3666	CD2	PHE	I	70	22.121	-6.634	76.115	1.00	14.02	I C
ÁTOMO	3667	CE1	PHE	I	70	23.086	-4.746	74.297	1.00	15.78	I C
ÁTOMO	3668	CE2	PHE	I	70	21.757	-6.719	74.732	1.00	21.48	I C
ÁTOMO	3669	CZ	PHE	I	70	22.244	-5.766	73.841	1.00	19.98	I C
ÁTOMO	3670	N	CYS	I	71	23.299	-4.720	81.159	1.00	15.72	I N
ÁTOMO	3671	CA	CYS	I	71	23.613	-5.186	82.511	1.00	19.25	I C
ÁTOMO	3672	C	CYS	I	71	23.288	-4.039	83.511	1.00	19.54	I C
ÁTOMO	3673	O	CYS	I	71	24.209	-3.472	84.088	1.00	17.72	I O

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ÁTOMO	3674	CB	CYS	I	71	25.118	-5.443	82.612	1.00	17.63	I	C
ÁTOMO	3675	SG	CYS	I	71	25.681	-5.978	84.268	1.00	22.27	I	S
ÁTOMO	3676	N	PRO	I	72	22.004	-3.667	83.656	1.00	20.43	I	N
ÁTOMO	3677	CA	PRO	I	72	21.615	-2.570	84.563	1.00	20.56	I	C
ÁTOMO	3678	C	PRO	I	72	21.849	-2.796	86.063	1.00	18.35	I	C
ÁTOMO	3679	O	PRO	I	72	22.041	-1.806	86.804	1.00	18.45	I	O
ÁTOMO	3680	CB	PRO	I	72	20.124	-2.345	84.201	1.00	20.03	I	C
ÁTOMO	3681	CG	PRO	I	72	19.660	-3.743	83.874	1.00	22.09	I	C
ÁTOMO	3682	CD	PRO	I	72	20.825	-4.260	83.006	1.00	22.41	I	C
ÁTOMO	3683	N	HIS	I	73	21.844	-4.066	86.502	1.00	19.47	I	N
ÁTOMO	3684	CA	HIS	I	73	22.089	-4.412	87.888	1.00	19.66	I	C
ÁTOMO	3685	C	HIS	I	73	23.381	-5.238	87.946	1.00	21.68	I	C
ÁTOMO	3686	O	HIS	I	73	23.562	-6.213	87.207	1.00	25.46	I	O
ÁTOMO	3687	CB	HIS	I	73	20.900	-5.199	88.485	1.00	20.83	I	C
ÁTOMO	3688	CG	HIS	I	73	19.672	-4.351	88.703	1.00	22.23	I	C
ÁTOMO	3689	ND1	HIS	I	73	19.304	-3.876	89.943	1.00	16.76	I	N
ÁTOMO	3690	CD2	HIS	I	73	18.770	-3.846	87.820	1.00	24.20	I	C
ÁTOMO	3691	CE1	HIS	I	73	18.222	-3.109	89.811	1.00	16.41	I	C
ÁTOMO	3692	NE2	HIS	I	73	17.878	-3.082	88.540	1.00	15.39	I	N
ÁTOMO	3693	N	LYS	I	74	24.275	-4.823	88.824	1.00	21.95	I	N
ÁTOMO	3694	CA	LYS	I	74	25.558	-5.460	88.935	1.00	21.35	I	C
ÁTOMO	3695	C	LYS	I	74	25.414	-6.919	89.274	1.00	23.89	I	C
ÁTOMO	3696	O	LYS	I	74	24.528	-7.310	90.044	1.00	22.28	I	O
ÁTOMO	3697	CB	LYS	I	74	26.406	-4.771	90.030	1.00	22.82	I	C
ÁTOMO	3698	CG	LYS	I	74	27.911	-5.064	89.908	1.00	21.50	I	C
ÁTOMO	3699	CD	LYS	I	74	28.751	-4.501	91.096	1.00	16.86	I	C
ÁTOMO	3700	CE	LYS	I	74	28.597	-5.307	92.383	1.00	15.58	I	C
ÁTOMO	3701	NZ	LYS	I	74	29.438	-4.661	93.459	1.00	28.77	I	N
ÁTOMO	3702	N	VAL	I	75	26.291	-7.728	88.692	1.00	30.24	I	N
ÁTOMO	3703	CA	VAL	I	75	26.315	-9.147	88.987	1.00	32.25	I	C
ÁTOMO	3704	C	VAL	I	75	27.653	-9.491	89.629	1.00	33.25	I	C
ÁTOMO	3705	O	VAL	I	75	28.590	-8.668	89.633	1.00	36.67	I	O
ÁTOMO	3706	CB	VAL	I	75	26.106	-9.983	87.715	1.00	31.71	I	C
ÁTOMO	3707	CG1	VAL	I	75	24.737	-9.626	87.122	1.00	30.96	I	C
ÁTOMO	3708	CG2	VAL	I	75	27.251	-9.701	86.667	1.00	37.27	I	C
ÁTOMO	3709	N	SER	I	76	27.742	-10.679	90.227	1.00	38.75	I	N
ÁTOMO	3710	CA	SER	I	76	29.010	-11.098	90.839	1.00	43.38	I	C
ÁTOMO	3711	C	SER	I	76	30.110	-11.307	89.793	1.00	45.20	I	C
ÁTOMO	3712	O	SER	I	76	29.926	-12.056	88.832	1.00	41.71	I	O
ÁTOMO	3713	CB	SER	I	76	28.846	-12.402	91.626	1.00	45.35	I	C
ÁTOMO	3714	OG	SER	I	76	30.126	-12.787	92.120	1.00	51.24	I	O
ÁTOMO	3715	N	ALA	I	77	31.254	-10.652	89.982	1.00	49.67	I	N
ÁTOMO	3716	CA	ALA	I	77	32.375	-10.766	89.048	1.00	54.47	I	C
ÁTOMO	3717	C	ALA	I	77	32.943	-12.175	89.034	1.00	57.42	I	C
ÁTOMO	3718	O	ALA	I	77	33.412	-12.653	88.003	1.00	59.50	I	O
ÁTOMO	3719	CB	ALA	I	77	33.478	-9.766	89.414	1.00	51.64	I	C
ÁTOMO	3720	N	GLY	I	78	32.895	-12.843	90.179	1.00	60.13	I	N
ÁTOMO	3721	CA	GLY	I	78	33.412	-14.198	90.239	1.00	62.69	I	C
ÁTOMO	3722	C	GLY	I	78	34.882	-14.206	89.849	1.00	63.55	I	C
ÁTOMO	3723	O	GLY	I	78	35.563	-13.090	90.291	1.00	63.76	I	O
ÁTOMO	3724	N	SER	I	81	39.947	-16.327	92.121	1.00	67.81	I	N
ÁTOMO	3725	CA	SER	I	81	41.293	-16.933	92.348	1.00	65.14	I	C
ÁTOMO	3726	C	SER	I	81	42.348	-16.541	91.309	1.00	61.18	I	C
ÁTOMO	3727	O	SER	I	81	43.501	-16.954	91.421	1.00	60.41	I	O
ÁTOMO	3728	CB	SER	I	81	41.172	-18.457	92.368	1.00	65.70	I	C
ÁTOMO	3729	OG	SER	I	81	40.423	-18.891	93.492	1.00	69.36	I	O
ÁTOMO	3730	N	SER	I	82	41.956	-15.751	90.310	1.00	56.70	I	N
ÁTOMO	3731	CA	SER	I	82	42.867	-15.344	89.249	1.00	51.54	I	C
ÁTOMO	3732	C	SER	I	82	43.685	-14.090	89.610	1.00	47.03	I	C

ÁTOMO	3733	O	SER	I	82	43.155	-12.987	89.727	1.00	44.40	I	O
ÁTOMO	3734	CB	SER	I	82	42.067	-15.117	87.966	1.00	52.88	I	C
ÁTOMO	3735	OG	SER	I	82	42.944	-14.947	86.868	1.00	62.13	I	O
ÁTOMO	3736	N	LEU	I	83	44.992	-14.262	89.782	1.00	40.85	I	N
ÁTOMO	3737	CA	LEU	I	83	45.839	-13.152	90.182	1.00	33.26	I	C
ÁTOMO	3738	C	LEU	I	83	45.835	-11.917	89.264	1.00	32.94	I	C
ÁTOMO	3739	O	LEU	I	83	45.828	-10.799	89.748	1.00	30.66	I	O
ÁTOMO	3740	CB	LEU	I	83	47.287	-13.614	90.310	1.00	29.35	I	C
ÁTOMO	3741	CG	LEU	I	83	48.279	-12.574	90.838	1.00	27.09	I	C
ÁTOMO	3742	CD1	LEU	I	83	47.939	-12.173	92.295	1.00	12.16	I	C
ÁTOMO	3743	CD2	LEU	I	83	49.691	-13.159	90.750	1.00	24.42	I	C
ÁTOMO	3744	N	HIS	I	84	45.872	-12.145	87.957	1.00	29.82	I	N
ÁTOMO	3745	CA	HIS	I	84	45.974	-11.040	86.983	1.00	29.54	I	C
ÁTOMO	3746	C	HIS	I	84	44.628	-10.553	86.425	1.00	29.73	I	C
ÁTOMO	3747	O	HIS	I	84	44.592	-9.730	85.525	1.00	25.19	I	O
ÁTOMO	3748	CB	HIS	I	84	46.850	-11.516	85.820	1.00	26.32	I	C
ÁTOMO	3749	CG	HIS	I	84	48.157	-12.110	86.250	1.00	28.45	I	C
ÁTOMO	3750	ND1	HIS	I	84	49.148	-11.364	86.849	1.00	29.88	I	N
ÁTOMO	3751	CD2	HIS	I	84	48.635	-13.377	86.169	1.00	24.74	I	C
ÁTOMO	3752	CE1	HIS	I	84	50.180	-12.144	87.123	1.00	30.46	I	C
ÁTOMO	3753	NE2	HIS	I	84	49.894	-13.372	86.721	1.00	21.40	I	N
ÁTOMO	3754	N	VAL	I	85	43.536	-11.067	86.978	1.00	32.07	I	N
ÁTOMO	3755	CA	VAL	I	85	42.202	-10.744	86.471	1.00	32.06	I	C
ÁTOMO	3756	C	VAL	I	85	41.928	-9.272	86.189	1.00	33.84	I	C
ÁTOMO	3757	O	VAL	I	85	41.269	-8.945	85.194	1.00	36.05	I	O
ÁTOMO	3758	CB	VAL	I	85	41.112	-11.325	87.405	1.00	33.38	I	C
ÁTOMO	3759	CG1	VAL	I	85	41.122	-10.639	88.753	1.00	27.19	I	C
ÁTOMO	3760	CG2	VAL	I	85	39.765	-11.211	86.751	1.00	37.69	I	C
ÁTOMO	3761	N	ARG	I	86	42.424	-8.378	87.022	1.00	32.54	I	N
ÁTOMO	3762	CA	ARG	I	86	42.181	-6.974	86.794	1.00	31.61	I	C
ÁTOMO	3763	C	ARG	I	86	43.401	-6.217	86.290	1.00	31.91	I	C
ÁTOMO	3764	O	ARG	I	86	43.435	-4.977	86.319	1.00	35.23	I	O
ÁTOMO	3765	CB	ARG	I	86	41.586	-6.355	88.074	1.00	28.40	I	C
ÁTOMO	3766	CG	ARG	I	86	40.089	-6.712	88.217	1.00	41.94	I	C
ÁTOMO	3767	CD	ARG	I	86	39.461	-6.267	89.534	1.00	46.77	I	C
ÁTOMO	3768	NE	ARG	I	86	39.546	-7.320	90.565	1.00	63.98	I	N
ÁTOMO	3769	CZ	ARG	I	86	38.731	-8.386	90.654	1.00	66.04	I	C
ÁTOMO	3770	NH1	ARG	I	86	37.746	-8.587	89.784	1.00	52.07	I	N
ÁTOMO	3771	NH2	ARG	I	86	38.896	-9.253	91.647	1.00	62.26	I	N
ÁTOMO	3772	N	ASP	I	87	44.409	-6.944	85.790	1.00	30.34	I	N
ÁTOMO	3773	CA	ASP	I	87	45.582	-6.265	85.271	1.00	32.40	I	C
ÁTOMO	3774	C	ASP	I	87	45.118	-5.630	83.964	1.00	31.30	I	C
ÁTOMO	3775	O	ASP	I	87	44.441	-6.299	83.192	1.00	30.02	I	O
ÁTOMO	3776	CB	ASP	I	87	46.690	-7.243	84.879	1.00	34.02	I	C
ÁTOMO	3777	CG	ASP	I	87	47.463	-7.838	86.086	1.00	38.19	I	C
ÁTOMO	3778	OD1	ASP	I	87	47.145	-7.582	87.260	1.00	32.90	I	O
ÁTOMO	3779	OD2	ASP	I	87	48.406	-8.554	85.741	1.00	32.57	I	O
ÁTOMO	3780	N	THR	I	88	45.516	-4.392	83.687	1.00	30.86	I	N
ÁTOMO	3781	CA	THR	I	88	45.063	-3.748	82.443	1.00	31.20	I	C
ÁTOMO	3782	C	THR	I	88	46.075	-3.950	81.321	1.00	31.74	I	C
ÁTOMO	3783	O	THR	I	88	46.942	-3.091	81.058	1.00	33.75	I	O
ÁTOMO	3784	CB	THR	I	88	44.822	-2.258	82.703	1.00	29.81	I	C
ÁTOMO	3785	OG1	THR	I	88	46.027	-1.671	83.179	1.00	36.54	I	O
ÁTOMO	3786	CG2	THR	I	88	43.767	-2.090	83.782	1.00	24.42	I	C
ÁTOMO	3787	N	ALA	I	89	45.968	-5.085	80.639	1.00	31.60	I	N
ÁTOMO	3788	CA	ALA	I	89	46.955	-5.362	79.608	1.00	30.00	I	C
ÁTOMO	3789	C	ALA	I	89	46.448	-5.308	78.192	1.00	29.68	I	C
ÁTOMO	3790	O	ALA	I	89	47.205	-5.591	77.282	1.00	32.56	I	O
ÁTOMO	3791	CB	ALA	I	89	47.564	-6.708	79.859	1.00	35.66	I	C

ÁTOMO	3792	N	ILE	I	90	45.203	-4.897	77.975	1.00	26.67	I N
ÁTOMO	3793	CA	ILE	I	90	44.675	-4.930	76.618	1.00	21.52	I C
ÁTOMO	3794	C	ILE	I	90	44.399	-3.493	76.191	1.00	20.02	I C
ÁTOMO	3795	O	ILE	I	90	43.796	-2.739	76.949	1.00	18.80	I O
ÁTOMO	3796	CB	ILE	I	90	43.309	-5.690	76.590	1.00	22.56	I C
ÁTOMO	3797	CG1	ILE	I	90	43.439	-7.060	77.251	1.00	27.82	I C
ÁTOMO	3798	CG2	ILE	I	90	42.780	-5.835	75.178	1.00	20.25	I C
ÁTOMO	3799	CD1	ILE	I	90	44.554	-7.915	76.695	1.00	23.97	I C
ÁTOMO	3800	N	GLU	I	91	44.802	-3.115	74.992	1.00	22.48	I N
ÁTOMO	3801	CA	GLU	I	91	44.501	-1.768	74.513	1.00	25.02	I C
ÁTOMO	3802	C	GLU	I	91	42.983	-1.709	74.241	1.00	25.25	I C
ÁTOMO	3803	O	GLU	I	91	42.369	-2.675	73.785	1.00	24.40	I O
ÁTOMO	3804	CB	GLU	I	91	45.255	-1.470	73.201	1.00	26.65	I C
ÁTOMO	3805	CG	GLU	I	91	46.761	-1.457	73.383	1.00	43.52	I C
ÁTOMO	3806	CD	GLU	I	91	47.501	-1.542	72.054	1.00	66.85	I C
ÁTOMO	3807	OE1	GLU	I	91	48.725	-1.840	72.074	1.00	71.43	I O
ÁTOMO	3808	OE2	GLU	I	91	46.853	-1.312	70.997	1.00	76.33	I O
ÁTOMO	3809	N	VAL	I	92	42.374	-0.559	74.508	1.00	20.39	I N
ÁTOMO	3810	CA	VAL	I	92	40.939	-0.475	74.300	1.00	22.52	I C
ÁTOMO	3811	C	VAL	I	92	40.523	-0.874	72.888	1.00	24.09	I C
ÁTOMO	3812	O	VAL	I	92	39.571	-1.603	72.701	1.00	22.60	I O
ÁTOMO	3813	CB	VAL	I	92	40.428	0.925	74.574	1.00	24.93	I C
ÁTOMO	3814	CG1	VAL	I	92	38.923	0.968	74.198	1.00	23.93	I C
ÁTOMO	3815	CG2	VAL	I	92	40.622	1.268	76.076	1.00	29.40	I C
ÁTOMO	3816	N	ALA	I	93	41.241	-0.393	71.889	1.00	23.14	I N
ÁTOMO	3817	CA	ALA	I	93	40.901	-0.747	70.521	1.00	20.90	I C
ÁTOMO	3818	C	ALA	I	93	40.853	-2.249	70.320	1.00	21.97	I C
ÁTOMO	3819	O	ALA	I	93	39.949	-2.781	69.631	1.00	22.74	I O
ÁTOMO	3820	CB	ALA	I	93	41.903	-0.116	69.561	1.00	17.96	I C
ÁTOMO	3821	N	ALA	I	94	41.832	-2.953	70.883	1.00	20.31	I N
ÁTOMO	3822	CA	ALA	I	94	41.883	-4.420	70.728	1.00	22.41	I C
ÁTOMO	3823	C	ALA	I	94	40.764	-5.113	71.484	1.00	21.47	I C
ÁTOMO	3824	O	ALA	I	94	40.140	-6.098	70.998	1.00	21.82	I O
ÁTOMO	3825	CB	ALA	I	94	43.276	-4.974	71.187	1.00	23.67	I C
ÁTOMO	3826	N	PHE	I	95	40.483	-4.584	72.672	1.00	19.72	I N
ÁTOMO	3827	CA	PHE	I	95	39.426	-5.132	73.479	1.00	19.20	I C
ÁTOMO	3828	C	PHE	I	95	38.072	-5.000	72.750	1.00	20.71	I C
ÁTOMO	3829	O	PHE	I	95	37.284	-5.941	72.715	1.00	18.83	I O
ÁTOMO	3830	CB	PHE	I	95	39.352	-4.371	74.805	1.00	17.19	I C
ÁTOMO	3831	CG	PHE	I	95	38.253	-4.836	75.695	1.00	18.73	I C
ÁTOMO	3832	CD1	PHE	I	95	38.509	-5.739	76.707	1.00	19.09	I C
ÁTOMO	3833	CD2	PHE	I	95	36.939	-4.365	75.517	1.00	28.45	I C
ÁTOMO	3834	CE1	PHE	I	95	37.475	-6.189	77.554	1.00	24.24	I C
ÁTOMO	3835	CE2	PHE	I	95	35.914	-4.798	76.346	1.00	28.64	I C
ÁTOMO	3836	CZ	PHE	I	95	36.172	-5.706	77.360	1.00	28.20	I C
ÁTOMO	3837	N	VAL	I	96	37.814	-3.817	72.186	1.00	21.23	I N
ÁTOMO	3838	CA	VAL	I	96	36.534	-3.564	71.499	1.00	22.02	I C
ÁTOMO	3839	C	VAL	I	96	36.412	-4.391	70.191	1.00	22.65	I C
ÁTOMO	3840	O	VAL	I	96	35.358	-4.954	69.862	1.00	22.48	I O
ÁTOMO	3841	CB	VAL	I	96	36.354	-2.048	71.208	1.00	22.55	I C
ÁTOMO	3842	CG1	VAL	I	96	35.086	-1.833	70.313	1.00	18.24	I C
ÁTOMO	3843	CG2	VAL	I	96	36.164	-1.327	72.526	1.00	23.04	I C
ÁTOMO	3844	N	ALA	I	97	37.506	-4.495	69.452	1.00	25.04	I N
ÁTOMO	3845	CA	ALA	I	97	37.467	-5.306	68.235	1.00	26.44	I C
ÁTOMO	3846	C	ALA	I	97	37.132	-6.762	68.567	1.00	22.96	I C
ÁTOMO	3847	O	ALA	I	97	36.353	-7.388	67.886	1.00	24.45	I O
ÁTOMO	3848	CB	ALA	I	97	38.807	-5.233	67.515	1.00	31.87	I C
ÁTOMO	3849	N	ASP	I	98	37.709	-7.303	69.627	1.00	23.71	I N

ÁTOMO	3850	CA	ASP	I	98	37.425	-8.696	70.050	1.00	23.00	I C
ÁTOMO	3851	C	ASP	I	98	35.979	-8.812	70.558	1.00	24.40	I C
ÁTOMO	3852	O	ASP	I	98	35.283	-9.795	70.294	1.00	24.30	I O
ÁTOMO	3853	CB	ASP	I	98	38.382	-9.092	71.180	1.00	19.69	I C
ÁTOMO	3854	CG	ASP	I	98	38.094	-10.465	71.749	1.00	23.36	I C
ÁTOMO	3855	OD1	ASP	I	98	38.602	-11.503	71.271	1.00	32.56	I O
ÁTOMO	3856	OD2	ASP	I	98	37.296	-10.496	72.778	1.00	25.79	I O
ÁTOMO	3857	N	LEU	I	99	35.540	-7.819	71.338	1.00	25.64	I N
ÁTOMO	3858	CA	LEU	I	99	34.158	-7.857	71.849	1.00	23.64	I C
ÁTOMO	3859	C	LEU	I	99	33.254	-7.921	70.611	1.00	26.34	I C
ÁTOMO	3860	O	LEU	I	99	32.302	-8.681	70.575	1.00	21.05	I O
ÁTOMO	3861	CB	LEU	I	99	33.832	-6.556	72.655	1.00	26.66	I C
ÁTOMO	3862	CG	LEU	I	99	32.389	-6.402	73.163	1.00	20.95	I C
ÁTOMO	3863	CD1	LEU	I	99	31.978	-7.628	73.981	1.00	13.88	I C
ÁTOMO	3864	CD2	LEU	I	99	32.325	-5.070	73.966	1.00	24.83	I C
ÁTOMO	3865	N	LEU	I	100	33.545	-7.065	69.628	1.00	25.95	I N
ÁTOMO	3866	CA	LEU	I	100	32.711	-6.993	68.426	1.00	28.26	I C
ÁTOMO	3867	C	LEU	I	100	32.627	-8.366	67.732	1.00	29.60	I C
ÁTOMO	3868	O	LEU	I	100	31.560	-8.810	67.305	1.00	29.23	I O
ÁTOMO	3869	CB	LEU	I	100	33.273	-5.928	67.452	1.00	30.11	I C
ÁTOMO	3870	CG	LEU	I	100	32.650	-5.886	66.044	1.00	27.15	I C
ÁTOMO	3871	CD1	LEU	I	100	31.135	-5.727	66.148	1.00	31.05	I C
ÁTOMO	3872	CD2	LEU	I	100	33.281	-4.740	65.254	1.00	26.52	I C
ÁTOMO	3873	N	LEU	I	101	33.745	-9.063	67.675	1.00	29.37	I N
ÁTOMO	3874	CA	LEU	I	101	33.759	-10.388	67.038	1.00	29.29	I C
ÁTOMO	3875	C	LEU	I	101	32.817	-11.370	67.738	1.00	27.17	I C
ÁTOMO	3876	O	LEU	I	101	32.059	-12.118	67.095	1.00	28.05	I O
ÁTOMO	3877	CB	LEU	I	101	35.207	-10.893	67.069	1.00	28.28	I C
ÁTOMO	3878	CG	LEU	I	101	35.600	-12.250	66.508	1.00	32.38	I C
ÁTOMO	3879	CD1	LEU	I	101	37.152	-12.263	66.541	1.00	49.76	I C
ÁTOMO	3880	CD2	LEU	I	101	35.018	-13.410	67.313	1.00	35.45	I C
ÁTOMO	3881	N	HIS	I	102	32.870	-11.373	69.071	1.00	26.61	I N
ÁTOMO	3882	CA	HIS	I	102	32.034	-12.251	69.877	1.00	27.47	I C
ÁTOMO	3883	C	HIS	I	102	30.583	-11.798	69.756	1.00	29.67	I C
ÁTOMO	3884	O	HIS	I	102	29.681	-12.633	69.610	1.00	31.47	I O
ÁTOMO	3885	CB	HIS	I	102	32.512	-12.240	71.343	1.00	24.82	I C
ÁTOMO	3886	CG	HIS	I	102	33.836	-12.910	71.517	1.00	31.90	I C
ÁTOMO	3887	ND1	HIS	I	102	34.018	-14.251	71.250	1.00	35.56	I N
ÁTOMO	3888	CD2	HIS	I	102	35.057	-12.422	71.843	1.00	30.43	I C
ÁTOMO	3889	CE1	HIS	I	102	35.291	-14.560	71.396	1.00	33.85	I C
ÁTOMO	3890	NE2	HIS	I	102	35.943	-13.472	71.756	1.00	40.02	I N
ÁTOMO	3891	N	LEU	I	103	30.337	-10.488	69.801	1.00	25.34	I N
ÁTOMO	3891	N	LEU	I	103	30.337	-10.488	69.801	1.00	25.34	I N
ÁTOMO	3892	CA	LEU	I	103	28.934	-10.065	69.640	1.00	23.49	I C
ÁTOMO	3893	C	LEU	I	103	28.346	-10.471	68.259	1.00	25.13	I C
ÁTOMO	3894	O	LEU	I	103	27.187	-10.905	68.172	1.00	25.31	I O
ÁTOMO	3895	CB	LEU	I	103	28.767	-8.550	69.831	1.00	21.97	I C
ÁTOMO	3896	CG	LEU	I	103	29.020	-8.116	71.296	1.00	26.35	I C
ÁTOMO	3897	CD1	LEU	I	103	28.850	-6.663	71.451	1.00	19.33	I C
ÁTOMO	3898	CD2	LEU	I	103	28.028	-8.793	72.252	1.00	16.98	I C
ÁTOMO	3899	N	LYS	I	104	29.139	-10.363	67.198	1.00	24.74	I N
ÁTOMO	3900	CA	LYS	I	104	28.632	-10.737	65.869	1.00	26.53	I C
ÁTOMO	3901	C	LYS	I	104	28.329	-12.220	65.811	1.00	27.50	I C
ÁTOMO	3902	O	LYS	I	104	27.366	-12.627	65.208	1.00	28.46	I O
ÁTOMO	3903	CB	LYS	I	104	29.625	-10.357	64.783	1.00	22.88	I C
ÁTOMO	3904	CG	LYS	I	104	29.587	-8.914	64.413	1.00	31.89	I C
ÁTOMO	3905	CD	LYS	I	104	30.631	-8.717	63.344	1.00	32.33	I C

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ÁTOMO	3906	CE	LYS	I	104	30.925	-7.279	63.115	1.00	59.68	I	C
ÁTOMO	3907	NZ	LYS	I	104	32.076	-7.164	62.142	1.00	68.07	I	N
ÁTOMO	3908	N	ALA	I	105	29.133	-13.023	66.479	1.00	29.46	I	N
ÁTOMO	3909	CA	ALA	I	105	28.882	-14.450	66.534	1.00	34.23	I	C
ÁTOMO	3910	C	ALA	I	105	27.563	-14.703	67.275	1.00	37.21	I	C
ÁTOMO	3911	O	ALA	I	105	26.663	-15.418	66.770	1.00	39.76	I	O
ÁTOMO	3912	CB	ALA	I	105	30.064	-15.163	67.232	1.00	32.11	I	C
ÁTOMO	3913	N	LEU	I	106	27.411	-14.122	68.470	1.00	39.89	I	N
ÁTOMO	3914	CA	LEU	I	106	26.165	-14.309	69.230	1.00	38.09	I	C
ÁTOMO	3915	C	LEU	I	106	24.938	-13.890	68.408	1.00	37.88	I	C
ÁTOMO	3916	O	LEU	I	106	23.913	-14.550	68.431	1.00	33.66	I	O
ÁTOMO	3917	CB	LEU	I	106	26.194	-13.477	70.530	1.00	36.52	I	C
ÁTOMO	3918	CG	LEU	I	106	24.863	-13.456	71.276	1.00	42.06	I	C
ÁTOMO	3919	CD1	LEU	I	106	24.583	-14.853	71.860	1.00	38.67	I	C
ÁTOMO	3920	CD2	LEU	I	106	24.917	-12.412	72.412	1.00	45.46	I	C
ÁTOMO	3921	N	PHE	I	107	25.064	-12.790	67.683	1.00	38.60	I	N
ÁTOMO	3922	CA	PHE	I	107	23.973	-12.279	66.867	1.00	40.37	I	C
ÁTOMO	3923	C	PHE	I	107	23.618	-13.276	65.764	1.00	43.78	I	C
ÁTOMO	3924	O	PHE	I	107	22.436	-13.549	65.529	1.00	44.25	I	O
ÁTOMO	3925	CB	PHE	I	107	24.365	-10.956	66.236	1.00	37.22	I	C
ÁTOMO	3926	CG	PHE	I	107	23.271	-10.311	65.429	1.00	36.27	I	C
ÁTOMO	3927	CD1	PHE	I	107	22.198	-9.699	66.048	1.00	46.75	I	C
ÁTOMO	3928	CD2	PHE	I	107	23.322	-10.317	64.052	1.00	36.68	I	C
ÁTOMO	3929	CE1	PHE	I	107	21.186	-9.098	65.296	1.00	35.59	I	C
ÁTOMO	3930	CE2	PHE	I	107	22.320	-9.717	63.299	1.00	47.17	I	C
ÁTOMO	3931	CZ	PHE	I	107	21.253	-9.109	63.923	1.00	39.35	I	C
ÁTOMO	3932	N	ALA	I	108	24.638	-13.786	65.075	1.00	46.11	I	N
ÁTOMO	3933	CA	ALA	I	108	24.403	-14.758	63.993	1.00	52.09	I	C
ÁTOMO	3934	C	ALA	I	108	23.766	-16.034	64.566	1.00	55.44	I	C
ÁTOMO	3935	O	ALA	I	108	22.779	-16.540	64.031	1.00	56.71	I	O
ÁTOMO	3936	CB	ALA	I	108	25.730	-15.076	63.280	1.00	51.31	I	C
ÁTOMO	3937	N	ALA	I	109	24.327	-16.543	65.659	1.00	58.75	I	N
ÁTOMO	3938	CA	ALA	I	109	23.816	-17.732	66.338	1.00	63.42	I	C
ÁTOMO	3939	C	ALA	I	109	22.418	-17.549	66.929	1.00	66.89	I	C
ÁTOMO	3940	O	ALA	I	109	21.743	-16.521	66.672	1.00	69.76	I	O
ÁTOMO	3941	CB	ALA	I	109	24.791	-18.097	67.470	1.00	63.21	I	C
ÁTOMO	3942	OXT	ALA	I	109	22.003	-18.464	67.674	1.00	70.12	I	O
TER	3943		ALA	I	109							
ÁTOMO	3944	O4	OAC	S	1	18.217	22.918	90.161	1.00	51.17	S	O
ÁTOMO	3945	C2	OAC	S	1	17.505	21.950	89.542	1.00	51.08	S	C
ÁTOMO	3946	O3	OAC	S	1	16.384	21.569	89.864	1.00	56.88	S	O
ÁTOMO	3947	CI	OAC	S	1	18.305	21.429	88.360	1.00	58.69	S	C
TER	3948		OAC	S	1							
ÁTOMO	3949	ZN	ZN	Z	1	26.522	-6.968	101.166	1.00	26.39	Z	ZN
ÁTOMO	3950	ZN	ZN	Z	2	49.447	-9.432	87.331	1.00	25.80	Z	ZN
ÁTOMO	3951	ZN	ZN	Z	3	20.593	0.777	63.988	1.00	77.99	Z	ZN
TER	3952		ZN	Z	3							
ÁTOMO	3953	O	HOH	W	1	28.273	11.562	96.929	1.00	8.42	W	O
ÁTOMO	3954	O	HOH	W	3	23.494	-3.183	91.025	1.00	12.22	W	O
ÁTOMO	3955	O	HOH	W	5	30.637	16.714	92.029	1.00	4.14	W	O
ÁTOMO	3956	O	HOH	W	6	13.096	6.849	100.854	1.00	17.39	W	O
ÁTOMO	3957	O	HOH	W	7	-8.093	23.904	105.322	1.00	11.23	W	O
ÁTOMO	3958	O	HOH	W	8	18.329	15.295	86.054	1.00	13.20	W	O
ÁTOMO	3959	O	HOH	W	9	11.643	17.561	91.629	1.00	19.27	W	O
ÁTOMO	3960	O	HOH	W	10	24.508	31.519	109.138	1.00	13.78	W	O

ATOMO	3961	O	HOH W	11	23.563	9.514	84.581	1.00	11.36	W	O
ATOMO	3962	O	HOH W	12	14.310	0.426	97.254	1.00	21.71	W	O
ATOMO	3963	O	HOH W	13	38.621	-9.471	76.511	1.00	7.65	W	O
ATOMO	3964	O	HOH W	14	28.271	-6.451	86.834	1.00	19.05	W	O
ATOMO	3965	O	HOH W	16	3.235	26.147	105.955	1.00	24.84	W	O
ATOMO	3966	O	HOH W	17	16.160	10.823	106.546	1.00	33.75	W	O
ATOMO	3967	O	HOH W	18	27.918	32.988	106.240	1.00	17.97	W	O
ATOMO	3968	O	HOH W	19	12.758	29.187	98.874	1.00	14.92	W	O
ATOMO	3969	O	HOH W	20	25.445	20.063	84.133	1.00	21.98	W	O
ATOMO	3970	O	HOH W	21	17.622	32.548	94.823	1.00	13.51	W	O
ATOMO	3971	O	HOH W	22	28.770	22.300	95.542	1.00	20.26	W	O
ATOMO	3972	O	HOH W	23	20.037	1.543	80.170	1.00	20.36	W	O
ATOMO	3973	O	HOH W	24	25.817	0.831	84.674	1.00	25.39	W	O
ATOMO	3974	O	HOH W	25	30.387	-7.369	88.168	1.00	30.75	W	O
ATOMO	3975	O	HOH W	26	30.611	21.516	90.986	1.00	24.22	W	O
ATOMO	3976	O	HOH W	27	16.026	30.411	92.826	1.00	29.13	W	O
ATOMO	3977	O	HOH W	28	39.586	-2.015	82.847	1.00	20.63	W	O
ATOMO	3978	O	HOH W	29	22.165	-7.013	84.963	1.00	21.19	W	O
ATOMO	3979	O	HOH W	30	21.834	-1.471	72.582	1.00	22.31	W	O
ATOMO	3980	O	HOH W	31	14.563	2.175	99.373	1.00	24.90	W	O
ATOMO	3981	O	HOH W	32	3.923	30.530	100.919	1.00	21.71	W	O
ATOMO	3982	O	HOH W	33	-4.724	35.239	102.749	1.00	21.70	W	O
ATOMO	3983	O	HOH W	34	17.795	2.775	103.123	1.00	25.57	w	O
ATOMO	3984	O	HOH W	35	18.316	34.220	103.279	1.00	17.83	W	O
ATOMO	3985	O	HOH W	36	21.588	-1.766	75.413	1.00	15.19	W	O
ATOMO	3986	O	HOH W	37	4.529	27.870	100.348	1.00	23.18	W	O
ATOMO	3987	O	HOH W	38	4.257	28.013	97.680	1.00	34.26	W	O
ATOMO	3988	O	HOH W	39	35.051	-2.423	87.326	1.00	28.36	W	O
ATOMO	3989	O	HOH W	40	20.594	-3.706	99.423	1.00	26.79	W	O
ATOMO	3990	O	HOH W	41	41.265	0.306	82.711	1.00	28.82	W	O
ATOMO	3991	O	HOH W	42	21.119	35.325	107.301	1.00	15.65	W	O
ATOMO	3992	O	HOH W	43	35.412	-7.469	83.691	1.00	23.60	W	O
ATOMO	3993	O	HOH W	44	19.036	13.571	83.635	1.00	34.03	W	O
ATOMO	3994	O	HOH W	45	23.461	35.887	100.291	1.00	26.02	W	O
ATOMO	3995	O	HOH W	46	23.701	-4.144	105.686	1.00	31.69	W	O
ATOMO	3996	O	HOH W	47	12.582	4.601	70.291	1.00	32.84	W	O
ATOMO	3997	O	HOH W	48	32.825	7.152	92.066	1.00	30.03	W	O
ATOMO	3998	O	HOH W	50	16.651	4.316	105.552	1.00	17.39	W	O
ATOMO	3999	O	HOH W	51	9.812	25.145	115.275	1.00	28.34	W	O
ATOMO	4000	O	HOH W	52	40.139	-11.529	69.044	1.00	21.03	w	O
ATOMO	4001	O	HOH W	53	27.250	33.402	98.412	1.00	26.19	W	O
ATOMO	4002	O	HOH W	54	-6.410	20.233	102.747	1.00	32.23	W	O
ATOMO	4003	O	HOH W	55	25.539	22.652	105.834	1.00	40.60	W	O
ATOMO	4004	O	HOH W	56	-3.623	39.874	107.173	1.00	43.07	W	O
ATOMO	4005	O	HOH W	57	30.894	4.390	71.988	1.00	32.39	W	O
ATOMO	4006	O	HOH W	58	22.406	3.311	79.796	1.00	19.82	W	O
ATOMO	4007	O	HOH W	59	34.129	6.169	87.418	1.00	33.67	W	O
ATOMO	4008	O	HOH W	60	-3.318	35.590	100.547	1.00	28.53	W	O
ATOMO	4009	O	HOH W	61	23.032	-6.709	102.637	1.00	35.35	W	O
ATOMO	4010	O	HOH W	62	-10.710	38.525	105.096	1.00	21.21	W	O
ATOMO	4011	O	HOH W	63	17.542	8.543	106.106	1.00	28.80	W	O
ATOMO	4012	O	HOH W	64	2.489	33.089	97.944	1.00	22.39	W	O
ATOMO	4013	O	HOH W	65	30.074	17.145	98.763	1.00	17.05	W	O
ATOMO	4014	O	HOH W	66	-16.374	28.372	102.556	1.00	24.41	W	O
ATOMO	4015	O	HOH W	67	9.528	23.065	103.276	1.00	39.55	W	O
ATOMO	4016	O	HOH W	68	23.360	-5.629	91.918	1.00	29.13	W	O
ATOMO	4017	O	HOH W	69	10.550	28.053	110.107	1.00	18.71	W	O
ATOMO	4018	O	HOH W	70	-2.937	25.921	114.654	1.00	30.39	W	O

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ÁTOMO	4019	O	HOH W	71	-16.268	35.216	117.114	1.00	36.27	W	O
ÁTOMO	4020	O	HOH W	72	23.240	-7.692	94.601	1.00	41.50	W	O
ÁTOMO	4021	O	HOH W	73	28.558	29.902	99.941	1.00	37.38	W	O
ÁTOMO	4022	O	HOH W	74	-15.000	6.861	100.111	1.00	27.16	W	O
ÁTOMO	4023	O	HOH W	75	5.317	37.793	102.522	1.00	30.41	W	O
ÁTOMO	4024	O	HOH W	76	19.168	23.700	110.137	1.00	28.91	W	O
ÁTOMO	4025	O	HOH W	77	30.386	-10.910	84.608	1.00	32.94	W	O
ÁTOMO	4026	O	HOH W	78	36.143	7.975	79.406	1.00	29.70	W	O
ÁTOMO	4027	O	HOH W	79	22.776	9.248	82.183	1.00	20.17	W	O
ÁTOMO	4028	O	HOH W	81	37.057	-8.282	74.493	1.00	20.27	W	O
ÁTOMO	4029	O	HOH W	82	28.228	29.062	103.673	1.00	28.10	W	O
ÁTOMO	4030	O	HOH W	83	-0.541	19.565	105.264	1.00	24.14	W	O
ÁTOMO	4031	O	HOH W	84	22.692	3.297	107.514	1.00	26.48	W	O
ÁTOMO	4032	O	HOH W	85	6.319	9.905	75.975	1.00	33.33	W	O
ÁTOMO	4033	O	HOH W	86	-20.077	32.736	123.087	1.00	26.22	W	O
ÁTOMO	4034	O	HOH W	87	2.894	-6.811	78.653	1.00	27.94	W	O
ÁTOMO	4035	O	HOH W	88	16.333	13.154	86.247	1.00	19.04	W	O
ÁTOMO	4036	O	HOH W	89	-18.401	26.785	101.005	1.00	20.65	W	O
ÁTOMO	4037	O	HOH W	90	14.178	4.497	102.132	1.00	14.84	W	O
ÁTOMO	4038	O	HOH W	91	37.756	12.396	75.146	1.00	53.57	W	O
ÁTOMO	4039	O	HOH W	92	5.996	41.146	107.575	1.00	31.31	W	O
ÁTOMO	4040	O	HOH W	93	33.958	9.979	93.064	1.00	21.64	W	O
ÁTOMO	4041	O	HOH W	94	29.435	24.180	93.845	1.00	31.70	W	O
ÁTOMO	4042	O	HOH W	95	-20.084	29.808	120.008	1.00	37.49	W	O
ÁTOMO	4043	O	HOH W	96	11.886	24.347	94.949	1.00	31.14	W	O
ÁTOMO	4044	O	HOH W	97	20.130	-7.765	79.021	1.00	24.27	W	O
ÁTOMO	4045	O	HOH W	98	13.677	13.199	85.492	1.00	41.34	W	O
ÁTOMO	4046	O	HOH W	100	9.428	16.898	98.102	1.00	28.31	W	O
ÁTOMO	4047	O	HOH W	101	32.099	-12.636	81.025	1.00	21.44	W	O
ÁTOMO	4048	O	HOH W	102	-14.681	35.792	88.683	1.00	43.48	W	O
ÁTOMO	4049	O	HOH W	103	-7.331	22.775	102.908	1.00	21.34	W	O
ÁTOMO	4050	O	HOH W	104	30.867	-3.411	103.450	1.00	17.02	W	O
ÁTOMO	4051	O	HOH W	105	30.952	7.074	82.558	1.00	30.32	W	O
ÁTOMO	4052	O	HOH W	106	0.055	-8.254	81.647	1.00	44.32	W	O
ÁTOMO	4053	O	HOH W	107	24.927	13.293	82.288	1.00	33.73	W	O
ÁTOMO	4054	O	HOH W	108	-23.807	32.474	120.697	1.00	34.73	W	O
ÁTOMO	4055	O	HOH W	109	9.549	-11.066	85.205	1.00	32.37	W	O
ÁTOMO	4056	O	HOH W	110	31.311	-4.410	95.935	1.00	36.67	W	O
ÁTOMO	4057	O	HOH W	111	31.367	-8.798	85.899	1.00	24.73	W	O
ÁTOMO	4058	O	HOH W	112	-2.685	32.829	97.162	1.00	14.26	W	O
ÁTOMO	4059	O	HOH W	113	31.508	24.004	97.423	1.00	32.37	W	O
ÁTOMO	4060	O	HOH W	114	14.725	-7.846	97.853	1.00	25.19	W	O
ÁTOMO	4061	O	HOH W	115	-3.331	27.584	87.465	1.00	36.07	W	O
ÁTOMO	4062	O	HOH W	116	9.759	12.912	73.461	1.00	17.17	W	O
ÁTOMO	4063	O	HOH W	117	-9.716	4.459	90.108	1.00	32.05	W	O
ÁTOMO	4064	O	HOH W	118	20.800	2.961	70.582	1.00	30.32	W	O
ÁTOMO	4065	O	HOH W	119	18.183	35.258	107.203	1.00	25.90	W	O
ÁTOMO	4066	O	HOH W	120	14.131	35.183	110.395	1.00	31.30	W	O
ÁTOMO	4067	O	HOH W	122	13.443	31.066	92.909	1.00	28.30	W	O
ÁTOMO	4068	O	HOH W	123	5.710	25.002	114.636	1.00	50.47	w	O
ÁTOMO	4069	O	HOH W	124	-9.776	26.728	117.248	1.00	38.41	W	O
ÁTOMO	4070	O	HOH W	125	-15.147	2.711	93.850	1.00	28.99	W	O
ÁTOMO	4071	O	HOH W	126	22.123	32.188	96.064	1.00	28.66	w	O
ÁTOMO	4072	O	HOH W	127	18.922	7.388	72.762	1.00	31.98	W	O
ÁTOMO	4073	O	HOH W	128	26.078	-10.105	80.952	1.00	33.21	w	O
ÁTOMO	4074	O	HOH W	129	33.351	8.652	88.931	1.00	34.31	W	O
ÁTOMO	4075	O	HOH W	130	33.136	15.710	88.777	1.00	51.57	W	O
ÁTOMO	4076	O	HOH W	131	2.007	37.692	103.678	1.00	36.95	W	O

ATOMO	4077	O	HOH W	132	33.678	5.637	104.529	1.00	28.36	W	O
ATOMO	4078	O	HOH W	133	7.880	-11.049	90.515	1.00	41.06	W	O
ATOMO	4079	O	HOH W	134	-11.066	28.063	82.867	1.00	45.18	W	O
ATOMO	4080	O	HOH W	135	25.936	-6.768	94.146	1.00	32.98	W	O
ATOMO	4081	O	HOH W	136	43.370	1.669	71.874	1.00	32.04	W	O
ATOMO	4082	O	HOH W	137	1.019	6.008	79.468	1.00	40.19	W	O
ATOMO	4083	O	HOH W	138	34.715	13.498	101.014	1.00	53.03	W	O
ATOMO	4084	O	HOH W	139	22.191	11.429	81.361	1.00	41.29	W	O
ATOMO	4085	O	HOH W	140	24.467	21.102	82.091	1.00	34.83	W	O
ATOMO	4086	O	HOH W	141	15.139	37.655	103.495	1.00	28.25	W	O
ATOMO	4087	O	HOH W	142	-11.890	15.447	104.306	1.00	26.61	W	O
ATOMO	4088	O	HOH W	143	32.110	-6.441	90.476	1.00	34.73	W	O
ATOMO	4089	O	HOH W	144	21.865	31.313	108.472	1.00	35.52	w	O
ATOMO	4090	O	HOH W	145	19.868	20.917	110.695	1.00	48.68	W	O
ATOMO	4091	O	HOH W	146	4.529	35.844	118.732	1.00	38.17	W	O
ATOMO	4092	O	HOH W	147	31.420	13.080	84.897	1.00	35.77	W	O
ATOMO	4093	O	HOH W	148	5.862	33.041	95.343	1.00	42.81	W	O
ATOMO	4094	O	HOH W	149	36.227	-7.429	65.214	1.00	52.25	w	O
ATOMO	4095	O	HOH W	150	12.533	-3.257	98.974	1.00	30.04	W	O
ATOMO	4096	O	HOH W	151	41.936	5.196	81.078	1.00	48.30	w	O
ATOMO	4097	O	HOH W	152	5.365	0.173	100.870	1.00	38.17	W	O
ATOMO	4098	O	HOH W	153	18.974	10.598	76.035	1.00	27.27	W	O
ATOMO	4099	O	HOH W	154	-11.459	23.657	81.891	1.00	44.66	W	O
ATOMO	4100	O	HOH W	155	-11.643	37.549	102.792	1.00	29.06	W	O
ATOMO	4101	O	HOH W	156	21.611	33.384	110.725	1.00	43.54	W	O
ATOMO	4102	O	HOH W	157	5.082	13.359	91.364	1.00	34.56	W	O
ATOMO	4103	O	HOH W	158	-4.222	32.340	117.504	1.00	52.91	W	O
ATOMO	4104	O	HOH W	159	-4.833	0.443	84.678	1.00	31.52	W	O
ATOMO	4105	O	HOH W	160	-2.712	24.390	91.588	1.00	42.37	W	O
ATOMO	4106	O	HOH W	161	23.968	10.013	108.083	1.00	52.17	W	O
ATOMO	4107	O	HOH W	162	39.266	7.831	70.972	1.00	30.66	W	0
ATOMO	4108	O	HOH W	163	-6.156	19.204	110.800	1.00	49.86	W	0
ATOMO	4109	O	HOH W	164	19.098	17.380	84.173	1.00	36.03	W	O
ATOMO	4110	O	HOH W	165	13.399	33.954	93.836	1.00	36.17	W	O
ATOMO	4111	O	HOH W	166	-31.448	25.540	114.441	1.00	37.50	W	O
ATOMO	4112	O	HOH W	167	13.302	14.583	106.224	1.00	21.88	W	O
ATOMO	4113	O	HOH W	169	1.752	26.748	97.241	1.00	37.67	W	O
ATOMO	4114	O	HOH W	170	27.718	0.693	62.087	1.00	46.32	W	O
ATOMO	4115	O	HOH W	171	28.912	-5.883	98.061	1.00	45.53	W	0
ATOMO	4116	O	HOH W	172	12.144	-6.132	99.269	1.00	28.03	W	O
ATOMO	4117	O	HOH W	173	9.713	14.070	99.156	1.00	36.36	W	O
ATOMO	4118	O	HOH W	174	44.241	3.007	80.980	1.00	55.52	W	O
ATOMO	4119	O	HOH W	175	-2.145	9.708	89.227	1.00	30.25	W	O
ATOMO	4120	O	HOH W	176	21.259	13.911	103.297	1.00	46.50	W	O
ATOMO	4121	O	HOH W	177	28.628	2.356	108.048	1.00	35.93	W	O
ATOMO	4122	O	HOH W	178	-3.113	20.410	91.180	1.00	49.91	W	O
ATOMO	4123	O	HOH W	179	9.943	40.130	105.661	1.00	49.34	W	O
ATOMO	4124	O	HOH W	180	-14.721	37.561	104.779	1.00	37.09	W	O
ATOMO	4125	O	HOH W	181	0.350	-13.390	93.145	1.00	42.85	W	O
ATOMO	4126	O	HOH W	182	-16.751	30.840	125.808	1.00	43.38	W	O
ATOMO	4127	O	HOH W	183	5.022	10.944	94.912	1.00	36.63	W	O
ATOMO	4128	O	HOH W	184	47.344	-3.172	85.812	1.00	29.25	W	O
ATOMO	4129	O	HOH W	185	-12.479	0.246	96.627	1.00	44.43	w	O
ATOMO	4130	O	HOH W	186	11.422	0.781	69.608	1.00	50.67	w	O
ATOMO	4131	O	HOH W	187	1.340	12.706	88.912	1.00	17.04	W	O
ATOMO	4132	O	HOH W	188	22.147	27.729	88.824	1.00	45.97	W	O
ATOMO	4133	O	HOH W	189	9.004	12.970	81.421	1.00	51.36	W	O
ATOMO	4134	O	HOH W	191	30.121	9.526	83.001	1.00	30.35	W	O
ATOMO	4135	O	HOH W	192	-13.167	21.122	108.317	1.00	36.08	W	O
ATOMO	4136	O	HOH W	193	-17.245	22.145	114.082	1.00	45.19	W	O

ÁTOMO	4137	O	HOH W	194	41.158	-7.584	68.969	1.00	35.80	W	O
ÁTOMO	4138	O	HOH W	195	15.255	-3.823	74.196	1.00	33.67	W	O
ÁTOMO	4139	O	HOH W	196	4.303	32.713	92.780	1.00	35.43	w	O
ÁTOMO	4140	O	HOH W	197	31.497	18.300	97.022	1.00	26.66	W	O
ÁTOMO	4141	O	HOH W	198	7.975	21.318	103.826	1.00	43.04	W	O
ÁTOMO	4142	O	HOH W	199	8.986	-7.658	77.984	1.00	41.83	W	O
ÁTOMO	4143	O	HOH W	200	-18.535	14.030	99.271	1.00	42.15	W	O
ÁTOMO	4144	O	HOH W	201	35.091	-0.808	99.802	1.00	46.06	W	O
ÁTOMO	4145	O	HOH W	203	-2.184	13.964	100.706	1.00	74.49	W	O
ÁTOMO	4146	O	HOH W	204	34.686	-12.618	82.251	1.00	34.52	W	O
ÁTOMO	4147	O	HOH W	205	10.210	18.638	100.418	1.00	37.42	W	O
ÁTOMO	4148	O	HOH W	206	-8.704	10.500	91.279	1.00	42.78	W	O
ÁTOMO	4149	O	HOH W	207	3.790	-6.540	82.547	1.00	23.61	W	O
ÁTOMO	4150	O	HOH W	208	25.141	20.223	107.446	1.00	50.13	W	O
ÁTOMO	4151	O	HOH W	209	21.473	-6.251	99.480	1.00	33.69	W	O
ÁTOMO	4152	O	HOH W	212	-11.925	21.358	85.228	1.00	37.61	W	O
ÁTOMO	4153	O	HOH W	214	36.678	-0.414	95.891	1.00	30.67	W	O
ÁTOMO	4154	O	HOH W	215	-5.799	7.996	97.828	1.00	30.32	W	O
ÁTOMO	4155	O	HOH W	216	-20.478	20.138	103.173	1.00	39.11	W	O
ÁTOMO	4156	O	HOH W	217	12.213	14.368	87.152	1.00	31.57	W	O
ÁTOMO	4157	O	HOH W	218	-22.625	18.132	100.101	1.00	46.35	W	O
ÁTOMO	4158	O	HOH W	219	-19.563	28.480	88.113	1.00	51.22	W	O
ÁTOMO	4159	O	HOH W	220	20.900	30.072	89.269	1.00	63.55	W	O
ÁTOMO	4160	O	HOH W	221	-1.490	9.805	81.944	1.00	39.00	W	O
ÁTOMO	4161	O	HOH W	222	21.948	-11.094	73.960	1.00	62.58	W	O
ÁTOMO	4162	O	HOH W	223	16.250	35.597	101.623	1.00	29.57	W	O
ÁTOMO	4163	O	HOH W	224	28.972	27.235	92.671	1.00	41.21	W	O
ÁTOMO	4164	O	HOH W	225	45.423	2.082	74.169	1.00	39.22	W	O
ÁTOMO	4165	O	HOH W	226	45.259	0.612	70.233	1.00	52.06	W	O
ÁTOMO	4166	O	HOH W	227	-4.834	-10.203	92.007	1.00	28.91	W	O
ÁTOMO	4167	O	HOH W	228	-26.786	21.041	113.504	1.00	63.51	W	O
ÁTOMO	4168	O	HOH W	229	4.385	-4.060	99.169	1.00	44.90	W	O
ÁTOMO	4169	O	HOH W	230	29.725	14.057	106.512	1.00	47.35	W	O
ÁTOMO	4170	O	HOH W	231	8.274	16.343	88.023	1.00	37.92	W	O
ÁTOMO	4171	O	HOH W	232	26.302	27.216	105.852	1.00	44.83	W	O
ÁTOMO	4172	O	HOH W	233	-17.533	40.068	113.830	1.00	35.69	W	O
ÁTOMO	4173	O	HOH W	234	-18.605	26.063	84.723	1.00	56.46	W	O
ÁTOMO	4174	O	HOH W	235	33.922	15.190	94.802	1.00	56.82	W	O
ÁTOMO	4175	O	HOH W	236	11.403	-9.873	79.359	1.00	46.16	W	O
ÁTOMO	4176	O	HOH W	237	34.709	6.908	95.381	1.00	51.22	W	O
ÁTOMO	4177	O	HOH W	238	9.586	13.857	85.777	1.00	32.27	W	O
ÁTOMO	4178	O	HOH W	239	-20.363	18.864	100.658	1.00	66.22	W	O
ÁTOMO	4179	O	HOH W	240	19.167	-7.670	71.595	1.00	38.96	W	O
ÁTOMO	4180	O	HOH W	242	-4.347	7.089	83.943	1.00	34.28	W	O
ÁTOMO	4181	O	HOH W	244	13.637	39.059	110.482	1.00	35.74	W	O
ÁTOMO	4182	O	HOH W	245	6.635	11.429	105.918	1.00	98.33	W	O
ÁTOMO	4183	O	HOH W	246	-11.717	37.604	118.307	1.00	60.71	W	O
ÁTOMO	4184	O	HOH W	247	36.600	1.072	98.205	1.00	37.52	W	O
ÁTOMO	4185	O	HOH W	248	1.815	2.355	101.069	1.00	30.58	W	O
ÁTOMO	4186	O	HOH W	249	31.117	20.193	101.536	1.00	42.13	W	O
ÁTOMO	4187	O	HOH W	250	6.143	32.066	113.958	1.00	34.13	W	O
ÁTOMO	4188	O	HOH W	251	12.546	26.526	89.169	1.00	75.55	W	O
ÁTOMO	4189	O	HOH W	252	15.820	-5.443	71.698	1.00	64.76	W	O
ÁTOMO	4190	O	HOH W	253	-19.453	13.362	89.607	1.00	45.55	W	O
ÁTOMO	4191	O	HOH W	254	-17.164	32.080	100.217	1.00	39.90	W	O
ÁTOMO	4192	O	HOH W	255	37.030	-9.701	83.335	1.00	43.29	W	O
ÁTOMO	4193	O	HOH W	256	34.324	-6.400	88.335	1.00	50.06	W	O
ÁTOMO	4194	O	HOH W	257	49.009	-9.543	83.531	1.00	42.11	W	O
ÁTOMO	4195	O	HOH W	258	9.878	15.022	101.645	1.00	48.63	W	O

ÁTOMO	4196	O	HOH W	259	26.271	16.951	106.835	1.00	28.76	W	O
ÁTOMO	4197	O	HOH W	260	21.231	10.692	77.782	1.00	52.78	W	O
ÁTOMO	4198	O	HOH W	261	8.597	31.178	114.621	1.00	29.98	W	O
ÁTOMO	4199	O	HOH W	263	28.771	11.642	105.175	1.00	49.49	W	O
ÁTOMO	4200	O	HOH W	264	0.559	33.356	86.616	1.00	43.50	W	O
ÁTOMO	4201	O	HOH W	265	-2.459	19.283	97.138	1.00	40.59	W	O
ÁTOMO	4202	O	HOH W	266	33.611	10.760	95.480	1.00	31.51	W	O
ÁTOMO	4203	O	HOH W	268	-13.163	9.376	82.701	1.00	91.44	W	O
ÁTOMO	4204	O	HOH W	269	-10.588	-3.736	92.548	1.00	48.91	W	O
ÁTOMO	4205	O	HOH W	270	30.517	-3.934	99.364	1.00	46.59	W	O
ÁTOMO	4206	O	HOH W	271	-15.610	30.916	83.905	1.00	72.20	W	O
ÁTOMO	4207	O	HOH W	272	8.482	-2.678	100.994	1.00	40.04	W	O
ÁTOMO	4208	O	HOH W	273	-14.819	39.625	106.340	1.00	32.66	W	O
ÁTOMO	4209	O	HOH W	274	-15.862	27.341	124.046	1.00	49.70	W	O
ÁTOMO	4210	O	HOH W	275	0.355	7.737	78.018	1.00	39.51	w	O
ÁTOMO	4211	O	HOH W	276	11.649	6.543	73.332	1.00	62.29	W	O
ÁTOMO	4212	O	HOH W	277	13.896	1.911	70.069	1.00	36.22	W	O
ÁTOMO	4213	O	HOH W	279	11.226	9.285	70.225	1.00	37.33	W	O
ÁTOMO	4214	O	HOH W	280	17.596	11.506	73.709	1.00	37.13	W	O
ÁTOMO	4215	O	HOH W	281	22.601	8.046	77.458	1.00	84.20	W	O
ÁTOMO	4216	O	HOH W	282	22.007	2.832	75.959	1.00	60.94	W	O
ÁTOMO	4217	O	HOH W	283	14.332	0.684	101.417	1.00	26.51	W	O
ÁTOMO	4218	O	HOH W	284	17.488	14.803	74.520	1.00	50.25	W	O
ÁTOMO	4219	O	HOH W	285	11.672	12.725	82.121	1.00	31.27	W	O
ÁTOMO	4220	O	HOH W	286	13.338	15.638	79.654	1.00	49.99	W	O
ÁTOMO	4221	O	HOH W	287	15.476	15.666	77.915	1.00	39.70	W	O
ÁTOMO	4222	O	HOH W	288	-19.019	18.128	91.748	1.00	57.76	W	O
ÁTOMO	4223	O	HOH W	289	-18.913	20.525	92.776	1.00	52.52	W	O
ÁTOMO	4224	O	HOH W	290	-21.754	17.779	92.013	1.00	70.60	W	O
ÁTOMO	4225	O	HOH W	291	-7.681	20.732	86.926	1.00	30.75	W	O
ÁTOMO	4226	O	HOH W	292	-18.672	16.770	99.341	1.00	72.88	W	O
ÁTOMO	4227	O	HOH W	293	41.053	-10.007	75.389	1.00	40.19	W	O
ÁTOMO	4228	O	HOH W	294	15.967	34.561	95.189	1.00	32.39	W	O
ÁTOMO	4229	O	HOH W	295	3.242	22.750	99.080	1.00	42.03	W	O
ÁTOMO	4230	O	HOH W	296	42.034	1.021	85.260	1.00	31.00	W	O
ÁTOMO	4231	O	HOH W	297	34.100	-8.318	85.997	1.00	20.43	W	O
ÁTOMO	4232	O	HOH W	298	26.478	33.532	95.995	1.00	51.52	W	O
ÁTOMO	4233	O	HOH W	299	34.395	6.694	89.928	1.00	53.02	W	O
ÁTOMO	4234	O	HOH W	300	-0.985	37.065	99.982	1.00	39.51	W	O
ÁTOMO	4235	O	HOH W	301	-0.252	34.259	98.319	1.00	40.18	W	O
ÁTOMO	4236	O	HOH W	302	1.043	37.976	101.110	1.00	50.67	W	O
ÁTOMO	4237	O	HOH W	303	13.169	27.347	107.852	1.00	46.98	W	O
ÁTOMO	4238	O	HOH W	304	2.617	-8.808	82.550	1.00	34.55	W	O
ÁTOMO	4239	O	HOH W	306	-24.119	34.693	121.849	1.00	38.49	W	O
ÁTOMO	4240	O	HOH W	307	-21.110	33.926	125.264	1.00	35.91	W	O
ÁTOMO	4241	O	HOH W	308	-22.717	35.450	124.405	1.00	40.22	W	O
ÁTOMO	4242	O	HOH W	309	14.431	-7.080	100.358	1.00	40.89	W	O
ÁTOMO	4243	O	HOH W	310	-1.633	26.170	89.620	1.00	32.95	W	O
ÁTOMO	4244	O	HOH W	311	-0.715	23.415	92.259	1.00	48.52	W	O
ÁTOMO	4245	O	HOH W	312	15.583	37.247	111.051	1.00	102.38	W	O
ÁTOMO	4246	O	HOH W	313	49.127	-4.716	84.592	1.00	31.17	W	O
ÁTOMO	4247	O	HOH W	316	4.543	25.776	97.442	1.00	20.30	W	O
ÁTOMO	4248	O	HOH W	317	13.219	-2.231	96.766	1.00	26.75	W	O
ÁTOMO	4249	O	HOH W	318	-1.027	12.136	89.956	1.00	30.29	W	O
ÁTOMO	4250	O	HOH W	319	24.455	-0.869	84.238	1.00	47.96	W	O
ÁTOMO	4251	O	HOH W	321	7.387	26.214	95.885	1.00	43.12	W	O
ÁTOMO	4252	O	HOH W	323	-10.121	37.815	100.499	1.00	26.17	W	O
ÁTOMO	4253	O	HOH W	324	44.204	-8.495	89.166	1.00	41.06	W	O
ÁTOMO	4254	O	HOH W	325	16.219	0.595	103.250	1.00	24.87	W	O
ÁTOMO	4255	O	HOH W	326	16.724	6.735	108.041	1.00	33.97	W	O
ÁTOMO	4256	O	HOH W	327	-5.658	41.985	114.043	1.00	41.88	W	O
ÁTOMO	4257	O	HOH W	328	30.517	7.926	72.820	1.00	24.86	W	O
ÁTOMO	4258	O	HOH W	329	-4.229	13.443	105.886	1.00	42.46	W	O
ÁTOMO	4259	O	HOH W	330	9.856	-2.127	98.647	1.00	29.78	W	O
ÁTOMO	4260	O	HOH W	331	32.200	13.062	101.692	1.00	46.72	W	O

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ÁTOMO	4261	O	HOH W 332	11.618	16.977	87.587	1.00	38.22	W	O
ÁTOMO	4262	O	HOH W 334	13.863	35.533	100.193	1.00	38.69	W	O
ÁTOMO	4263	O	HOH W 335	3.202	20.353	103.614	1.00	41.76	W	O
ÁTOMO	4264	O	HOH W 336	-0.265	25.481	112.882	1.00	45.85	W	O
ÁTOMO	4265	O	HOH W 337	33.088	17.503	92.709	1.00	40.43	W	O
ÁTOMO	4266	O	HOH W 338	-10.753	19.811	115.192	1.00	40.52	W	O
ÁTOMO	4267	O	HOH W 339	5.702	24.463	117.434	1.00	32.03	W	O
ÁTOMO	4268	O	HOH W 340	36.083	5.104	86.455	1.00	49.47	W	O
ÁTOMO	4269	O	HOH W 341	45.308	-14.674	86.663	1.00	43.84	W	O
ÁTOMO	4270	O	HOH W 342	-3.013	2.927	80.584	1.00	48.18	W	O
ÁTOMO	4271	O	HOH W 343	-8.584	2.810	102.723	1.00	45.47	W	O
ÁTOMO	4272	O	HOH W 344	14.270	31.214	111.267	1.00	53.23	W	O
ÁTOMO	4273	O	HOH W 345	5.303	5.466	73.316	1.00	35.97	W	O
ÁTOMO	4274	O	HOH W 346	5.884	14.859	94.569	1.00	34.36	W	O
ÁTOMO	4275	O	HOH W 347	13.766	-10.804	94.639	1.00	37.55	W	O
ÁTOMO	4276	O	HOH W 348	28.817	-6.638	95.408	1.00	46.05	W	O
ÁTOMO	4277	O	HOH W 349	-16.201	4.012	101.225	1.00	55.36	W	O
ÁTOMO	4278	O	HOH W 350	12.538	12.934	104.399	1.00	50.37	W	O
ÁTOMO	4279	O	HOH W 351	-11.930	40.337	106.636	1.00	34.71	W	O
ÁTOMO	4280	O	HOH W 352	14.848	22.833	108.104	1.00	32.58	W	O
ÁTOMO	4281	O	HOH W 353	4.331	11.520	83.240	1.00	65.30	W	O
ÁTOMO	4282	O	HOH W 354	-30.188	27.123	112.476	1.00	54.95	W	O
ÁTOMO	4283	O	HOH W 355	0.831	37.120	115.463	1.00	45.14	W	O
ÁTOMO	4284	O	HOH W 356	39.804	-9.143	67.597	1.00	38.07	W	O
ÁTOMO	4285	O	HOH W 357	-5.193	41.092	118.296	1.00	49.38	W	O
ÁTOMO	4286	O	HOH W 358	-4.318	15.660	94.910	1.00	64.77	W	O
ÁTOMO	4287	O	HOH W 359	2.404	30.953	94.996	1.00	43.81	W	O
ÁTOMO	4288	O	HOH W 360	5.633	-10.209	96.938	1.00	33.82	W	O
ÁTOMO	4289	O	HOH W 361	4.540	-6.167	100.513	1.00	39.66	W	O
ÁTOMO	4290	O	HOH W 362	-19.660	12.268	100.884	1.00	27.40	W	O
ÁTOMO	4291	O	HOH W 363	46.225	-3.464	88.101	1.00	43.37	W	O
ÁTOMO	4292	O	HOH W 364	23.301	28.533	108.032	1.00	49.28	W	O
ÁTOMO	4293	O	HOH W 365	17.099	11.410	108.574	1.00	47.12	W	O
ÁTOMO	4294	O	HOH W 366	26.600	2.351	110.176	1.00	37.38	W	O
ÁTOMO	4295	O	HOH W 367	-22.520	39.595	116.261	1.00	49.47	W	O
ÁTOMO	4296	O	HOH W 368	0.313	25.144	94.624	1.00	40.92	W	O
ÁTOMO	4297	O	HOH W 369	20.613	-10.182	77.986	1.00	37.72	W	O
ÁTOMO	4298	O	HOH W 370	22.771	6.260	79.455	1.00	47.23	W	O
ÁTOMO	4299	O	HOH W 371	14.20.9	-9.494	101.679	1.00	50.86	W	O
ÁTOMO	4300	O	HOH W 372	32.180	-13.182	64.680	1.00	31.90	W	O
ÁTOMO	4301	O	HOH W 373	-15.578	22.302	119.158	1.00	67.22	W	O
ÁTOMO	4302	O	HOH W 374	-5.806	33.729	119.651	1.00	78.83	W	O
ÁTOMO	4303	O	HOH W 375	5.261	41.524	122.294	1.00	64.79	W	O
ÁTOMO	4304	O	HOH W 376	-26.827	27.798	95.626	1.00	52.39	W	O
ÁTOMO	4305	O	HOH W 377	-0.392	20.708	96.954	1.00	47.09	W	O
ÁTOMO	4306	O	HOH W 378	38.359	3.116	87.840	1.00	51.46	W	O
ÁTOMO	4307	O	HOH W 379	-8.697	-6.590	90.186	1.00	37.82	W	O
ÁTOMO	4308	O	HOH W 380	34.329	-8.438	63.764	1.00	43.15	W	O
ÁTOMO	4309	O	HOH W 381	25.046	4.206	109.068	1.00	36.85	W	O
ÁTOMO	4310	O	HOH W 382	-12.307	4.812	90.954	1.00	54.83	W	O
ÁTOMO	4311	O	HOH W 383	22.346	0.999	109.244	1.00	55.83	W	O
ÁTOMO	4312	O	HOH W 384	20.145	33.493	94.808	1.00	33.85	W	O
ÁTOMO	4313	O	HOH W 385	17.103	17.604	111.486	1.00	58.32	W	O
ÁTOMO	4314	O	HOH W 386	-19.799	34.573	91.860	1.00	30.28	W	O
ÁTOMO	4315	O	HOH W 387	14.665	36.499	114.334	1.00	75.56	W	O
ÁTOMO	4316	O	HOH W 388	7.042	35.670	94.968	1.00	48.07	W	O
ÁTOMO	4317	O	HOH W 389	32.245	-16.178	70.702	1.00	49.01	W	O
ÁTOMO	4318	O	HOH W 390	10.283	21.058	100.027	1.00	84.17	W	O
ÁTOMO	4319	O	HOH W 391	34.895	7.447	103.148	1.00	40.35	W	O
ÁTOMO	4320	O	HOH W 392	-25.110	16.204	100.371	1.00	50.31	W	O
ÁTOMO	4321	O	HOH W 393	-25.389	34.708	117.495	1.00	48.66	W	O
ÁTOMO	4322	O	HOH W 394	11.890	21.970	101.820	1.00	68.28	W	O
ÁTOMO	4323	O	HOH W 395	45.837	-5.824	89.349	1.00	28.55	W	O
ÁTOMO	4324	O	HOH W 396	-8.379	40.188	104.608	1.00	50.71	W	O
ÁTOMO	4325	O	HOH W 397	-2.215	0.600	81.682	1.00	55.91	W	O
ÁTOMO	4326	O	HOH W 398	21.869	-8.133	89.554	1.00	70.38	W	O

ÁTOMO	4327	O	HOH W 399	24.028	8.821	110.407	1.00	40.67	W O
ÁTOMO	4328	O	HOH W 400	4.868	30.432	91.498	1.00	63.30	W O
ÁTOMO	4329	O	HOH W 401	-13.446	0.549	94.109	1.00	38.55	W O
ÁTOMO	4330	O	HOH W 402	-14.032	30.272	124.462	1.00	67.33	W O
ÁTOMO	4331	O	HOH W 403	-8.252	25.376	115.719	1.00	72.04	W O
ÁTOMO	4332	O	HOH W 404	-19.618	7.134	97.108	1.00	69.74	W O
ÁTOMO	4333	O	HOH W 405	43.024	-2.573	87.596	1.00	47.06	W O
ÁTOMO	4334	O	HOH W 406	-8.280	39.609	100.109	1.00	45.22	W O
ÁTOMO	4335	O	HOH W 407	13.386	-2.161	101.138	1.00	40.32	W O
ÁTOMO	4336	O	HOH W 408	1.781	-3.496	73.915	1.00	35.10	W O
ÁTOMO	4337	O	HOH W 409	-19.493	33.560	127.412	1.00	52.12	W O
ÁTOMO	4338	O	HOH W 410	-12.357	32.930	84.450	1.00	55.63	W O
ÁTOMO	4339	O	HOH W 411	-16.396	41.453	106.252	1.00	67.78	W O
ÁTOMO	4340	O	HOH W 412	9.259	22.383	107.628	1.00	62.67	W O
ÁTOMO	4341	O	HOH W 413	26.452	10.638	108.233	1.00	55.75	W O
ÁTOMO	4342	O	HOH W 414	3.629	26.004	108.637	1.00	32.70	W O
ÁTOMO	4343	O	HOH W 415	15.226	13.844	73.002	1.00	48.60	W O
ÁTOMO	4344	O	HOH W 416	1.142	27.132	93.054	1.00	41.48	w O
ÁTOMO	4345	O	HOH W 417	-8.715	22.235	116.597	1.00	46.49	W O
ÁTOMO	4346	O	HOH W 418	14.671	-10.428	90.692	1.00	44.76	W O
ÁTOMO	4347	O	HOH W 419	41.314	7.425	77.188	1.00	58.46	W O
ÁTOMO	4348	O	HOH W 420	8.057	17.800	101.961	1.00	51.89	W O
ÁTOMO	4349	O	HOH W 421	29.708	7.490	70.081	1.00	36.19	W O
ÁTOMO	4350	O	HOH W 422	18.102	4.689	108.132	1.00	65.88	W O
ÁTOMO	4351	O	HOH W 423	20.158	13.014	111.569	1.00	56.69	W O
ÁTOMO	4352	O	HOH W 424	18.739	14.999	112.142	1.00	76.64	W O
ÁTOMO	4353	O	HOH W 425	24.783	24.390	107.699	1.00	68.92	W O
ÁTOMO	4354	O	HOH W 426	33.410	-5.505	95.203	1.00	42.38	W O
ÁTOMO	4355	O	HOH W 427	35.004	-3.766	95.192	1.00	35.89	W O
ÁTOMO	4356	O	HOH W 428	13.651	18.898	90.820	1.00	44.94	W O
ÁTOMO	4357	O	HOH W 429	31.902	10.936	83.768	1.00	50.77	W O
ÁTOMO	4358	O	HOH W 430	20.413	14.829	81.652	1.00	86.25	W O
ÁTOMO	4359	O	HOH W 431	32.924	22.614	95.004	1.00	57.23	W O
ÁTOMO	4360	O	HOH W 432	17.143	27.068	92.217	1.00	41.94	W O
ÁTOMO	4361	O	HOH W 433	17.696	29.224	90.849	1.00	44.20	W O
ÁTOMO	4362	O	HOH W 434	6.235	13.909	97.039	1.00	36.25	W O
ÁTOMO	4363	O	HOH W 435	15.368	1.745	105.621	1.00	65.45	W O
ÁTOMO	4364	O	HOH W 436	12.352	2.448	102.309	1.00	56.90	w O
ÁTOMO	4365	O	HOH W 437	17.216	-1.654	103.171	1.00	64.25	W O
ÁTOMO	4366	O	HOH W 438	-24.467	21.964	97.052	1.00	59.17	W O
ÁTOMO	4367	O	HOH W 439	6.899	37.197	100.238	1.00	53.34	W O
ÁTOMO	4368	O	HOH W 440	-5.836	25.471	114.752	1.00	49.14	W O
ÁTOMO	4369	O	HOH W 441	-17.656	23.630	116.338	1.00	60.48	W O
ÁTOMO	4370	O	HOH W 442	-21.781	21.666	113.537	1.00	30.82	W O
ÁTOMO	4371	O	HOH W 443	39.860	6.346	67.021	1.00	32.01	W O
ÁTOMO	4372	O	HOH W 444	42.143	8.359	69.500	1.00	39.71	W O
ÁTOMO	4373	O	HOH W 445	-8.339	-3.324	88.589	1.00	48.59	W O
ÁTOMO	4374	O	HOH W 446	-5.439	-2.506	84.631	1.00	49.07	W O
ÁTOMO	4375	O	HOH W 447	10.114	9.300	105.299	1.00	55.06	w O
ÁTOMO	4376	O	HOH W 448	16.239	-12.467	79.695	1.00	48.81	W O
ÁTOMO	4377	O	HOH W 449	12.931	14.962	82.732	1.00	55.97	W O
ÁTOMO	4378	O	HOH W 450	15.033	16.025	83.698	1.00	55.49	W O
ÁTOMO	4379	O	HOH W 451	10.617	15.905	83.861	1.00	54.71	W O
ÁTOMO	4380	O	HOH W 452	-5.587	14.189	96.637	1.00	17.19	W O
ÁTOMO	4381	O	HOH W 454	-2.694	14.148	88.813	1.00	39.38	W O
ÁTOMO	4382	O	HOH W 455	3.241	25.419	113.472	1.00	35.59	W O
ÁTOMO	4383	O	HOH W 456	6.666	28.248	94.111	1.00	31.20	W O
ÁTOMO	4384	O	HOH W 457	4.912	26.581	118.595	1.00	33.12	W O

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ÁTOMO 4385 O    HOH W 458     13.177  32.164 114.127 1.00 57.36 W    O
ÁTOMO 4386 'O   HOH W 459     25.786  35.921  98.725 1.00 58.99 W    O
ÁTOMO 4387 O    HOH W 460     22.635   4.638  74.051 1.00 46.06 W    O
ÁTOMO 4388 O    HOH W 461     17.322  37.394 105.719 1.00 31.09 W    O
ÁTOMO 4389 O    HOH W 462     -7.224  20.703 114.851 1.00 39.30 W    O
ÁTOMO 4390 O    HOH W 463     35.611  11.671  98.382 1.00 46.52 W    O
ÁTOMO 4391 O    HOH W 464     29.883 -13.953  62.902 1.00 57.02 W    O
ÁTOMO 4392 O    HOH W 465     31.809  -8.822  91.814 1.00 48.95 W    O
ÁTOMO 4393 O    HOH W 466     -4.260   7.670  89.713 1.00 47.18 W    O
ÁTOMO 4394 O    HOH W 467     10.396  24.915  91.432 1.00 40.35 W    O
ÁTOMO 4395 O    HOH W 468     25.263  11.071  82.716 1.00 54.15 W    O
ÁTOMO 4396 O    HOH W 469     38.248   5.442  99.845 1.00 42.81 W    O
ÁTOMO 4397 O    HOH W 470     36.347   9.341 100.618 1.00 34.65 W    O
ÁTOMO 4398 O    HOH W 471    -16.914  41.482 111.141 1.00 42.00 W    O
ÁTOMO 4399 O    HOH W 472     -9.184  24.264  81.849 1.00 47.30 W    O
ÁTOMO 4400 O    HOH W 473     40.726   1.808  66.833 1.00 43.72 w    O
ÁTOMO 4401 O    HOH W 474     31.808 -18.642  70.728 1.00 37.59 W    O
ÁTOMO 4402 O    HOH W 475     16.188  22.858 110.296 1.00 49.77 W    O
ÁTOMO 4403 O    HOH W 476      3.509   2.536 103.295 1.00 42.84 W    O
ÁTOMO 4404 O    HOH W 477     11.289  41.122 108.943 1.00 45.98 W    O
ÁTOMO 4405 O    HOH W 478     36.903  -5.044  64.038 1.00 55.21 W    O
ÁTOMO 4406 O    HOH W 479     -6.947   8.034  91.049 1.00 52.73 W    O
ÁTOMO 4407 O    HOH W 480     29.751 -15.588  72.186 1.00 39.77 W    O
ÁTOMO 4408 O    HOH W 481    -19.537  40.486 107.195 1.00 44.19 W    O
ÁTOMO 4409 O    HOH W 482     13.213  -5.095  67.720 1.00 60.90 w    O
ÁTOMO 4410 O    HOH W 483     49.568  -7.870  76.168 1.00 56.88 w    O
ÁTOMO 4411 O    HOH W 484     20.138  10.494 110.659 1.00 51.35 W    O
ÁTOMO 4412 O    HOH W 485     23.477  20.576 109.910 1.00 40.59 W    O
ÁTOMO 4411 O    HOH W 486     17.274  23.443  92.256 1.00 20.56 W    O
ÁTOMO 4414 O    HOH W 487     -3.839  23.924 116.158 1.00 53.03 W    O
ÁTOMO 4415 O    HOH W 488     -9.415  30.760 123.636 1.00 52.62 W    O
ÁTOMO 4416 O    HOH W 489     -1.387   9.782  78.997 1.00 53.83 W    O
ÁTOMO 4417 O    HOH W 490      9.922  -7.536  74.819 1.00 56.15 W    O
ÁTOMO 4418 O    HOH W 491    -19.282  13.510 103.374 1.00 42.49 W    O
ÁTOMO 4419 O    HOH W 492      5.004  29.828  93.747 1.00 45.34 W    O
ÁTOMO 4420 O    HOH W 493     17.415  -8.223  91.913 1.00 37.18 W    O
ÁTOMO 4421 O    HOH W 494    -12.983  20.330 105.539 1.00 54.57 W    O
ÁTOMO 4422 O    HOH W 495     -7.159  22.883  83.768 1.00 46.62 W    O
ÁTOMO 4423 O    HOH W 496     37.991  -8.468  95.150 1.00 50.24 W    O
ÁTOMO 4424 O    HOH W 497      6.698  22.515 106.540 1.00 31.67 W    O
ÁTOMO 4425 O    HOH W 498      0.537  27.673  90.158 1.00 49.73 W    O
ÁTOMO 4426 O    HOH W 499     40.928 -10.554  82.991 1.00 67.78 W    O
ÁTOMO 4427 O    HOH W 500     -9.156  36.949  84.009 1.00 72.95 W    O
ÁTOMO 4428 O    HOH W 501    -33.297  21.816 110.516 1.00 49.38 W    O
ÁTOMO 4429 O    HOH W 502     14.744 -12.296  83.500 1.00 61.03 W    O
ÁTOMO 4430 O    HOH W 503     -0.797  13.710  92.437 1.00 67.43 W    O
ÁTOMO 4431 O    HOH W 504     -4.021  -6.785  82.556 1.00 66.42 W    O
ÁTOMO 4432 O    HOH W 505     39.144  -0.596  89.054 1.00 60.51 W    O
ÁTOMO 4433 O    HOH W 506     -4.755  -6.160  85.441 1.00 49.25 W    O
ÁTOMO 4434 O    HOH W 507     28.668 -12.917  86.013 1.00 72.20 W    O
ÁTOMO 4435 O    HOH W 508     26.122 -13.358  85.255 1.00 54.49 W    O
ÁTOMO 4436 O    HOH W 509      1.611  -7.783 103.500 1.00 63.21 W    O
ÁTOMO 4437 O    HOH W 510    -16.935  38.862  97.751 1.00 38.07 W    O
TER     4438    HOH W 510
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[a] Los residuos de aminoácidos de cadenas ligera (L) y pesada (H) se numeran de acuerdo con el sistema de numeración Chothia mostrado en las Tablas 6 y 7, respectivamente (Al-Lazikani *et al.*, *Tour. Mol. Biol.* 273:927-948, 1997). Los aminoácidos de IL-13 (I) se numeran como se muestra en SEQ ID NO:4 (Fig. 2B).

[b] Las columnas se marcan de acuerdo con el Formato de Banco de Datos de Proteínas, Versión 2.2.

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Tabla 12

Coordenadas de estructura de IL-13/mAb13.2 Gab/IL-13Ra1[a, b] humana

	#	Nombre	Res.	Cadena	Res #	X	Y	Z	occ	B	SegID	
ÁTOMO	1	CB	PRO	I	6	27.016	30.544	-8.876	1.00	78.94	I	C
ÁTOMO	2	CG	PRO	I	6	25.927	30.356	-7.827	1.00	79.11	I	C
ÁTOMO	3	C	PRO	I	6	28.494	28.571	-9.333	1.00	77.04	I	C
ÁTOMO	4	O	PRO	I	6	28.955	27.658	-10.011	1.00	78.75	I	O
ÁTOMO	5	N	PRO	I	6	26.037	28.388	-9.357	1.00	79.03	I	N
ÁTOMO	6	CD	PRO	I	6	25.355	28.902	-8.177	1.00	78.57	I	C
ÁTOMO	7	CA	PRO	I	6	27.169	29.250	-9.667	1.00	77.81	I	C
ÁTOMO	8	N	SER	I	7	29.158	29.102	-8.292	1.00	73.92	I	N
ÁTOMO	9	CA	SER	I	7	30.314	28.399	-7.754	1.00	70.46	I	C
ÁTOMO	10	CB	SER	I	7	31.594	28.866	-8.450	1.00	71.68	I	C
ÁTOMO	11	OG	SER	I	7	32.433	27.732	-8.694	1.00	70.98	I	O
ÁTOMO	12	C	SER	I	7	30.438	28.627	-6.254	1.00	68.57	I	C
ÁTOMO	13	O	SER	I	7	29.807	29.505	-5.678	1.00	68.82	I	O
ÁTOMO	14	N	THR	I	8	31.238	27.760	-5.628	1.00	64.85	I	N
ÁTOMO	15	CA	THR	I	8	31.542	27.924	-4.220	1.00	61.35	I	C
ÁTOMO	16	CB	THR	I	8	31.055	26.659	-3.518	1.00	60.21	I	C
ÁTOMO	17	OG1	THR	I	8	31.602	25.526	-4.191	1.00	60.16	I	O
ÁTOMO	18	CG2	THR	I	8	29.525	26.585	-3.602	1.00	60.47	I	C
ÁTOMO	19	C	THR	I	8	33.049	28.098	-4.021	1.00	59.39	I	C
ÁTOMO	20	O	THR	I	8	33.866	27.692	-4.837	1.00	60.36	I	O
ÁTOMO	21	N	ALA	I	9	33.455	28.703	-2.891	1.00	56.29	I	N
ÁTOMO	22	CA	ALA	I	9	34.886	28.844	-2.652	1.00	53.24	I	C
ÁTOMO	23	CB	ALA	I	9	35.099	29.365	-1.233	1.00	53.72	I	C
ÁTOMO	24	C	ALA	I	9	35.601	27.499	-2.836	1.00	50.08	I	C
ÁTOMO	25	O	ALA	I	9	36.740	27.420	-3.303	1.00	48.77	I	O
ÁTOMO	26	N	LEU	I	10	34.896	26.425	-2.407	1.00	47.48	I	N
ÁTOMO	27	CA	LEU	I	10	35.458	25.082	-2.467	1.00	47.12	I	C
ÁTOMO	28	CB	LEU	I	10	34.532	24.133	-1.702	1.00	47.12	I	C
ÁTOMO	29	CG	LEU	I	10	35.161	22.751	-1.483	1.00	47.82	I	C
ÁTOMO	30	CD1	LEU	I	10	36.663	22.837	-1.178	1.00	46.75	I	C
ÁTOMO	31	CD2	LEU	I	10	34.533	21.987	-0.316	1.00	47.41	I	C
ÁTOMO	32	C	LEU	I	10	35.641	24.597	-3.910	1.00	45.94	I	C
ÁTOMO	33	O	LEU	I	10	36.703	24.136	-4.306	1.00	44.31	I	O
ÁTOMO	34	N	ARG	I	11	34.544	24.643	-4.689	1.00	45.74	I	N
ÁTOMO	35	CA	ARG	I	11	34.605	24.150	-6.058	1.00	47.06	I	C
ÁTOMO	36	CB	ARG	I	11	33.268	24.453	-6.736	1.00	50.47	I	C
ÁTOMO	37	CG	ARG	I	11	33.168	23.828	-8.127	1.00	55.23	I	C
ÁTOMO	38	CD	ARG	I	11	32.056	24.466	-8.967	1.00	59.66	I	C
ÁTOMO	39	NE	ARG	I	11	32.248	24.165	-10.388	1.00	64.26	I	N
ÁTOMO	40	CZ	ARG	I	11	31.352	23.350	-10.973	1.00	67.01	I	C
ÁTOMO	41	NH1	ARG	I	11	30.187	23.118	-10.391	1.00	67.52	I	N
ÁTOMO	42	NH2	ARG	I	11	31.638	22.791	-12.151	1.00	66.67	I	N
ÁTOMO	43	C	ARG	I	11	35.750	24.793	-6.845	1.00	46.55	I	C
ÁTOMO	44	O	ARG	I	11	36.517	24.134	-7.533	1.00	47.11	I	O
ÁTOMO	45	N	GLU	I	12	35.823	26.135	-6.761	1.00	46.28	I	N
ÁTOMO	46	CA	GLU	I	12	36.863	26.843	-7.497	1.00	45.52	I	C
ÁTOMO	47	CB	GLU	I	12	36.654	28.346	-7.313	1.00	46.38	I	C
ÁTOMO	48	CG	GLU	I	12	35.298	28.819	-7.850	1.00	49.26	I	C
ÁTOMO	49	CD	GLU	I	12	35.349	28.900	-9.359	1.00	51.60	I	C
ÁTOMO	50	OE1	GLU	I	12	36.412	29.179	-9.898	1.00	54.40	I	O

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ÁTOMO	51	OE2	GLU	I	12	34.312	28.700	-9.988	1.00	53.81	I	O
ÁTOMO	52	C	GLU	I	12	38.261	26.436	-7.031	1.00	43.95	I	C
ÁTOMO	53	O	GLU	I	12	39.205	26.341	-7.804	1.00	44.02	I	O
ÁTOMO	54	N	LEU	I	13	38.395	26.233	-5.707	1.00	43.03	I	N
ÁTOMO	55	CA	LEU	I	13	39.685	25.790	-5.186	1.00	43.21	I	C
ÁTOMO	56	CB	LEU	I	13	39.623	25.788	-3.657	1.00	41.91	I	C
ÁTOMO	57	CG	LEU	I	13	40.902	25.240	-3.027	1.00	43.10	I	C
ÁTOMO	58	CD1	LEU	I	13	42.136	26.054	-3.419	1.00	40.08	I	C
ÁTOMO	59	CD2	LEU	I	13	40.855	25.238	-1.496	1.00	43.85	I	C
ÁTOMO	60	C	LEU	I	13	40.035	24.389	-5.688	1.00	44.05	I	C
ÁTOMO	61	O	LEU	I	13	41.146	24.103	-6.105	1.00	44.32	I	O
ÁTOMO	62	N	ILE	I	14	39.045	23.485	-5.597	1.00	44.06	I	N
ÁTOMO	63	CA	ILE	I	14	39.276	22.125	-6.074	1.00	44.78	I	C
ÁTOMO	64	CB	ILE	I	14	37.978	21.332	-5.907	1.00	42.05	I	C
ÁTOMO	65	CG2	ILE	I	14	38.090	19.996	-6.653	1.00	41.67	I	C
ÁTOMO	66	CG1	ILE	I	14	37.731	21.022	-4.430	1.00	39.88	I	C
						36.371	20.368	-4.199	1.00	38.79	I	C
ÁTOMO	68	C	ILE	I	14	39.708	22.115	-7.542	1.00	47.20	I	C
ÁTOMO	69	O	ILE	I	14	40.558	21.340	-7.968	1.00	47.59	I	O
ÁTOMO	70	N	GLU	I	15	39.070	22.994	-8.334	1.00	48.85	I	N
ÁTOMO	71	CA	GLU	I	15	39.369	23.015	-9.761	1.00	51.76	I	C
ÁTOMO	72	CB	GLU	I	15	38.372	23.943	-10.458	1.00	53.36	I	C
ÁTOMO	73	CG	GLU	I	15	36.969	23.340	-10.484	1.00	57.81	I	C
ÁTOMO	74	CD	GLU	I	15	36.115	24.056	-11.508	1.00	61.60	I	C
ÁTOMO	75	OE1	GLU	I	15	34.896	23.958	-11.425	1.00	63.74	I	O
ÁTOMO	76	OE2	GLU	I	15	36.676	24.698	-12.394	1.00	64.24	I	O
ÁTOMO	77	C	GLU	I	15	40.814	23.434	-10.041	1.00	52.17	I	C
ÁTOMO	78	O	GLU	I	15	41.514	22.839	-10.850	1.00	53.33	I	O
ÁTOMO	79	N	GLU	I	16	41.252	24.510	-9.359	1.00	52.90	I	N
ÁTOMO	80	CA	GLU	I	16	42.665	24.891	-9.466	1.00	52.55	I	C
ÁTOMO	81	CB	GLU	I	16	42.895	26.165	-8.650	1.00	53.39	I	C
ÁTOMO	82	CG	GLU	I	16	44.384	26.475	-8.463	1.00	54.58	I	C
ÁTOMO	83	CD	GLU	I	16	44.954	27.031	-9.751	1.00	56.47	I	C
ÁTOMO	84	OE1	GLU	I	16	44.255	27.022	-10.754	1.00	56.93	I	O
ÁTOMO	85	OE2	GLU	I	16	46.105	27.467	-9.741	1.00	56.71	I	O
ÁTOMO	86	C	GLU	I	16	43.630	23.796	-9.001	1.00	51.84	I	C
ÁTOMO	87	O	GLU	I	16	44.655	23.523	-9.623	1.00	50.16	I	O
ÁTOMO	88	N	LEU	I	17	43.323	23.187	-7.842	1.00	53.85	I	N
ÁTOMO	89	CA	LEU	I	17	44.193	22.107	-7.389	1.00	54.85	I	C
ÁTOMO	90	CB	LEU	I	17	43.658	21.562	-6.071	1.00	55.53	I	C
ÁTOMO	91	CG	LEU	I	17	43.933	22.504	-4.894	1.00	57.93	I	C
ÁTOMO	92	CD1	LEU	I	17	43.907	21.778	-3.551	1.00	58.04	I	C
ÁTOMO	93	CD2	LEU	I	17	45.303	23.190	-4.990	1.00	55.21	I	C
ÁTOMO	94	C	LEU	I	17	44.287	20.988	-8.437	1.00	54.64	I	C
ÁTOMO	95	O	LEU	I	17	45.326	20.369	-8.649	1.00	53.29	I	O
ÁTOMO	96	N	VAL	I	18	43.134	20.699	-9.068	1.00	54.67	I	N
ÁTOMO	97	CA	VAL	I	18	43.143	19.739	-10.170	1.00	56.02	I	C
ÁTOMO	98	CB	VAL	I	18	41.707	19.562	-10.669	1.00	55.67	I	C
ÁTOMO	99	CG1	VAL	I	18	41.691	18.686	-11.919	1.00	54.36	I	C
ÁTOMO	100	CG2	VAL	I	18	40.855	18.904	-9.603	1.00	54.26	I	C
ÁTOMO	101	C	VAL	I	18	44.016	20.241	-11.309	1.00	56.81	I	C
ÁTOMO	102	O	VAL	I	18	44.779	19.508	-11.927	1.00	56.49	I	O
ÁTOMO	103	N	ASN	I	19	43.865	21.537	-11.615	1.00	58.66	I	N
ÁTOMO	104	CA	ASN	I	19	44.587	22.072	-12.767	1.00	60.24	I	C
ÁTOMO	105	CB	ASN	I	19	44.243	23.553	-12.930	1.00	62.77	I	C
ÁTOMO	106	CG	ASN	I	19	44.463	23.973	-14.361	1.00	66.30	I	C
ÁTOMO	107	OD1	ASN	I	19	45.444	24.637	-14.697	1.00	66.87	I	O
ÁTOMO	108	ND2	ASN	I	19	43.491	23.599	-15.222	1.00	69.04	I	N
ÁTOMO	109	C	ASN	I	19	46.106	21.874	-12.654	1.00	60.76	I	C
ÁTOMO	110	O	ASN	I	19	46.760	21.386	-13.559	1.00	61.67	I	O
ÁTOMO	111	N	ILE	I	20	46.681	22.301	-11.506	1.00	60.66	I	N
ÁTOMO	112	CA	ILE	I	20	48.133	22.233	-11.369	1.00	61.31	I	C
ÁTOMO	113	CB	ILE	I	20	48.598	23.170	-10.239	1.00	59.89	I	C

ÁTOMO	114	CG2	ILE	I	20	48.081	24.601	-10.471	1.00	59.08	I	C
ÁTOMO	115	CG1	ILE	I	20	48.081	22.695	-8.882	1.00	58.35	I	C
ÁTOMO	116	CD1	ILE	I	20	48.507	23.649	-7.757	1.00	53.99	I	C
ÁTOMO	117	C	ILE	I	20	48.665	20.804	-11.140	1.00	62.24	I	C
ÁTOMO	118	O	ILE	I	20	49.846	20.527	-11.286	1.00	62.82	I	O
ÁTOMO	119	N	THR	I	21	47.766	19.884	-10.725	1.00	64.13	I	N
ÁTOMO	120	CA	THR	I	21	48.272	18.536	-10.475	1.00	67.05	I	C
ÁTOMO	121	CB	THR	I	21	47.515	17.934	-9.292	1.00	65.01	I	C
ÁTOMO	122	OG1	THR	I	21	46.110	18.119	-9.493	1.00	65.20	I	O
ÁTOMO	123	CG2	THR	I	21	47.934	18.634	-7.998	1.00	64.13	I	C
ÁTOMO	124	C	THR	I	21	48.149	17.601	-11.686	1.00	69.94	I	C
ÁTOMO	125	O	THR	I	21	48.386	16.404	-11.597	1.00	70.16	I	O
ÁTOMO	126	N	GLN	I	22	47.717	18.156	-12.833	1.00	74.84	I	N
ÁTOMO	127	CA	GLN	I	22	47.796	17.344	-14.039	1.00	79.56	I	C
ÁTOMO	128	CB	GLN	I	22	47.563	18.242	-15.257	1.00	79.69	I	C
ÁTOMO	129	CG	GLN	I	22	46.107	18.696	-15.411	1.00	82.15	I	C
ÁTOMO	130	CD	GLN	I	22	46.038	19.891	-16.340	1.00	84.37	I	C
ÁTOMO	131	OE1	GLN	I	22	46.743	20.011	-17.331	1.00	85.68	I	O
ÁTOMO	132	NE2	GLN	I	22	45.095	20.790	-15.993	1.00	84.96	I	N
ÁTOMO	133	C	GLN	I	22	49.182	16.717	-14.144	1.00	82.23	I	C
ÁTOMO	134	O	GLN	I	22	50.208	17.384	-14.054	1.00	82.99	I	O
ÁTOMO	135	N	ASN	I	23	49.204	15.378	-14.279	1.00	85.10	I	N
ÁTOMO	136	CA	ASN	I	23	50.502	14.740	-14.456	1.00	87.69	I	C
ÁTOMO	137	CB	ASN	I	23	50.318	13.225	-14.479	1.00	89.46	I	C
ÁTOMO	138	CG	ASN	I	23	49.344	12.907	-15.579	1.00	91.98	I	C
ÁTOMO	139	OD1	ASN	I	23	48.554	13.754	-15.992	1.00	93.28	I	O
ÁTOMO	140	ND2	ASN	I	23	49.394	11.647	-16.047	1.00	92.89	I	N
ÁTOMO	141	C	ASN	I	23	51.177	15.233	-15.731	1.00	88.20	I	C
ÁTOMO	142	O	ASN	I	23	52.391	15.348	-15.826	1.00	88.08	I	O
ÁTOMO	143	N	ASN	I	24	50.337	15.517	-16.746	1.00	88.98	I	N
ÁTOMO	144	CA	ASN	I	24	50.868	16.147	-17.953	1.00	89.45	I	C
ÁTOMO	145	CB	ASN	I	24	49.697	16.736	-18.743	1.00	89.76	I	C
ÁTOMO	146	CG	ASN	I	24	48.615	15.708	-18.883	1.00	90.73	I	C
ÁTOMO	147	OD1	ASN	I	24	47.436	16.026	-19.024	1.00	91.03	I	O
ÁTOMO	148	ND2	ASN	I	24	49.058	14.445	-18.938	1.00	90.98	I	N
ÁTOMO	149	C	ASN	I	24	51.783	17.295	-17.596	1.00	89.22	I	C
ÁTOMO	150	O	ASN	I	24	52.769	17.586	-18.259	1.00	89.67	I	O
ÁTOMO	151	N	LYS	I	25	51.384	18.011	-16.541	1.00	88.77	I	N
ÁTOMO	152	CA	LYS	I	25	52.011	19.292	-16.317	1.00	88.13	I	C
ÁTOMO	153	CB	LYS	I	25	51.236	20.073	-15.261	1.00	87.83	I	C
ÁTOMO	154	CG	LYS	I	25	50.573	21.287	-15.901	1.00	88.09	I	C
ÁTOMO	155	CD	LYS	I	25	49.298	21.716	-15.180	1.00	87.96	I	C
ÁTOMO	156	CE	LYS	I	25	48.765	23.021	-15.758	1.00	87.47	I	C
ÁTOMO	157	NZ	LYS	I	25	47.511	23.383	-15.112	1.00	87.86	I	N
ÁTOMO	158	C	LYS	I	25	53.479	19.177	-15.941	1.00	87.88	I	C
ÁTOMO	159	O	LYS	I	25	54.359	19.464	-16.732	1.00	87.93	I	O
ÁTOMO	160	N	ALA	I	26	53.727	18.768	-14.680	1.00	87.24	I	N
ÁTOMO	161	CA	ALA	I	26	55.097	18.639	-14.190	1.00	87.03	I	C
ÁTOMO	162	CB	ALA	I	26	55.920	19.773	-14.793	1.00	86.82	I	C
ÁTOMO	163	C	ALA	I	26	55.156	18.728	-12.659	1.00	86.17	I	C
ÁTOMO	164	O	ALA	I	26	54.261	19.236	-12.003	1.00	86.49	I	O
ÁTOMO	165	N	PRO	I	27	56.230	18.158	-12.104	1.00	85.00	I	N
ÁTOMO	166	CD	PRO	I	27	57.357	17.502	-12.756	1.00	84.74	I	C
ÁTOMO	167	CA	PRO	I	27	56.407	18.123	-10.655	1.00	83.68	I	C
ÁTOMO	168	CB	PRO	I	27	57.843	17.707	-10.383	1.00	84.54	I	C
ÁTOMO	169	CG	PRO	I	27	58.352	16.974	-11.621	1.00	85.05	I	C
ÁTOMO	170	C	PRO	I	27	56.115	19.479	-10.015	1.00	82.78	I	C
ÁTOMO	171	O	PRO	I	27	56.807	20.461	-10.226	1.00	82.59	I	O
ÁTOMO	172	N	LEU	I	28	55.012	19.496	-9.237	1.00	81.31	I	N

ÁTOMO	173	CA	LEU	I	28	54.588	20.743	-8.605	1.00	79.53	I	C
ÁTOMO	174	CB	LEU	I	28	53.272	20.461	-7.864	1.00	79.22	I	C
ÁTOMO	175	CG	LEU	I	28	52.572	21.747	-7.428	1.00	78.56	I	C
ÁTOMO	176	CD1	LEU	I	28	52.267	22.680	-8.604	1.00	79.42	I	C
ÁTOMO	177	CD2	LEU	I	28	51.238	21.483	-6.732	1.00	78.52	I	C
ÁTOMO	178	C	LEU	I	28	55.648	21.319	-7.638	1.00	78.97	I	C
ÁTOMO	179	O	LEU	I	28	55.966	20.770	-6.599	1.00	78.25	I	O
ÁTOMO	180	N	CYS	I	29	56.233	22.451	-8.080	1.00	78.37	I	N
ÁTOMO	181	CA	CYS	I	29	57.063	23.311	-7.222	1.00	78.80	I	C
ÁTOMO	182	C	CYS	I	29	58.558	22.927	-7.126	1.00	79.64	I	C
ÁTOMO	183	O	CYS	I	29	59.399	23.724	-6.710	1.00	81.19	I	O
ÁTOMO	184	CB	CYS	I	29	56.387	23.648	-5.869	1.00	78.02	I	C
ÁTOMO	185	SG	CYS	I	29	55.321	25.110	-5.991	1.00	79.53	I	S
ÁTOMO	186	N	ALA	I	30	58.833	21.638	-7.488	1.00	79.61	I	N
ÁTOMO	187	CA	ALA	I	30	60.144	21.242	-8.025	1.00	79.88	I	C
ÁTOMO	188	CB	ALA	I	30	60.819	22.492	-8.580	1.00	79.91	I	C
ÁTOMO	189	C	ALA	I	30	61.080	20.547	-7.032	1.00	79.67	I	C
ÁTOMO	190	O	ALA	I	30	62.298	20.718	-7.049	1.00	80.11	I	O
ÁTOMO	191	N	GLY	I	31	60.482	19.717	-6.179	1.00	79.21	I	N
ÁTOMO	192	CA	GLY	I	31	61.112	19.428	-4.906	1.00	79.39	I	C
ÁTOMO	193	C	GLY	I	31	60.344	20.181	-3.821	1.00	78.91	I	C
ÁTOMO	194	O	GLY	I	31	59.220	19.845	-3.484	1.00	80.31	I	O
ÁTOMO	195	N	SER	I	32	60.988	21.238	-3.271	1.00	77.08	I	N
ÁTOMO	196	CA	SER	I	32	60.317	22.073	-2.255	1.00	75.27	I	C
ÁTOMO	197	CB	SER	I	32	59.382	23.064	-2.969	1.00	76.77	I	C
ÁTOMO	198	OG	SER	I	32	60.013	24.342	-3.017	1.00	80.23	I	O
ÁTOMO	199	C	SER	I	32	59.517	21.252	-1.233	1.00	73.51	I	C
ÁTOMO	200	O	SER	I	32	58.519	20.628	-1.553	1.00	73.95	I	O
ÁTOMO	201	N	MET	I	33	59.990	21.253	0.035	1.00	71.50	I	N
ÁTOMO	202	CA	MET	I	33	59.323	20.420	1.043	1.00	68.96	I	C
ÁTOMO	203	CB	MET	I	33	60.384	19.555	1.713	1.00	69.85	I	C
ÁTOMO	204	CG	MET	I	33	61.259	18.852	0.686	1.00	70.72	I	C
ÁTOMO	205	SD	MET	I	33	60.793	17.138	0.458	1.00	73.74	I	S
ÁTOMO	206	CE	MET	I	33	61.652	16.452	1.874	1.00	72.51	I	C
ÁTOMO	207	C	MET	I	33	58.580	21.248	2.085	1.00	66.87	I	C
ÁTOMO	208	O	MET	I	33	59.084	22.195	2.664	1.00	67.96	I	O
ÁTOMO	209	N	VAL	I	34	57.293	20.874	2.281	1.00	64.12	I	N
ÁTOMO	210	CA	VAL	I	34	56.489	21.588	3.270	1.00	62.22	I	C
ÁTOMO	211	CB	VAL	I	34	55.262	22.183	2.578	1.00	62.02	I	C
ÁTOMO	212	CG1	VAL	I	34	55.684	23.296	1.626	1.00	60.10	I	C
ÁTOMO	213	CG2	VAL	I	34	54.532	21.107	1.800	1.00	58.25	I	C
ÁTOMO	214	C	VAL	I	34	56.029	20.700	4.450	1.00	62.11	I	C
ÁTOMO	215	O	VAL	I	34	56.054	19.479	4.372	1.00	61.47	I	O
ÁTOMO	216	N	TRP	I	35	55.618	21.355	5.548	1.00	61.68	I	N
ÁTOMO	217	CA	TRP	I	35	55.103	20.602	6.682	1.00	62.60	I	C
ÁTOMO	218	CB	TRP	I	35	54.958	21.567	7.862	1.00	63.98	I	C
ÁTOMO	219	CG	TRP	I	35	56.272	22.146	8.225	1.00	66.88	I	C
ÁTOMO	220	CD2	TRP	I	35	57.297	21.517	9.027	1.00	67.70	I	C
ÁTOMO	221	CE2	TRP	I	35	58.343	22.460	9.190	1.00	68.28	I	C
ÁTOMO	222	CE3	TRP	I	35	57.413	20.260	9.614	1.00	68.19	I	C
ÁTOMO	223	CD1	TRP	I	35	56.738	23.441	7.917	1.00	66.99	I	C
ÁTOMO	224	NE1	TRP	I	35	57.957	23.700	8.466	1.00	67.36	I	N
ÁTOMO	225	CZ2	TRP	I	35	59.461	22.131	9.942	1.00	69.16	I	C
ÁTOMO	226	CZ3	TRP	I	35	58.531	19.930	10.361	1.00	68.91	I	C
ÁTOMO	227	CH2	TRP	I	35	59.566	20.873	10.520	1.00	69.23	I	C
ÁTOMO	228	C	TRP	I	35	53.742	19.994	6.356	1.00	62.37	I	C
ÁTOMO	229	O	TRP	I	35	52.840	20.652	5.855	1.00	62.15	I	O
ÁTOMO	230	N	SER	I	36	53.617	18.680	6.609	1.00	61.20	I	N

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ÁTOMO	231	CA	SER	I	36	52.275	18.095	6.574	1.00	61.84	I	C
ÁTOMO	232	CB	SER	I	36	52.414	16.571	6.702	1.00	62.31	I	C
ÁTOMO	233	OG	SER	I	36	52.742	16.233	8.048	1.00	65.85	I	O
ÁTOMO	234	C	SER	I	36	51.383	18.640	7.689	1.00	60.45	I	C
ÁTOMO	235	O	SER	I	36	51.831	19.023	8.763	1.00	60.13	I	O
ÁTOMO	236	N	ILE	I	37	50.069	18.705	7.388	1.00	60.87	I	N
ÁTOMO	237	CA	ILE	I	37	49.138	19.284	8.348	1.00	62.76	I	C
ÁTOMO	238	CB	ILE	I	37	48.525	20.527	7.703	1.00	60.98	I	C
ÁTOMO	239	CG2	ILE	I	37	49.641	21.486	7.246	1.00	60.58	I	C
ÁTOMO	240	CG1	ILE	I	37	47.726	20.118	6.461	1.00	61.47	I	C
ÁTOMO	241	CD1	ILE	I	37	46.656	21.150	6.106	1.00	63.20	I	C
ÁTOMO	242	C	ILE	I	37	48.015	18.316	8.735	1.00	64.55	I	C
ÁTOMO	243	O	ILE	I	37	47.844	17.247	8.163	1.00	64.40	I	O
ÁTOMO	244	N	ASN	I	38	47.249	18.723	9.757	1.00	67.19	I	N
ÁTOMO	245	CA	ASN	I	38	46.117	17.915	10.192	1.00	69.16	I	C
ÁTOMO	246	CB	ASN	I	38	45.872	18.200	11.675	1.00	71.48	I	C
ÁTOMO	247	CG	ASN	I	38	46.010	16.925	12.468	1.00	74.53	I	C
ÁTOMO	248	OD1	ASN	I	38	45.727	16.866	13.660	1.00	76.30	I	O
ÁTOMO	249	ND2	ASN	I	38	46.427	15.862	11.758	1.00	76.89	I	N
ÁTOMO	250	C	ASN	I	38	44.853	18.237	9.387	1.00	70.38	I	C
ÁTOMO	251	O	ASN	I	38	44.318	19.337	9.422	1.00	70.94	I	O
ÁTOMO	252	N	LEU	I	39	44.401	17.230	8.613	1.00	71.67	I	N
ÁTOMO	253	CA	LEU	I	39	43.191	17.403	7.817	1.00	73.26	I	C
ÁTOMO	254	CB	LEU	I	39	43.216	16.369	6.691	1.00	71.42	I	C
ÁTOMO	255	CG	LEU	I	39	44.416	16.557	5.761	1.00	70.72	I	C
ÁTOMO	256	CD1	LEU	I	39	44.567	15.415	4.753	1.00	69.87	I	C
ÁTOMO	257	CD2	LEU	I	39	44.331	17.845	4.944	1.00	68.56	I	C
ÁTOMO	258	C	LEU	I	39	41.924	17.225	8.662	1.00	74.76	I	C
ÁTOMO	259	O	LEU	I	39	40.887	16.763	8.201	1.00	75.68	I	O
ÁTOMO	260	N	THR	I	40	42.048	17.574	9.956	1.00	76.50	I	N
ÁTOMO	261	CA	THR	I	40	40.904	17.441	10.850	1.00	78.43	I	C
ÁTOMO	262	CB	THR	I	40	41.422	17.074	12.241	1.00	78.89	I	C
ÁTOMO	263	OG1	THR	I	40	40.752	17.875	13.216	1.00	80.37	I	O
ÁTOMO	264	CG2	THR	I	40	42.926	17.345	12.328	1.00	80.30	I	C
ÁTOMO	265	C	THR	I	40	40.086	18.734	10.919	1.00	78.70	I	C
ÁTOMO	266	O	THR	I	40	38.886	18.762	10.684	1.00	80.14	I	O
ÁTOMO	267	N	ALA	I	41	40.775	19.826	11.301	1.00	77.65	I	N
ÁTOMO	268	CA	ALA	I	41	40.097	21.115	11.376	1.00	76.51	I	C
ÁTOMO	269	CB	ALA	I	41	39.375	21.199	12.721	1.00	77.98	I	C
ÁTOMO	270	C	ALA	I	41	41.083	22.276	11.238	1.00	75.39	I	C
ÁTOMO	271	O	ALA	I	41	42.295	22.105	11.220	1.00	76.85	I	O
ÁTOMO	272	N	GLY	I	42	40.522	23.491	11.101	1.00	72.26	I	N
ÁTOMO	273	CA	GLY	I	42	41.385	24.649	10.911	1.00	67.39	I	C
ÁTOMO	274	C	GLY	I	42	42.460	24.359	9.862	1.00	65.34	I	C
ÁTOMO	275	O	GLY	I	42	43.566	24.883	9.890	1.00	63.64	I	O
ÁTOMO	276	N	MET	I	43	42.109	23.451	8.934	1.00	62.58	I	N
ÁTOMO	277	CA	MET	I	43	43.066	23.063	7.907	1.00	61.81	I	C
ÁTOMO	278	CB	MET	I	43	42.560	21.786	7.235	1.00	64.31	I	C
ÁTOMO	279	CG	MET	I	43	42.556	21.887	5.709	1.00	67.10	I	C
ÁTOMO	280	SD	MET	I	43	40.973	21.412	5.002	1.00	73.29	I	S
ÁTOMO	281	CE	MET	I	43	41.014	22.487	3.561	1.00	70.95	I	C
ÁTOMO	282	C	MET	I	43	43.264	24.166	6.865	1.00	58.78	I	C
ÁTOMO	283	O	MET	I	43	44.344	24.362	6.323	1.00	59.66	I	O
ÁTOMO	284	N	TYR	I	44	42.164	24.878	6.554	1.00	54.94	I	N
ÁTOMO	285	CA	TYR	I	44	42.293	25.974	5.602	1.00	50.88	I	C

ÁTOMO	286	CB	TYR	I	44	40.996	26.785	5.604	1.00	51.73	I	C
ÁTOMO	287	CG	TYR	I	44	40.009	26.173	4.671	1.00	51.67	I	C
ÁTOMO	288	CD1	TYR	I	44	40.411	25.757	3.403	1.00	51.08	I	C
ÁTOMO	289	CE1	TYR	I	44	39.505	25.139	2.552	1.00	51.62	I	C
ÁTOMO	290	CD2	TYR	I	44	38.687	25.980	5.071	1.00	51.42	I	C
ÁTOMO	291	CE2	TYR	I	44	37.779	25.371	4.217	1.00	52.73	I	C
ÁTOMO	292	CZ	TYR	I	44	38.183	24.952	2.963	1.00	53.13	I	C
ÁTOMO	293	OH	TYR	I	44	37.296	24.302	2.126	1.00	54.49	I	O
ÁTOMO	294	C	TYR	I	44	43.479	26.869	5.967	1.00	48.15	I	C
ÁTOMO	295	O	TYR	I	44	44.371	27.131	5.170	1.00	45.25	I	O
ÁTOMO	296	N	CYS	I	45	43.454	27.370	7.216	1.00	48.39	I	N
ÁTOMO	297	CA	CYS	I	45	44.568	28.192	7.674	1.00	49.37	I	C
ÁTOMO	298	C	CYS	I	45	45.863	27.379	7.767	1.00	49.62	I	C
ÁTOMO	299	O	CYS	I	45	46.953	27.854	7.477	1.00	48.36	I	O
ÁTOMO	300	CB	CYS	I	45	44.212	28.771	9.046	1.00	51.15	I	C
ÁTOMO	301	SG	CYS	I	45	42.721	29.792	8.999	1.00	56.43	I	S
ÁTOMO	302	N	ALA	I	46	45.720	26.119	8.223	1.00	49.15	I	N
ÁTOMO	303	CA	ALA	I	46	46.898	25.272	8.376	1.00	47.97	I	C
ÁTOMO	304	CB	ALA	I	46	46.475	23.966	9.051	1.00	47.77	I	C
ÁTOMO	305	C	ALA	I	46	47.575	24.978	7.032	1.00	47.47	I	C
ÁTOMO	306	O	ALA	I	46	48.792	24.976	6.904	1.00	47.08	I	O
ÁTOMO	307	N	ALA	I	47	46.743	24.679	6.016	1.00	45.70	I	N
ÁTOMO	308	CA	ALA	I	47	47.304	24.448	4.690	1.00	46.29	I	C
ÁTOMO	309	CB	ALA	I	47	46.187	23.965	3.764	1.00	44.99	I	C
ÁTOMO	310	C	ALA	I	47	47.937	25.724	4.131	1.00	46.25	I	C
ÁTOMO	311	O	ALA	I	47	48.926	25.704	3.410	1.00	46.92	I	O
ÁTOMO	312	N	LEU	I	48	47.298	26.864	4.459	1.00	45.80	I	N
ÁTOMO	313	CA	LEU	I	48	47.863	28.149	4.062	1.00	44.83	I	C
ÁTOMO	314	CB	LEU	I	48	46.891	29.252	4.496	1.00	43.51	I	C
ÁTOMO	315	CG	LEU	I	48	47.494	30.657	4.381	1.00	42.29	I	C
ÁTOMO	316	CD1	LEU	I	48	47.729	31.076	2.928	1.00	39.28	I	C
ÁTOMO	317	CD2	LEU	I	48	46.606	31.740	4.998	1.00	41.45	I	C
ÁTOMO	318	C	LEU	I	48	49.228	28.368	4.720	1.00	45.57	I	C
ÁTOMO	319	O	LEU	I	48	50.204	28.759	4.093	1.00	45.62	I	O
ÁTOMO	320	N	GLU	I	49	49.255	28.124	6.044	1.00	46.20	I	N
ÁTOMO	321	CA	GLU	I	49	50.467	28.352	6.822	1.00	47.25	I	C
ÁTOMO	322	CB	GLU	I	49	50.132	28.090	8.289	1.00	49.57	I	C
ÁTOMO	323	CG	GLU	I	49	49.443	29.283	8.946	1.00	51.32	I	C
ÁTOMO	324	CD	GLU	I	49	50.461	30.375	9.167	1.00	54.88	I	C
ÁTOMO	325	OE1	GLU	I	49	51.143	30.341	10.181	1.00	58.35	I	O
ÁTOMO	326	OE2	GLU	I	49	50.587	31.239	8.300	1.00	53.85	I	O
ÁTOMO	327	C	GLU	I	49	51.617	27.442	6.388	1.00	48.23	I	C
ÁTOMO	328	O	GLU	I	49	52.779	27.652	6.718	1.00	49.06	I	O
ÁTOMO	329	N	SER	I	50	51.255	26.371	5.662	1.00	48.38	I	N
ÁTOMO	330	CA	SER	I	50	52.363	25.494	5.298	1.00	48.77	I	C
ÁTOMO	331	CB	SER	I	50	51.909	24.047	5.493	1.00	49.02	I	C
ÁTOMO	332	OG	SER	I	50	52.793	23.175	4.786	1.00	49.21	I	O
ÁTOMO	333	C	SER	I	50	52.802	25.712	3.847	1.00	48.18	I	C
ÁTOMO	334	O	SER	I	50	53.961	25.559	3.484	1.00	48.73	I	O
ÁTOMO	335	N	LEU	I	51	51.812	26.041	2.997	1.00	47.10	I	N
ÁTOMO	336	CA	LEU	I	51	52.118	26.266	1.589	1.00	47.89	I	C
ÁTOMO	337	CB	LEU	I	51	50.821	26.119	0.793	1.00	46.69	I	C
ÁTOMO	338	CG	LEU	I	51	50.533	24.668	0.401	1.00	49.04	I	C
ÁTOMO	339	CD1	LEU	I	51	49.442	24.556	-0.665	1.00	50.21	I	C
ÁTOMO	340	CD2	LEU	I	51	51.760	23.952	-0.165	1.00	46.43	I	C
ÁTOMO	341	C	LEU	I	51	52.712	27.658	1.358	1.00	48.63	I	C
ÁTOMO	342	O	LEU	I	51	53.188	27.996	0.282	1.00	48.41	I	O
ÁTOMO	343	N	ILE	I	52	52.637	28.491	2.413	1.00	49.30	I	N
ÁTOMO	344	CA	ILE	I	52	53.124	29.859	2.285	1.00	50.61	I	C
ÁTOMO	345	CB	ILE	I	52	52.519	30.688	3.419	1.00	49.79	I	C

ÁTOMO	346	CG2	ILE	I	52	53.293	30.428	4.724	1.00	49.21	I	C
ÁTOMO	347	CG1	ILE	I	52	52.627	32.181	3.098	1.00	48.59	I	C
ÁTOMO	348	CD1	ILE	I	52	52.045	32.525	1.727	1.00	45.04	I	C
ÁTOMO	349	C	ILE	I	52	54.652	29.931	2.341	1.00	51.05	I	C
ÁTOMO	350	O	ILE	I	52	55.268	30.958	2.087	1.00	53.83	I	O
ÁTOMO	351	N	ASN	I	53	55.265	28.798	2.730	1.00	51.02	I	N
ÁTOMO	352	CA	ASN	I	53	56.720	28.765	2.818	1.00	51.33	I	C
ÁTOMO	353	CB	ASN	I	53	57.111	27.732	3.876	1.00	47.60	I	C
ÁTOMO	354	CG	ASN	I	53	56.768	28.261	5.244	1.00	47.65	I	C
ÁTOMO	355	OD1	ASN	I	53	57.029	29.413	5.578	1.00	46.87	I	O
ÁTOMO	356	ND2	ASN	I	53	56.161	27.379	6.056	1.00	45.54	I	N
ÁTOMO	357	C	ASN	I	53	57.360	28.407	1.475	1.00	53.53	I	C
ÁTOMO	358	O	ASN	I	53	58.573	28.418	1.313	1.00	55.03	I	O
ÁTOMO	359	N	VAL	I	54	56.533	28.020	0.484	1.00	55.95	I	N
ÁTOMO	360	CA	VAL	I	54	57.100	27.653	-0.810	1.00	57.77	I	C
ÁTOMO	361	CB	VAL	I	54	55.997	27.031	-1.665	1.00	56.62	I	C
ÁTOMO	362	CG1	VAL	I	54	56.544	26.690	-3.050	1.00	53.96	I	C
ÁTOMO	363	CG2	VAL	I	54	55.484	25.765	-1.006	1.00	57.42	I	C
ÁTOMO	364	C	VAL	I	54	57.696	28.866	-1.528	1.00	59.21	I	C
ÁTOMO	365	O	VAL	I	54	57.025	29.846	-1.826	1.00	60.15	I	O
ÁTOMO	366	N	SER	I	55	59.016	28.790	-1.772	1.00	60.64	I	N
ÁTOMO	367	CA	SER	I	55	59.701	29.918	-2.390	1.00	63.25	I	C
ÁTOMO	368	CB	SER	I	55	61.060	30.076	-1.702	1.00	62.79	I	C
ÁTOMO	369	OG	SER	I	55	61.384	31.463	-1.600	1.00	63.77	I	O
ÁTOMO	370	C	SER	I	55	59.902	29.717	-3.895	1.00	63.87	I	C
ÁTOMO	371	O	SER	I	55	60.192	28.631	-4.378	1.00	64.14	I	O
ÁTOMO	372	N	GLY	I	56	59.683	30.814	-4.647	1.00	65.44	I	N
ÁTOMO	373	CA	GLY	I	56	60.020	30.814	-6.068	1.00	67.00	I	C
ÁTOMO	374	C	GLY	I	56	59.271	29.742	-6.869	1.00	67.92	I	C
ÁTOMO	375	O	GLY	I	56	59.850	28.975	-7.626	1.00	68.15	I	O
ÁTOMO	376	N	CYS	I	57	57.942	29.687	-6.661	1.00	68.54	I	N
ÁTOMO	377	CA	CYS	I	57	57.166	28.788	-7.503	1.00	68.81	I	C
ÁTOMO	378	C	CYS	I	57	55.803	29.402	-7.865	1.00	67.61	I	C
ÁTOMO	379	O	CYS	I	57	55.028	29.826	-7.003	1.00	66.76	I	O
ÁTOMO	380	CB	CYS	I	57	56.999	27.498	-6.693	1.00	70.76	I	C
ÁTOMO	381	SG	CYS	I	57	56.071	26.192	-7.524	1.00	75.77	I	S
ÁTOMO	382	N	SER	I	58	55.726	29.762	-9.162	1.00	65.88	I	N
ÁTOMO	383	CA	SER	I	58	54.578	30.538	-9.626	1.00	65.26	I	C
ÁTOMO	384	CB	SER	I	58	54.958	31.236	-10.936	1.00	65.56	I	C
ÁTOMO	385	OG	SER	I	58	55.073	30.270	-11.982	1.00	66.55	I	O
ÁTOMO	386	C	SER	I	58	53.319	29.687	-9.825	1.00	64.15	I	C
ÁTOMO	387	O	SER	I	58	52.266	30.169	-10.222	1.00	63.50	I	O
ÁTOMO	388	N	ALA	I	59	53.455	28.375	-9.562	1.00	62.82	I	N
ÁTOMO	389	CA	ALA	I	59	52.326	27.484	-9.813	1.00	62.09	I	C
ÁTOMO	390	CB	ALA	I	59	52.868	26.101	-10.175	1.00	61.09	I	C
ÁTOMO	391	C	ALA	I	59	51.366	27.384	-8.621	1.00	62.03	I	C
ÁTOMO	392	O	ALA	I	59	50.187	27.091	-8.765	1.00	61.38	I	0
ÁTOMO	393	N	ILE	I	60	51.906	27.598	-7.403	1.00	60.60	I	N
ÁTOMO	394	CA	ILE	I	60	51.033	27.514	-6.233	1.00	61.29	I	C
ÁTOMO	395	CB	ILE	I	60	51.743	26.744	-5.117	1.00	62.02	I	C
ÁTOMO	396	CG2	ILE	I	60	51.257	25.284	-5.096	1.00	61.63	I	C
ÁTOMO	397	CG1	ILE	I	60	53.256	26.741	-5.334	1.00	62.92	I	C
ÁTOMO	398	CD1	ILE	I	60	53.948	27.890	-4.598	1.00	65.77	I	C
ÁTOMO	399	C	ILE	I	60	50.602	28.887	-5.721	1.00	60.92	I	C
ÁTOMO	400	O	ILE	I	60	49.867	29.018	-4.752	1.00	60.67	I	O
ÁTOMO	401	N	GLU	I	61	51.112	29.943	-6.377	1.00	60.36	I	N
ÁTOMO	402	CA	GLU	I	61	50.752	31.274	-5.910	1.00	59.69	I	C
ÁTOMO	403	CB	GLU	I	61	51.397	32.318	-6.823	1.00	62.53	I	C
ÁTOMO	404	CG	GLU	I	61	52.373	33.217	-6.060	1.00	68.64	I	C

ATOM	405	CD	GLU	I	61	52.334	34.612	-6.640	1.00	71.66	I	C
ATOM	406	OE1	GLU	I	61	51.637	35.456	-6.093	1.00	72.04	I	O
ATOM	407	OE2	GLU	I	61	53.018	34.848	-7.635	1.00	74.33	I	O
ATOM	408	C	GLU	I	61	49.231	31.460	-5.849	1.00	57.43	I	C
ATOM	409	O	GLU	I	61	48.677	31.954	-4.877	1.00	56.73	I	O
ATOM	410	N	LYS	I	62	48.550	31.067	-6.943	1.00	55.24	I	N
ATOM	411	CA	LYS	I	62	47.096	31.204	-6.956	1.00	54.11	I	C
ATOM	412	CB	LYS	I	62	46.570	30.752	-8.319	1.00	54.42	I	C
ATOM	413	CG	LYS	I	62	45.070	31.016	-8.470	1.00	55.70	I	C
ATOM	414	CD	LYS	I	62	44.591	30.848	-9.912	1.00	57.84	I	C
ATOM	415	CE	LYS	I	62	43.078	30.621	-10.004	1.00	58.76	I	C
ATOM	416	NZ	LYS	I	62	42.630	30.836	-11.379	1.00	59.46	I	N
ATOM	417	C	LYS	I	62	46.431	30.389	-5.842	1.00	51.70	I	C
ATOM	418	O	LYS	I	62	45.442	30.790	-5.243	1.00	51.21	I	O
ATOM	419	N	THR	I	63	46.985	29.185	-5.602	1.00	49.68	I	N
ATOM	420	CA	THR	I	63	46.452	28.355	-4.525	1.00	49.40	I	C
ATOM	421	CB	THR	I	63	47.196	27.021	-4.530	1.00	49.66	I	C
ATOM	422	OG1	THR	I	63	46.853	26.299	-5.714	1.00	49.02	I	O
ATOM	423	CG2	THR	I	63	46.782	26.192	-3.310	1.00	48.32	I	C
ATOM	424	C	THR	I	63	46.625	29.037	-3.168	1.00	49.94	I	C
ATOM	425	O	THR	I	63	45.750	29.030	-2.312	1.00	49.16	I	O
ATOM	426	N	GLN	I	64	47.828	29.601	-2.971	1.00	50.00	I	N
ATOM	427	CA	GLN	I	64	48.064	30.380	-1.766	1.00	49.18	I	C
ATOM	428	CB	GLN	I	64	49.444	31.026	-1.889	1.00	49.56	I	C
ATOM	429	CG	GLN	I	64	50.577	30.038	-1.627	1.00	50.10	I	C
ATOM	430	CD	GLN	I	64	51.901	30.746	-1.780	1.00	51.30	I	C
ATOM	431	OE1	GLN	I	64	52.056	31.717	-2.504	1.00	53.24	I	O
ATOM	432	NE2	GLN	I	64	52.891	30.211	-1.040	1.00	47.60	I	N
ATOM	433	C	GLN	I	64	47.004	31.469	-1.597	1.00	49.30	I	C
ATOM	434	O	GLN	I	64	46.492	31.724	-0.516	1.00	50.23	I	O
ATOM	435	N	ARG	I	65	46.702	32.147	-2.718	1.00	49.37	I	N
ATOM	436	CA	ARG	I	65	45.771	33.263	-2.639	1.00	49.52	I	C
ATOM	437	CB	ARG	I	65	45.892	34.095	-3.919	1.00	52.37	I	C
ATOM	438	CG	ARG	I	65	47.116	35.013	-3.869	1.00	55.43	I	C
ATOM	439	CD	ARG	I	65	47.199	35.977	-5.060	1.00	58.20	I	C
ATOM	440	NE	ARG	I	65	47.732	37.273	-4.625	1.00	61.26	I	N
ATOM	441	CZ	ARG	I	65	49.032	37.535	-4.870	1.00	60.37	I	C
ATOM	442	NH1	ARG	I	65	49.771	36.671	-5.541	1.00	62.13	I	N
ATOM	443	NH2	ARG	I	65	49.595	38.624	-4.337	1.00	59.84	I	N
ATOM	444	C	ARG	I	65	44.329	32.802	-2.402	1.00	47.23	I	C
ATOM	445	O	ARG	I	65	43.526	33.477	-1.771	1.00	46.87	I	O
ATOM	446	N	MET	I	66	43.996	31.620	-2.951	1.00	45.98	I	N
ATOM	447	CA	MET	I	66	42.650	31.105	-2.732	1.00	45.22	I	C
ATOM	448	CB	MET	I	66	42.402	29.953	-3.705	1.00	46.64	I	C
ATOM	449	CG	MET	I	66	42.429	30.420	-5.162	1.00	48.54	I	C
ATOM	450	SD	MET	I	66	42.132	29.076	-6.318	1.00	52.12	I	S
ATOM	451	CE	MET	I	66	40.419	29.463	-6.708	1.00	51.79	I	C
ATOM	452	C	MET	I	66	42.443	30.649	-1.284	1.00	43.95	I	C
ATOM	453	O	MET	I	66	41.389	30.829	-0.688	1.00	41.50	I	O
ATOM	454	N	LEU	I	67	43.485	30.009	-0.723	1.00	42.00	I	N
ATOM	455	CA	LEU	I	67	43.402	29.630	0.683	1.00	42.22	I	C
ATOM	456	CB	LEU	I	67	44.658	28.838	1.046	1.00	42.57	I	C
ATOM	457	CG	LEU	I	67	44.687	27.464	0.376	1.00	44.35	I	C
ATOM	458	CD1	LEU	I	67	46.052	26.785	0.490	1.00	41.18	I	C
ATOM	459	CD2	LEU	I	67	43.670	26.491	0.974	1.00	42.25	I	C
ATOM	460	C	LEU	I	67	43.271	30.860	1.583	1.00	41.42	I	C
ATOM	461	O	LEU	I	67	42.550	30.875	2.572	1.00	39.85	I	O
ATOM	462	N	SER	I	68	44.034	31.912	1.231	1.00	42.67	I	N
ATOM	463	CA	SER	I	68	43.913	33.155	1.981	1.00	43.98	I	C
ATOM	464	CB	SER	I	68	44.801	34.206	1.314	1.00	43.69	I	C
ATOM	465	OG	SER	I	68	46.159	33.765	1.351	1.00	46.45	I	O
ATOM	466	C	SER	I	68	42.460	33.632	2.008	1.00	44.59	I	C
ATOM	467	O	SER	I	68	41.994	34.271	2.942	1.00	44.55	I	O
ATOM	468	N	GLY	I	69	41.747	33.322	0.909	1.00	45.22	I	N
ATOM	469	CA	GLY	I	69	40.335	33.675	0.838	1.00	46.25	I	C
ATOM	470	C	GLY	I	69	39.526	32.989	1.942	1.00	48.08	I	C

ÁTOMO	471	O	GLY	I	69	38.600	33.548	2.515	1.00	48.24	I	O
ÁTOMO	472	N	PHE	I	70	39.880	31.716	2.206	1.00	48.01	I	N
ÁTOMO	473	CA	PHE	I	70	39.178	30.975	3.249	1.00	48.55	I	C
ÁTOMO	474	CB	PHE	I	70	39.423	29.481	3.022	1.00	49.37	I	C
ÁTOMO	475	CG	PHE	I	70	38.521	28.958	1.939	1.00	49.79	I	C
ÁTOMO	476	CD1	PHE	I	70	39.043	28.718	0.674	1.00	47.81	I	C
ÁTOMO	477	CD2	PHE	I	70	37.236	28.542	2.253	1.00	50.11	I	C
ÁTOMO	478	CE1	PHE	I	70	38.286	28.035	-0.269	1.00	47.12	I	C
ÁTOMO	479	CE2	PHE	I	70	36.483	27.857	1.302	1.00	49.17	I	C
ÁTOMO	480	CZ	PHE	I	70	37.006	27.596	0.041	1.00	47.05	I	C
ÁTOMO	481	C	PHE	I	70	39.674	31.371	4.644	1.00	49.59	I	C
ÁTOMO	482	O	PHE	I	70	38.995	31.218	5.651	1.00	49.43	I	O
ÁTOMO	483	N	CYS	I	71	40.929	31.858	4.679	1.00	50.98	I	N
ÁTOMO	484	CA	CYS	I	71	41.534	32.251	5.952	1.00	51.34	I	C
ÁTOMO	485	C	CYS	I	71	42.194	33.617	5.844	1.00	49.66	I	C
ÁTOMO	486	O	CYS	I	71	43.418	33.763	5.815	1.00	48.07	I	O
ÁTOMO	487	CB	CYS	I	71	42.572	31.188	6.320	1.00	52.25	I	C
ÁTOMO	488	SG	CYS	I	71	43.274	31.439	7.967	1.00	56.38	I	S
ÁTOMO	489	N	PRO	I	72	41.359	34.671	5.747	1.00	49.56	I	N
ÁTOMO	490	CD	PRO	I	72	39.902	34.657	5.899	1.00	48.36	I	C
ÁTOMO	491	CA	PRO	I	72	41.820	36.017	5.495	1.00	49.81	I	C
ÁTOMO	492	CB	PRO	I	72	40.606	36.853	5.112	1.00	48.73	I	C
ÁTOMO	493	CG	PRO	I	72	39.372	36.152	5.670	1.00	48.32	I	C
ÁTOMO	494	C	PRO	I	72	42.483	36.612	6.738	1.00	50.31	I	C
ÁTOMO	495	O	PRO	I	72	43.489	37.301	6.685	1.00	49.60	I	O
ÁTOMO	496	N	HIS	I	73	41.834	36.347	7.885	1.00	52.63	I	N
ÁTOMO	497	CA	HIS	I	73	42.366	36.834	9.148	1.00	54.75	I	C
ÁTOMO	498	CB	HIS	I	73	41.189	37.292	10.003	1.00	53.22	I	C
ÁTOMO	499	CG	HIS	I	73	40.877	38.728	9.705	1.00	51.21	I	C
ÁTOMO	500	CD2	HIS	I	73	40.029	39.238	8.718	1.00	49.78	I	C
ÁTOMO	501	ND1	HIS	I	73	41.443	39.765	10.369	1.00	50.07	I	N
ÁTOMO	502	CE1	HIS	I	73	40.952	40.876	9.787	1.00	52.20	I	C
ÁTOMO	503	NE2	HIS	I	73	40.103	40.590	8.796	1.00	50.88	I	N
ÁTOMO	504	C	HIS	I	73	43.100	35.735	9.890	1.00	57.36	I	C
ÁTOMO	505	O	HIS	I	73	42.525	34.738	10.310	1.00	56.89	I	O
ÁTOMO	506	N	LYS	I	74	44.419	35.908	10.022	1.00	62.03	I	N
ÁTOMO	507	CA	LYS	I	74	45.102	34.981	10.900	1.00	66.84	I	C
ÁTOMO	508	CB	LYS	I	74	46.439	35.615	11.316	1.00	66.79	I	C
ÁTOMO	509	CG	LYS	I	74	47.278	34.687	12.199	1.00	67.62	I	C
ÁTOMO	510	CD	LYS	I	74	48.761	35.059	12.195	1.00	67.42	I	C
ÁTOMO	511	CE	LYS	I	74	49.439	34.791	13.542	1.00	67.41	I	C
ÁTOMO	512	NZ	LYS	I	74	49.380	35.994	14.372	1.00	66.83	I	N
ÁTOMO	513	C	LYS	I	74	44.235	34.707	12.135	1.00	70.71	I	C
ÁTOMO	514	O	LYS	I	74	44.166	35.504	13.065	1.00	72.13	I	O
ÁTOMO	515	N	VAL	I	75	43.487	33.581	12.071	1.00	76.53	I	N
ÁTOMO	516	CA	VAL	I	75	42.976	32.997	13.308	1.00	80.60	I	C
ÁTOMO	517	CB	VAL	I	75	41.591	32.408	13.145	1.00	80.99	I	C
ÁTOMO	518	CG1	VAL	I	75	41.658	31.357	12.040	1.00	80.41	I	C
ÁTOMO	519	CG2	VAL	I	75	41.258	31.684	14.447	1.00	81.80	I	C
ÁTOMO	520	C	VAL	I	75	43.835	31.838	13.734	1.00	83.10	I	C
ÁTOMO	'521	O	VAL	I	75	43.359	30.786	14.129	1.00	84.01	I	O
ÁTOMO	522	N	SER	I	76	45.127	31.973	13.523	1.00	86.18	I	N
ÁTOMO	523	CA	SER	I	76	45.963	31.363	14.531	1.00	88.83	I	C
ÁTOMO	524	CB	SER	I	76	47.383	31.508	13.984	1.00	89.61	I	C
ÁTOMO	526	C	SER	I	76	45.692	32.232	15.775	1.00	90.59	I	C
ÁTOMO	527	O	SER	I	76	45.810	33.452	15.712	1.00	91.56	I	O
ÁTOMO	528	N	ALA	I	77	45.289	31.650	16.940	1.00	92.05	I	N

ÁTOMO	529	CA	ALA	I	77	45.874	30.456	17.557	1.00	92.64	I	C
ÁTOMO	530	CB	ALA	I	77	45.180	30.233	18.903	1.00	92.84	I	C
ÁTOMO	531	C	ALA	I	77	45.853	29.186	16.729	1.00	92.83	I	C
ÁTOMO	532	O	ALA	I	77	44.830	28.560	16.481	1.00	92.95	I	O
ÁTOMO	533	N	GLY	I	78	47.061	28.804	16.299	1.00	93.00	I	N
ÁTOMO	534	CA	GLY	I	78	47.152	27.662	15.397	1.00	92.73	I	C
ÁTOMO	535	C	GLY	I	78	48.525	27.008	15.458	1.00	92.58	I	C
ÁTOMO	536	O	GLY	I	78	48.765	26.088	16.231	1.00	93.01	I	O
ÁTOMO	537	N	ALA	I	86	52.371	15.408	13.593	1.00	92.36	I	N
ÁTOMO	538	CA	ALA	I	86	53.584	14.621	13.409	1.00	91.82	I	C
ÁTOMO	539	CI3	ALA	I	86	53.416	13.774	12.147	1.00	91.57	I	C
ÁTOMO	540	C	ALA	I	86	54.820	15.513	13.278	1.00	90.72	I	C
ÁTOMO	541	O	ALA	I	86	55.786	15.407	14.021	1.00	90.75	I	O
ÁTOMO	542	N	ASP	I	87	54.779	16.393	12.260	1.00	89.29	I	N
ÁTOMO	543	CA	ASP	I	87	55.907	17.291	12.040	1.00	86.83	I	C
ÁTOMO	544	CB	ASP	I	87	56.616	17.505	13.377	1.00	87.75	I	C
ÁTOMO	545	CG	ASP	I	87	56.638	18.991	13.702	1.00	89.12	I	C
ÁTOMO	546	OD1	ASP	I	87	55.666	19.464	14.292	1.00	89.77	I	O
ÁTOMO	547	OD2	ASP	I	87	57.616	19.655	13.367	1.00	88.95	I	O
ÁTOMO	548	C	ASP	I	87	56.888	16.720	11.014	1.00	84.28	I	C
ÁTOMO	549	O	ASP	I	87	58.074	16.550	11.267	1.00	83.94	I	O
ÁTOMO	550	N	THR	I	88	56.342	16.382	9.831	1.00	80.90	I	N
ÁTOMO	551	CA	THR	I	88	57.188	15.835	8.777	1.00	77.36	I	C
ÁTOMO	552	CB	THR	I	88	56.652	14.452	8.405	1.00	77.25	I	C
ÁTOMO	553	OG1	THR	I	88	55.390	14.602	7.753	1.00	77.90	I	O
ÁTOMO	554	CG2	THR	I	88	56.458	13.608	9.668	1.00	77.01	I	C
ÁTOMO	555	C	THR	I	88	57.202	16.739	7.543	1.00	74.91	I	C
ÁTOMO	556	O	THR	I	88	56.322	17.561	7.324	1.00	75.04	I	O
ÁTOMO	557	N	LYS	I	89	58.272	16.591	6.740	1.00	72.57	I	N
ÁTOMO	558	CA	LYS	I	89	58.389	17.409	5.540	1.00	70.36	I	C
ÁTOMO	559	CB	LYS	I	89	59.768	18.070	5.545	1.00	71.28	I	C
ÁTOMO	560	CG	LYS	I	89	59.804	19.332	6.410	1.00	72.04	I	C
ÁTOMO	561	CD	LYS	I	89	60.757	20.391	5.853	1.00	72.01	I	C
ÁTOMO	562	CE	LYS	I	89	60.340	21.815	6.235	1.00	72.21	I	C
ÁTOMO	563	NZ	LYS	I	89	61.031	22.776	5.378	1.00	73.09	I	N
ÁTOMO	564	C	LYS	I	89	58.214	16.576	4.268	1.00	68.20	I	C
ÁTOMO	565	O	LYS	I	89	59.084	15.823	3.853	1.00	69.41	I	O
ÁTOMO	566	N	ILE	I	90	57.017	16.705	3.666	1.00	63.98	I	N
ÁTOMO	567	CA	ILE	I	90	56.741	15.960	2.443	1.00	61.10	I	C
ÁTOMO	568	CB	ILE	I	90	55.316	15.412	2.531	1.00	61.02	I	C
ÁTOMO	569	CG2	ILE	I	90	55.218	14.395	3.683	1.00	60.62	I	C
ÁTOMO	570	CG1	ILE	I	90	54.332	16.548	2.824	1.00	60.18	I	C
ÁTOMO	571	CD1	ILE	I	90	52.892	16.049	2.958	1.00	58.72	I	C
ÁTOMO	572	C	ILE	I	90	56.883	16.844	1.202	1.00	59.31	I	C
ÁTOMO	573	O	ILE	I	90	56.947	18.064	1.280	1.00	60.19	I	O
ÁTOMO	574	N	GLU	I	91	56.980	16.263	-0.006	1.00	57.27	I	N
ÁTOMO	575	CA	GLU	I	91	57.016	17.108	-1.181	1.00	56.01	I	C
ÁTOMO	576	CB	GLU	I	91	57.280	16.218	-2.392	1.00	55.94	I	C
ÁTOMO	577	CG	GLU	I	91	58.646	15.539	-2.323	1.00	59.79	I	C
ÁTOMO	578	CD	GLU	I	91	58.892	14.787	-3.605	1.00	61.27	I	C
ÁTOMO	579	OE1	GLU	I	91	60.027	14.397	-3.857	1.00	64.11	I	O
ÁTOMO	580	OE2	GLU	I	91	57.935	14.589	-4.343	1.00	62.33	I	O
ÁTOMO	581	C	GLU	I	91	55.712	17.891	-1.355	1.00	54.80	I	C
ÁTOMO	582	O	GLU	I	91	54.647	17.524	-0.873	1.00	55.53	I	O
ÁTOMO	583	N	VAL	I	92	55.749	19.000	-2.106	1.00	53.36	I	N
ÁTOMO	584	CA	VAL	I	92	54.578	19.821	-2.225	1.00	52.86	I	C
ÁTOMO	585	CB	VAL	I	92	54.974	21.122	-2.945	1.00	53.89	I	C

ÁTOMO	586	CG1	VAL	I	92	53.780	21.945	-3.400	1.00	54.86	I	C
ÁTOMO	587	CG2	VAL	I	92	55.646	21.999	-1.985	1.00	53.89	I	C
ÁTOMO	588	C	VAL	I	92	53.570	19.088	-3.112	1.00	52.07	I	C
ÁTOMO	589	O	VAL	I	92	52.365	19.039	-2.775	1.00	49.54	I	O
ÁTOMO	590	N	ALA	I	93	54.048	18.417	-4.204	1.00	50.82	I	N
ÁTOMO	591	CA	ALA	I	93	53.158	17.505	-4.939	1.00	51.29	I	C
ÁTOMO	592	CB	ALA	I	93	53.937	16.578	-5.759	1.00	51.50	I	C
ÁTOMO	593	C	ALA	I	93	52.322	16.603	-4.072	1.00	51.78	I	C
ÁTOMO	594	O	ALA	I	93	51.159	16.417	-4.285	1.00	52.02	I	O
ÁTOMO	595	N	GLN	I	94	52.948	15.934	-3.132	1.00	51.82	I	N
ÁTOMO	596	CA	GLN	I	94	52.222	15.013	-2.307	1.00	51.43	I	C
ÁTOMO	597	CB	GLN	I	94	53.244	14.218	-1.468	1.00	51.33	I	C
ÁTOMO	598	CG	GLN	I	94	52.539	13.173	-0.468	1.00	51.17	I	C
ÁTOMO	599	CD	GLN	I	94	52.073	11.932	-1.233	1.00	53.13	I	C
ÁTOMO	600	OE1	GLN	I	94	52.802	11.461	-1.968	1.00	53.01	I	O
ÁTOMO	601	NE2	GLN	I	94	50.805	11.506	-1.078	1.00	52.92	I	N
ÁTOMO	602	C	GLN	I	94	51.354	15.741	-1.330	1.00	50.67	I	C
ÁTOMO	603	O	GLN	I	94	50.272	15.258	-0.945	1.00	51.69	I	O
ÁTOMO	604	N	PHE	I	95	51.805	16.928	-0.896	1.00	48.96	I	N
ÁTOMO	605	CA	PHE	I	95	50.927	17.774	0.055	1.00	46.81	I	C
ÁTOMO	606	CB	PHE	I	95	51.688	19.007	0.444	1.00	44.76	I	C
ÁTOMO	607	CG	PHE	I	95	50.936	19.912	1.508	1.00	45.45	I	C
ÁTOMO	608	CD1	PHE	I	95	51.118	19.792	2.777	1.00	45.87	I	C
ÁTOMO	609	CD2	PHE	I	95	49.931	20.752	1.114	1.00	45.94	I	C
ÁTOMO	610	CE1	PHE	I	95	50.448	20.560	3.810	1.00	45.08	I	C
ÁTOMO	611	CE2	PHE	I	95	49.271	21.524	2.109	1.00	45.21	I	C
ÁTOMO	612	CZ	PHE	I	95	49.544	21.461	3.476	1.00	44.16	I	C
ÁTOMO	613	C	PHE	I	95	49.687	18.134	-0.632	1.00	45.91	I	C
ÁTOMO	614	O	PHE	I	95	48.534	17.993	-0.083	1.00	45.21	I	O
ÁTOMO	615	N	VAL	I	96	49.843	18.547	-1.894	1.00	45.24	I	N
ÁTOMO	616	CA	VAL	I	96	48.730	19.096	-2.577	1.00	46.36	I	C
ÁTOMO	617	CB	VAL	I	96	49.099	19.856	-3.820	1.00	45.79	I	C
ÁTOMO	618	CG1	VAL	I	96	47.855	20.215	-4.467	1.00	47.08	I	C
ÁTOMO	619	CG2	VAL	I	96	49.696	21.210	-3.547	1.00	44.28	I	C
ÁTOMO	620	C	VAL	I	96	47.825	17.939	-2.988	1.00	47.34	I	C
ÁTOMO	621	O	VAL	I	96	46.517	18.044	-3.077	1.00	47.21	I	O
ÁTOMO	622	N	LYS	I	97	48.449	16.863	-3.353	1.00	49.09	I	N
ÁTOMO	623	CA	LYS	I	97	47.574	15.679	-3.793	1.00	51.55	I	C
ÁTOMO	624	CB	LYS	I	97	48.493	14.584	-4.189	1.00	54.17	I	C
ÁTOMO	625	CG	LYS	I	97	47.946	13.341	-4.887	1.00	60.40	I	C
ÁTOMO	626	CD	LYS	I	97	49.050	12.597	-6.011	1.00	62.67	I	C
ÁTOMO	627	CE	LYS	I	97	49.068	13.410	-7.468	1.00	66.05	I	C
ÁTOMO	628	NZ	LYS	I	97	50.343	13.646	-8.370	1.00	66.57	I	N
ÁTOMO	629	C	LYS	I	97	46.717	15.254	-2.591	1.00	51.16	I	C
ÁTOMO	630	O	LYS	I	97	45.447	15.000	-2.673	1.00	50.76	I	O
ÁTOMO	631	N	ASP	I	98	47.321	15.203	-1.392	1.00	52.09	I	N
ÁTOMO	632	CA	ASP	I	98	46.501	14.772	-0.216	1.00	52.20	I	C
ÁTOMO	633	CB	ASP	I	98	47.333	14.613	1.015	1.00	54.80	I	C
ÁTOMO	634	CG	ASP	I	98	48.374	13.440	0.980	1.00	59.19	I	C
ÁTOMO	635	OD1	ASP	I	98	49.308	13.489	1.921	1.00	61.38	I	O
ÁTOMO	636	OD2	ASP	I	98	48.382	12.502	0.119	1.00	61.58	I	O
ÁTOMO	637	C	ASP	I	98	45.449	15.883	0.089	1.00	51.39	I	C
ÁTOMO	638	O	ASP	I	98	44.352	15.575	0.548	1.00	51.71	I	O
ÁTOMO	639	N	LEU	I	99	45.774	17.198	-0.106	1.00	47.74	I	N
ÁTOMO	640	CA	LEU	I	99	44.840	18.251	0.339	1.00	47.45	I	C
ÁTOMO	641	CB	LEU	I	99	45.443	19.597	0.023	1.00	45.49	I	C
ÁTOMO	642	CG	LEU	I	99	44.829	20.833	0.627	1.00	44.89	I	C
ÁTOMO	643	CD1	LEU	I	99	45.245	22.154	-0.015	1.00	43.60	I	C
ÁTOMO	644	CD2	LEU	I	99	43.586	20.934	1.092	1.00	43.98	I	C

ÁTOMO	645	C	LEU	I	99	43.611	18.034	-0.533	1.00	46.93	I	C
ÁTOMO	646	O	LEU	I	99	42.468	18.230	-0.102	1.00	47.46	I	O
ÁTOMO	647	N	LEU	I	100	43.851	17.760	-1.794	1.00	45.76	I	N
ÁTOMO	648	CA	LEU	I	100	42.817	17.754	-2.807	1.00	44.53	I	C
ÁTOMO	649	CB	LEU	I	100	43.591	17.644	-4.248	1.00	43.55	I	C
ÁTOMO	650	CG	LEU	I	100	42.669	17.411	-5.353	1.00	43.64	I	C
ÁTOMO	651	CD1	LEU	I	100	41.718	18.519	-5.349	1.00	42.86	I	C
ÁTOMO	652	CD2	LEU	I	100	43.369	17.199	-6.753	1.00	40.11	I	C
ÁTOMO	653	C	LEU	I	100	41.890	16.646	-2.616	1.00	44.86	I	C
ÁTOMO	654	O	LEU	I	100	40.620	16.754	-2.540	1.00	45.24	I	O
ÁTOMO	655	N	LEU	I	101	42.441	15.498	-2.233	1.00	45.36	I	N
ÁTOMO	656	CA	LEU	I	101	41.532	14.416	-1.832	1.00	46.01	I	C
ÁTOMO	657	CB	LEU	I	101	42.304	13.119	-1.634	1.00	45.92	I	C
ÁTOMO	658	CG	LEU	I	101	42.851	12.537	-2.978	1.00	45.91	I	C
ÁTOMO	659	CD1	LEU	I	101	43.906	11.504	-2.808	1.00	46.51	I	C
ÁTOMO	660	CD2	LEU	I	101	41.696	11.862	-3.903	1.00	43.07	I	C
ÁTOMO	661	C	LEU	I	101	40.596	14.747	-0.682	1.00	46.66	I	C
ÁTOMO	662	O	LEU	I	101	39.288	14.481	-0.628	1.00	48.00	I	O
ÁTOMO	663	N	HIS	I	102	41.150	15.486	0.214	1.00	46.69	I	N
ÁTOMO	664	CA	HIS	I	102	40.320	15.789	1.334	1.00	48.31	I	C
ÁTOMO	665	CB	HIS	I	102	41.194	16.406	2.430	1.00	51.03	I	C
ÁTOMO	666	CG	HIS	I	102	40.434	16.774	3.641	1.00	51.82	I	C
ÁTOMO	667	CD2	HIS	I	102	40.061	17.963	4.107	1.00	53.23	I	C
ÁTOMO	668	ND1	HIS	I	102	40.122	15.873	4.610	1.00	53.12	I	N
ÁTOMO	669	CE1	HIS	I	102	39.380	16.456	5.518	1.00	54.50	I	C
ÁTOMO	670	NE2	HIS	I	102	39.373	17.741	5.260	1.00	56.06	I	N
ÁTOMO	671	C	HIS	I	102	39.281	16.813	0.903	1.00	48.41	I	C
ÁTOMO	672	O	HIS	I	102	38.102	16.806	1.343	1.00	46.87	I	O
ÁTOMO	673	N	LEU	I	103	39.724	17.763	0.094	1.00	48.47	I	N
ÁTOMO	674	CA	LEU	I	103	38.678	18.709	-0.307	1.00	49.56	I	C
ÁTOMO	675	CB	LEU	I	103	39.292	19.869	-1.094	1.00	48.48	I	C
ÁTOMO	676	CG	LEU	I	103	40.354	20.788	-0.467	1.00	49.09	I	C
ÁTOMO	677	CD1	LEU	I	103	41.044	21.809	-1.341	1.00	49.00	I	C
ÁTOMO	678	CD2	LEU	I	103	39.733	21.564	0.838	1.00	45.10	I	C
ÁTOMO	679	C	LEU	I	103	37.585	18.095	-1.176	1.00	50.10	I	C
ÁTOMO	680	O	LEU	I	103	36.461	18.432	-1.074	1.00	49.95	I	O
ÁTOMO	681	N	LYS	I	104	37.937	17.154	-2.005	1.00	50.85	I	N
ÁTOMO	682	CA	LYS	I	104	36.867	16.490	-2.802	1.00	50.86	I	C
ÁTOMO	683	CB	LYS	I	104	37.402	15.549	-3.797	1.00	49.12	I	C
ÁTOMO	684	CG	LYS	I	104	38.306	16.284	-4.777	1.00	48.40	I	C
ÁTOMO	685	CD	LYS	I	104	38.591	15.250	-5.921	1.00	47.57	I	C
ÁTOMO	686	CE	LYS	I	104	39.248	15.985	-7.140	1.00	48.88	I	C
ÁTOMO	687	NZ	LYS	I	104	39.306	15.204	-8.323	1.00	47.96	I	N
ÁTOMO	688	C	LYS	I	104	35.925	15.737	-1.861	1.00	50.92	I	C
ÁTOMO	689	O	LYS	I	104	34.706	15.596	-2.147	1.00	50.71	I	O
ÁTOMO	690	N	LYS	I	105	36.454	15.185	-0.819	1.00	52.08	I	N
ÁTOMO	691	CA	LYS	I	105	35.547	14.557	0.142	1.00	54.25	I	C
ÁTOMO	692	CB	LYS	I	105	36.263	13.771	1.148	1.00	56.55	I	C
ÁTOMO	693	CG	LYS	I	105	35.474	13.493	2.486	1.00	60.33	I	C
ÁTOMO	694	CD	LYS	I	105	36.344	13.038	3.615	1.00	63.22	I	C
ÁTOMO	695	CE	LYS	I	105	36.799	11.582	3.364	1.00	66.16	I	C
ÁTOMO	696	NZ	LYS	I	105	37.722	11.200	4.601	1.00	71.27	I	N
ÁTOMO	697	C	LYS	I	105	34.658	15.480	0.879	1.00	54.66	I	C
ÁTOMO	698	O	LYS	I	105	33.426	15.193	0.899	1.00	54.59	I	O
ÁTOMO	699	N	LEU	I	106	35.161	16.673	1.347	1.00	55.31	I	N
ÁTOMO	700	CA	LEU	I	106	34.246	17.681	1.925	1.00	55.19	I	C
ÁTOMO	701	CB	LEU	I	106	35.016	18.909	2.367	1.00	55.63	I	C
ÁTOMO	702	CG	LEU	I	106	36.158	18.689	3.345	1.00	56.60	I	C
ÁTOMO	703	CD1	LEU	I	106	36.737	20.087	3.680	1.00	56.04	I	C

ÁTOMO	704	CD2	LEU	I	106	35.581	18.001	4.446	1.00	56.80	I	C
ÁTOMO	705	C	LEU	I	106	33.206	18.130	0.944	1.00	55.25	I	C
ÁTOMO	706	O	LEU	I	106	32.049	18.328	1.266	1.00	53.51	I	O
ÁTOMO	707	N	PHE	I	107	33.576	18.256	-0.333	1.00	55.92	I	N
ÁTOMO	708	CA	PHE	I	107	32.581	18.731	-1.318	1.00	56.04	I	C
ÁTOMO	709	CB	PHE	I	107	33.229	18.776	-2.639	1.00	53.89	I	C
ÁTOMO	710	CG	PHE	I	107	32.373	19.340	-3.734	1.00	52.39	I	C
ÁTOMO	711	CD1	PHE	I	107	32.040	20.666	-3.816	1.00	52.13	I	C
ÁTOMO	712	CD2	PHE	I	107	31.786	18.487	-4.567	1.00	52.09	I	C
ÁTOMO	713	CE1	PHE	I	107	31.227	21.177	-4.966	1.00	53.21	I	C
ÁTOMO	714	CE2	PHE	I	107	30.982	18.929	-5.609	1.00	52.54	I	C
ÁTOMO	715	CZ	PHE	I	107	30.726	20.235	-5.871	1.00	51.78	I	C
ÁTOMO	716	C	PHE	I	107	31.505	17.720	-1.389	1.00	57.69	I	C
ÁTOMO	717	O	PHE	I	107	30.309	17.986	-1.382	1.00	57.18	I	O
ÁTOMO	718	N	ARG	I	108	31.891	16.490	-1.534	1.00	60.03	I	N
ÁTOMO	719	CA	ARG	I	108	30.881	15.511	-1.665	1.00	63.96	I	C
ÁTOMO	720	CB	ARG	I	108	31.608	14.199	-2.008	1.00	65.15	I	C
ÁTOMO	721	CG	ARG	I	108	30.754	12.873	-2.025	1.00	67.16	I	C
ÁTOMO	722	CD	ARG	I	108	31.667	11.584	-2.519	1.00	68.85	I	C
ÁTOMO	723	NE	ARG	I	108	32.695	11.003	-1.599	1.00	70.00	I	N
ÁTOMO	724	CZ	ARG	I	108	34.069	11.182	-1.590	1.00	70.81	I	C
ÁTOMO	725	NH1	ARG	I	108	34.757	11.989	-2.451	1.00	70.77	I	N
ÁTOMO	726	NH2	ARG	I	108	34.784	10.519	-0.653	1.00	70.34	I	N
ÁTOMO	727	C	ARG	I	108	29.994	15.439	-0.290	1.00	66.09	I	C
ÁTOMO	728	O	ARG	I	108	28.819	15.168	-0.358	1.00	66.77	I	O
ÁTOMO	729	N	GLU	I	109	30.524	15.646	0.926	1.00	68.31	I	N
ÁTOMO	730	CA	GLU	I	109	29.675	15.629	2.113	1.00	70.48	I	C
ÁTOMO	731	CB	GLU	I	109	30.552	15.413	3.334	1.00	72.41	I	C
ÁTOMO	732	CG	GLU	I	109	31.156	14.032	3.348	1.00	74.96	I	C
ÁTOMO	733	CD	GLU	I	109	32.329	13.680	4.311	1.00	77.15	I	C
ÁTOMO	734	OE1	GLU	I	109	32.637	12.428	4.269	1.00	77.91	I	0
ÁTOMO	735	OE2	GLU	I	109	32.937	14.563	5.045	1.00	78.45	I	O
ÁTOMO	736	C	GLU	I	109	28.905	16.948	2.276	1.00	71.26	I	C
ÁTOMO	737	O	GLU	I	109	28.156	17.047	3.145	1.00	72.42	I	O
ÁTOMO	738	N	GLY	I	110	29.031	17.967	1.442	1.00	71.47	I	N
ÁTOMO	739	CA	GLY	I	110	28.285	19.190	1.716	1.00	72.78	I	C
ÁTOMO	740	C	GLY	I	110	28.749	20.232	2.811	1.00	73.70	I	C
ÁTOMO	741	O	GLY	I	110	27.929	20.900	3.473	1.00	73.73	I	O
ÁTOMO	742	N	ARG	I	111	30.065	20.280	3.036	1.00	74.76	I	N
ÁTOMO	743	CA	ARG	I	111	30.802	21.114	3.976	1.00	75.92	I	C
ÁTOMO	744	CB	ARG	I	111	31.695	20.202	4.816	1.00	76.34	I	C
ÁTOMO	745	CG	ARG	I	111	30.977	18.919	5.233	1.00	77.70	I	C
ÁTOMO	746	CD	ARG	I	111	31.331	18.500	6.664	1.00	79.60	I	C
ÁTOMO	747	NE	ARG	I	111	32.505	17.621	6.665	1.00	80.80	I	N
ÁTOMO	748	CZ	ARG	I	111	33.534	17.966	7.461	1.00	81.19	I	C
ÁTOMO	749	NH1	ARG	I	111	33.458	19.050	8.214	1.00	80.98	I	N
ÁTOMO	750	NH2	ARG	I	111	34.641	17.219	7.470	1.00	81.56	I	N
ÁTOMO	751	C	ARG	I	111	31.650	22.165	3.253	1.00	76.69	I	C
ÁTOMO	752	O	ARG	I	111	32.822	21.971	2.955	1.00	75.67	I	O
ÁTOMO	753	N	PHE	I	112	30.996	23.297	2.931	1.00	78.04	I	N
ÁTOMO	754	CA	PHE	I	112	31.701	24.365	2.230	1.00	79.36	I	C
ÁTOMO	755	CB	PHE	I	112	30.682	25.138	1.392	1.00	79.30	I	C
ÁTOMO	756	CG	PHE	I	112	30.167	24.261	0.290	1.00	78.67	I	C
ÁTOMO	757	CD1	PHE	I	111	30.576	24.490	-1.018	1.00	78.26	I	C
ÁTOMO	758	CD2	PHE	I	112	29.326	23.201	0.586	1.00	78.46	I	C
ÁTOMO	759	CE1	PHE	I	112	30.147	23.643	-2.030	1.00	77.94	I	C
ÁTOMO	760	CE2	PHE	I	112	28.901	22.357	-0.435	1.00	79.06	I	C
ÁTOMO	761	CZ	PHE	I	112	29.311	22.571	-1.744	1.00	78.48	I	C
ÁTOMO	762	C	PHE	I	112	32.402	25.314	3.205	1.00	79.89	I	C
ÁTOMO	763	O	PHE	I	112	32.665	26.470	2.905	1.00	79.55	I	O
ÁTOMO	764	OXT	PHE	I	112	32.729	24.958	4.329	1.00	81.92	I	O

ÁTOMO	765	CB	PRO	R	33	77.296	6.508	12.091	1.00	109.80	R	C
ÁTOMO	766	CG	PRO	R	33	77.634	7.071	13.466	1.00	109.72	R	C
ÁTOMO	767	C	PRO	R	33	75.600	7.448	10.489	1.00	109.45	R	C
ÁTOMO	768	O	PRO	R	33	74.661	8.222	10.616	1.00	109.75	R	O
ÁTOMO	769	N	PRO	R	33	.76.843	8.883	12.021	1.00	109.73	R	N
ÁTOMO	770	CD	PRO	R	33	76.862	8.467	13.415	1.00	110.08	R	C
ÁTOMO	771	CA	PRO	R	33	76.935	7.688	11.188	1.00	109.68	R	C
ÁTOMO	772	N	PRO	R	34	75.508	6.367	9.699	1.00	108.90	R	N
ÁTOMO	773	CD	PRO	R	34	76.393	5.227	9.479	1.00	108.56	R	C
ÁTOMO	774	CA	PRO	R	34	74.287	6.191	8.965	1.00	108.17	R	C
ÁTOMO	775	CB	PRO	R	34	74.529	5.074	7.955	1.00	108.27	R	C
ÁTOMO	776	CG	PRO	R	34	75.702	4.241	8.433	1.00	108.37	R	C
ÁTOMO	777	C	PRO	R	34	73.222	5.747	9.912	1.00	107.50	R	C
ÁTOMO	778	O	PRO	R	34	73.082	6.166	11.048	1.00	107.84	R	O
ÁTOMO	779	N	VAL	R	35	72.413	4.851	9.403	1.00	106.22	R	N
ÁTOMO	780	CA	VAL	R	35	71.466	4.319	10.308	1.00	105.21	R	C
ÁTOMO	781	CB	VAL	R	35	70.057	4.467	9.738	1.00	105.03	R	C
ÁTOMO	782	CG1	VAL	R	35	70.119	5.236	8.419	1.00	104.78	R	C
ÁTOMO	783	CG2	VAL	R	35	69.432	3.095	9.498	1.00	105.97	R	C
ÁTOMO	784	C	VAL	R	35	71.756	2.861	10.581	1.00	104.36	R	C
ÁTOMO	785	O	VAL	R	35	72.155	2.089	9.684	1.00	104.20	R	O
ÁTOMO	786	N	THR	R	36	71.618	2.545	11.858	1.00	103.37	R	N
ÁTOMO	787	CA	THR	R	36	71.682	1.191	12.159	1.00	101.83	R	C
ÁTOMO	788	CB	THR	R	36	72.110	0.938	13.626	1.00	101.92	R	C
ÁTOMO	789	OG1	THR	R	36	73.534	0.821	13.586	1.00	102.34	R	O
ÁTOMO	790	CG2	THR	R	36	71.552	-0.439	14.041	1.00	101.87	R	C
ÁTOMO	791	C	THR	R	36	70.527	0.342	11.738	1.00	100.49	R	C
ÁTOMO	792	O	THR	R	36	69.352	0.681	11.806	1.00	100.30	R	O
ÁTOMO	793	N	ASN	R	37	71.068	-0.838	11.402	1.00	98.77	R	N
ÁTOMO	794	CA	ASN	R	37	70.689	-1.982	10.491	1.00	97.02	R	C
ÁTOMO	795	CB	ASN	R	37	69.950	-3.094	11.245	1.00	97.91	R	C
ÁTOMO	796	CG	ASN	R	37	69.677	-2.566	12.592	1.00	98.59	R	C
ÁTOMO	797	OD1	ASN	R	37	69.061	-1.530	12.693	1.00	99.04	R	O
ÁTOMO	798	ND2	ASN	R	37	70.269	-3.216	13.594	1.00	98.75	R	N
ÁTOMO	799	C	ASN	R	37	70.302	-1.704	9.042	1.00	95.59	R	C
ÁTOMO	800	O	ASN	R	37	71.128	-1.673	8.134	1.00	95.97	R	O
ÁTOMO	801	N	LEU	R	38	68.988	-1.564	8.942	1.00	92.71	R	N
ÁTOMO	802	CA	LEU	R	38	68.261	-1.183	7.691	1.00	89.88	R	C
ÁTOMO	803	CB	LEU	R	38	68.999	-0.241	6.719	1.00	89.18	R	C
ÁTOMO	804	CG	LEU	R	38	67.999	0.328	5.670	1.00	88.71	R	C
ÁTOMO	805	CD1	LEU	R	38	67.016	1.337	6.281	1.00	87.75	R	C
ÁTOMO	806	CD2	LEU	R	38	68.648	1.016	4.469	1.00	88.12	R	C
ÁTOMO	807	C	LEU	R	38	67.588	-2.346	6.945	1.00	88.31	R	C
ÁTOMO	808	O	LEU	R	38	68.101	-2.866	5.943	1.00	88.23	R	O
ÁTOMO	809	N	SER	R	39	66.424	-2.757	7.462	1.00	86.43	R	N
ÁTOMO	810	CA	SER	R	39	65.722	-3.927	6.933	1.00	85.04	R	C
ÁTOMO	811	CB	SER	R	39	65.446	-4.868	8.104	1.00	84.80	R	C
ÁTOMO	812	OG	SER	R	39	64.399	-4.315	8.906	1.00	84.68	R	O
ÁTOMO	813	C	SER	R	39	64.391	-3.565	6.246	1.00	83.83	R	C
ÁTOMO	814	O	SER	R	39	63.917	-2.438	6.301	1.00	83.04	R	O
ÁTOMO	815	N	VAL	R	40	63.820	-4.574	5.551	1.00	82.75	R	N
ÁTOMO	816	CA	VAL	R	40	62.586	-4.334	4.808	1.00	81.48	R	C
ÁTOMO	817	CB	VAL	R	40	62.951	-4.112	3.340	1.00	81.55	R	C
ÁTOMO	818	CG1	VAL	R	40	63.536	-5.391	2.743	1.00	81.22	R	C
ÁTOMO	819	CG2	VAL	R	40	61.713	-3.716	2.557	1.00	81.17	R	C
ÁTOMO	820	C	VAL	R	40	61.596	-5.496	4.936	1.00	80.97	R	C
ÁTOMO	821	O	VAL	R	40	61.958	-6.656	5.078	1.00	8	R	O
ÁTOMO	822	N	SER	R	41	60.299	-5.134	4.913	1.00	80.39	R	N
ÁTOMO	823	CA	SER	R	41	59.257	-6.146	5.056	1.00	79.03	R	C
ÁTOMO	824	CB	SER	R	41	58.695	-6.038	6.476	1.00	79.25	R	C

ATOMO	825	OG	SER	R	41	57.871	-7.172	6.744	1.00	80.21	R	O
ATOMO	826	C	SER	R	41	58.139	-5.936	4.032	1.00	78.20	R	C
ATOMO	827	O	SER	R	41	58.133	-4.987	3.260	1.00	78.12	R	O
ATOMO	828	N	VAL	R	42	57.188	-6.889	4.011	1.00	77.02	R	N
ATOMO	829	CA	VAL	R	42	56.044	-6.727	3.122	1.00	75.75	R	C
ATOMO	830	CB	VAL	R	42	56.345	-7.421	1.793	1.00	75.63	R	C
ATOMO	831	CG1	VAL	R	42	55.040	-7.685	1.042	1.00	74.23	R	C
ATOMO	832	CG2	VAL	R	42	57.239	-6.540	0.940	1.00	75.00	R	C
ATOMO	833	C	VAL	R	42	54.757	-7.294	3.725	1.00	75.25	R	C
ATOMO	834	O	VAL	R	42	54.456	-8.476	3.634	1.00	76.26	R	O
ATOMO	835	N	GLU	R	43	54.009	-6.404	4.401	1.00	74.69	R	N
ATOMO	836	CA	GLU	R	43	52.690	-6.791	4.879	1.00	74.33	R	C
ATOMO	837	CB	GLU	R	43	52.364	-5.955	6.118	1.00	74.91	R	C
ATOMO	838	CG	GLU	R	43	53.535	-5.884	7.101	1.00	76.67	R	C
ATOMO	839	CD	GLU	R	43	53.105	-5.130	8.339	1.00	78.12	R	C
ATOMO	840	OE1	GLU	R	43	52.040	-4.530	8.320	1.00	78.66	R	O
ATOMO	841	OE2	GLU	R	43	53.849	-5.147	9.319	1.00	78.91	R	O
ATOMO	842	C	GLU	R	43	51.628	-6.569	3.802	1.00	73.28	R	C
ATOMO	843	O	GLU	R	43	51.886	-6.038	2.730	1.00	72.01	R	O
ATOMO	844	N	ASN	R	44	50.404	-7.036	4.102	1.00	73.87	R	N
ATOMO	845	CA	ASN	R	44	49.329	-6.870	3.133	1.00	73.91	R	C
ATOMO	846	CB	ASN	R	44	49.105	-5.371	2.930	1.00	74.10	R	C
ATOMO	847	CG	ASN	R	44	48.598	-4.762	4.211	1.00	73.66	R	C
ATOMO	848	OD1	ASN	R	44	48.998	-3.674	4.615	1.00	73.71	R	O
ATOMO	849	ND2	ASN	R	44	47.676	-5.493	4.861	1.00	72.65	R	N
ATOMO	850	C	ASN	R	44	49.681	-7.528	1.798	1.00	74.25	R	C
ATOMO	851	O	ASN	R	44	50.000	-8.706	1.712	1.00	74.82	R	O
ATOMO	852	N	LEU	R	45	49.577	-6.724	0.725	1.00	74.52	R	N
ATOMO	853	CA	LEU	R	45	49.894	-7.249	-0.598	1.00	73.93	R	C
ATOMO	854	CB	LEU	R	45	48.630	-7.177	-1.455	1.00	75.60	R	C
ATOMO	855	CG	LEU	R	45	48.034	-8.558	-1.742	1.00	77.31	R	C
ATOMO	856	CD1	LEU	R	45	46.992	-8.520	-2.860	1.00	76.95	R	C
ATOMO	857	CD2	LEU	R	45	49.086	-9.581	-2.172	1.00	77.38	R	C
ATOMO	858	C	LEU	R	45	51.020	-6.452	-1.261	1.00	73.85	R	C
ATOMO	859	O	LEU	R	45	51.867	-6.982	-1.968	1.00	73.55	R	O
ATOMO	860	N	CYS	R	46	50.984	-5.124	-1.041	1.00	73.09	R	N
ATOMO	861	CA	CYS	R	46	52.004	-4.267	-1.633	1.00	72.73	R	C
ATOMO	862	CB	CYS	R	46	51.354	-3.448	-2.750	1.00	73.79	R	C
ATOMO	863	SG	CYS	R	46	50.633	-4.496	-4.034	1.00	79.48	R	S
ATOMO	864	C	CYS	R	46	52.629	-3.335	-0.593	1.00	71.57	R	C
ATOMO	865	O	CYS	R	46	53.638	-2.680	-0.821	1.00	71.95	R	O
ATOMO	866	N	THR	R	47	51.964	-3.262	0.575	1.00	70.15	R	N
ATOMO	867	CA	THR	R	47	52.489	-2.429	1.650	1.00	69.21	R	C
ATOMO	868	CB	THR	R	47	51.529	-2.523	2.836	1.00	69.25	R	C
ATOMO	869	OG1	THR	R	47	50.203	-2.240	2.387	1.00	69.24	R	O
ATOMO	870	CG2	THR	R	47	51.918	-1.501	3.909	1.00	68.49	R	C
ATOMO	871	C	THR	R	47	53.886	-2.880	2.078	1.00	68.94	R	C
ATOMO	872	O	THR	R	47	54.063	-3.827	2.834	1.00	69.53	R	O
ATOMO	873	N	VAL	R	48	54.903	-2.190	1.526	1.00	68.05	R	N
ATOMO	874	CA	VAL	R	48	56.280	-2.524	1.874	1.00	68.58	R	C
ATOMO	875	CB	VAL	R	48	57.128	-2.444	0.603	1.00	67.24	R	C
ATOMO	876	CG1	VAL	R	48	56.460	-1.520	-0.415	1.00	69.11	R	C
ATOMO	877	CG2	VAL	R	48	58.510	-1.913	0.930	1.00	67.36	R	C
ATOMO	878	C	VAL	R	48	56.831	-1.570	2.939	1.00	68.62	R	C
ATOMO	879	O	VAL	R	48	56.755	-0.354	2.828	1.00	69.25	R	O
ATOMO	880	N	ILE	R	49	57.366	-2.165	4.020	1.00	69.02	R	N
ATOMO	881	CA	ILE	R	49	57.817	-1.346	5.141	1.00	68.84	R	C
ATOMO	882	CB	ILE	R	49	57.145	-1.876	6.407	1.00	68.78	R	C
ATOMO	883	CG2	ILE	R	49	57.520	-0.994	7.611	1.00	68.35	R	C
ATOMO	884	CG1	ILE	R	49	55.621	-1.837	6.253	1.00	68.17	R	C
ATOMO	885	CD1	ILE	R	49	54.895	-2.073	7.578	1.00	70.58	R	C
ATOMO	886	C	ILE	R	49	59.340	-1.378	5.303	1.00	68.46	R	C
ATOMO	887	O	ILE	R	49	59.988	-2.402	5.128	1.00	69.77	R	O
ATOMO	888	N	TRP	R	50	59.880	-0.181	5.604	1.00	67.57	R	N
ATOMO	889	CA	TRP	R	50	61.301	-0.080	5.915	1.00	67.76	R	C
ATOMO	890	CB	TRP	R	50	61.923	1.007	5.035	1.00	65.27	R	C
ATOMO	891	CG	TRP	R	50	62.451	0.431	3.778	1.00	63.09	R	C
ATOMO	892	CD2	TRP	R	50	61.786	0.431	2.493	1.00	62.66	R	C

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ÁTOMO	893	CE2	TRP	R	50	62.701	-0.093	1.546	1.00	62.24	R	C
ÁTOMO	894	CE3	TRP	R	50	60.515	0.815	2.077	1.00	61.27	R	C
ÁTOMO	895	CD1	TRP	R	50	63.743	-0.102	3.562	1.00	63.41	R	C
ÁTOMO	896	NE1	TRP	R	50	63.958	-0.433	2.260	1.00	61.66	R	N
ÁTOMO	897	CZ2	TRP	R	50	62.320	-0.227	0.220	1.00	62.59	R	C
ÁTOMO	898	CZ3	TRP	R	50	60.133	0.678	0.754	1.00	61.70	R	C
ÁTOMO	899	CH2	TRP	R	50	61.045	0.158	-0.182	1.00	63.14	R	C
ÁTOMO	900	C	TRP	R	50	61.514	0.280	7.383	1.00	69.60	R	C
ÁTOMO	901	O	TRP	R	50	60.901	1.187	7.933	1.00	71.18	R	O
ÁTOMO	902	N	THR	R	51	62.395	-0.499	8.030	1.00	71.70	R	N
ÁTOMO	903	CA	THR	R	51	62.717	-0.217	9.414	1.00	73.55	R	C
ÁTOMO	904	CB	THR	R	51	62.099	-1.313	10.283	1.00	72.56	R	C
ÁTOMO	905	OG1	THR	R	51	62.465	-2.591	9.761	1.00	72.81	R	O
ÁTOMO	906	CG2	THR	R	51	60.571	-1.190	10.271	1.00	72.22	R	C
ÁTOMO	907	C	THR	R	51	64.221	-0.181	9.612	1.00	75.37	R	C
ÁTOMO	908	O	THR	R	51	64.995	-0.852	8.937	1.00	75.38	R	O
ÁTOMO	909	N	TRP	R	52	64.635	0.683	10.543	1.00	77.41	R	N
ÁTOMO	910	CA	TRP	R	52	66.052	0.795	10.814	1.00	79.26	R	C
ÁTOMO	911	CB	TRP	R	52	66.668	1.724	9.758	1.00	79.75	R	C
ÁTOMO	912	CG	TRP	R	52	66.114	3.093	9.875	1.00	80.89	R	C
ÁTOMO	913	CD2	TRP	R	52	65.067	3.675	9.057	1.00	81.56	R	C
ÁTOMO	914	CE2	TRP	R	52	64.989	5.051	9.392	1.00	81.99	R	C
ÁTOMO	915	CE3	TRP	R	52	64.192	3.155	8.106	1.00	81.29	R	C
ÁTOMO	916	CD1	TRP	R	52	66.624	4.141	10.674	1.00	81.45	R	C
ÁTOMO	917	NE1	TRP	R	52	66.009	5.331	10.431	1.00	81.21	R	N
ÁTOMO	918	CZ2	TRP	R	52	64.052	5.864	8.772	1.00	81.96	R	C
ÁTOMO	919	CZ3	TRP	R	52	63.255	3.967	7.488	1.00	81.08	R	C
ÁTOMO	920	CH2	TRP	R	52	63.183	5.329	7.828	1.00	81.26	R	C
ÁTOMO	921	C	TRP	R	52	66.293	1.345	12.208	1.00	80.42	R	C
ÁTOMO	922	O	TRP	R	52	65.384	1.531	13.007	1.00	79.43	R	O
ÁTOMO	923	N	ASN	R	53	67.563	1.568	12.523	1.00	82.95	R	N
ÁTOMO	924	CA	ASN	R	53	67.829	2.105	13.838	1.00	85.26	R	C
ÁTOMO	925	CB	ASN	R	53	68.545	1.040	14.660	1.00	86.57	R	C
ÁTOMO	926	CG	ASN	R	53	67.526	0.038	15.127	1.00	88.41	R	C
ÁTOMO	927	OD1	ASN	R	53	66.721	0.304	16.014	1.00	89.46	R	O
ÁTOMO	928	ND2	ASN	R	53	67.493	-1.103	14.423	1.00	88.47	R	N
ÁTOMO	929	C	ASN	R	53	68.657	3.371	13.780	1.00	85.99	R	C
ÁTOMO	930	O	ASN	R	53	69.353	3.661	12.814	1.00	84.91	R	O
ÁTOMO	931	N	PRO	R	54	68.513	4.161	14.854	1.00	87.46	R	N
ÁTOMO	932	CD	PRO	R	54	67.558	4.031	15.939	1.00	87.13	R	C
ÁTOMO	933	CA	PRO	R	54	69.367	5.306	15.068	1.00	88.96	R	C
ÁTOMO	934	CB	PRO	R	54	69.022	5.900	16.433	1.00	88.51	R	C
ÁTOMO	935	CG	PRO	R	54	67.670	5.336	16.857	1.00	87.81	R	C
ÁTOMO	936	C	PRO	R	54	70.837	4.875	15.020	1.00	91.16	R	C
ÁTOMO	937	O	PRO	R	54	71.225	3.786	15.408	1.00	91.95	R	O
ÁTOMO	938	N	PRO	R	55	71.659	5.767	14.471	1.00	92.77	R	N
ÁTOMO	939	CD	PRO	R	55	71.358	7.124	14.076	1.00	92.90	R	C
ÁTOMO	940	CA	PRO	R	55	73.060	5.474	14.196	1.00	94.38	R	C
ÁTOMO	941	CB	PRO	R	55	73.751	6.798	13.888	1.00	93.93	R	C
ÁTOMO	942	CG	PRO	R	55	72.739	7.924	14.112	1.00	93.32	R	C
ÁTOMO	943	C	PRO	R	55	73.761	4.774	15.365	1.00	96.19	R	C
ÁTOMO	944	O	PRO	R	55	73.823	5.288	16.474	1.00	96.51	R	O
ÁTOMO	945	N	CYS	R	62	71.151	15.108	19.860	1.00	97.98	R	N
ÁTOMO	946	CA	CYS	R	62	70.420	15.510	18.664	1.00	99.92	R	C
ÁTOMO	947	C	CYS	R	62	69.057	14.816	18.581	1.00	100.12	R	C
ÁTOMO	948	O	CYS	R	62	68.951	13.597	18.581	1.00	100.53	R	O
ÁTOMO	949	CB	CYS	R	62	71.268	15.154	17.437	1.00	100.74	R	C
ÁTOMO	950	SG	CYS	R	62	72.172	16.581	16.783	1.00	104.16	R	S
ÁTOMO	951	N	SER	R	63	68.001	15.643	18.514	1.00	100.26	R	N
ÁTOMO	952	CA	SER	R	63	66.749	15.214	17.866	1.00	100.59	R	C

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ÁTOMO	953	CB	SER	R	63	65.737	16.344	18.003	1.00	100.76	R	C
ÁTOMO	954	OG	SER	R	63	65.282	16.394	19.352	1.00	100.96	R	O
ÁTOMO	955	C	SER	R	63	66.932	14.883	16.379	1.00	100.67	R	C
ÁTOMO	956	O	SER	R	63	67.014	15.751	15.524	1.00	101.08	R	O
ÁTOMO	957	N	LEU	R	64	66.995	13.572	16.071	1.00	100.07	R	N
ÁTOMO	958	CA	LEU	R	64	67.207	13.155	14.689	1.00	99.22	R	C
ÁTOMO	959	CB	LEU	R	64	67.502	11.646	14.686	1.00	99.84	R	C
ÁTOMO	960	CG	LEU	R	64	68.992	11.275	14.695	1.00	100.27	R	C
ÁTOMO	961	CD1	LEU	R	64	69.877	12.258	13.922	1.00	100.39	R	C
ÁTOMO	962	CD2	LEU	R	64	69.562	11.217	16.105	1.00	99.98	R	C
ÁTOMO	963	C	LEU	R	64	65.974	13.412	13.822	1.00	98.40	R	C
ÁTOMO	964	O	LEU	R	64	64.833	13.273	14.243	1.00	98.87	R	O
ÁTOMO	965	N	TRP	R	65	66.237	13.854	12.578	1.00	97.03	R	N
ÁTOMO	966	CA	TRP	R	65	65.271	13.627	11.509	1.00	95.83	R	C
ÁTOMO	967	CB	TRP	R	65	64.793	14.956	10.924	1.00	96.96	R	C
ÁTOMO	968	CG	TRP	R	65	63.709	15.532	11.742	1.00	97.91	R	C
ÁTOMO	969	CD2	TRP	R	65	63.886	16.344	12.919	1.00	98.91	R	C
ÁTOMO	970	CE2	TRP	R	65	62.596	16.735	13.354	1.00	99.15	R	C
ÁTOMO	971	CE3	TRP	R	65	65.008	16.789	13.604	1.00	99.85	R	C
ÁTOMO	972	CD1	TRP	R	65	62.321	15.447	11.506	1.00	98.14	R	C
ÁTOMO	973	NE1	TRP	R	65	61.599	16.123	12.438	1.00	98.55	R	N
ÁTOMO	974	CZ2	TRP	R	65	62.463	17.571	14.454	1.00	99.73	R	C
ÁTOMO	975	CZ3	TRP	R	65	64.878	17.618	14.704	1.00	100.22	R	C
ÁTOMO	976	CH2	TRP	R	65	63.596	18.021	15.124	1.00	100.03	R	C
ÁTOMO	977	C	TRP	R	65	65.918	12.807	10.401	1.00	93.89	R	C
ÁTOMO	978	O	TRP	R	65	67.010	13.086	9.927	1.00	93.86	R	O
ÁTOMO	979	N	TYR	R	66	65.219	11.735	10.013	1.00	91.56	R	N
ÁTOMO	980	CA	TYR	R	66	65.711	10.896	8.942	1.00	89.74	R	C
ÁTOMO	981	CB	TYR	R	66	65.255	9.461	9.198	1.00	89.58	R	C
ÁTOMO	982	CG	TYR	R	66	65.678	9.052	10.571	1.00	89.53	R	C
ÁTOMO	983	CD1	TYR	R	66	64.721	8.814	11.553	1.00	89.38	R	C
ÁTOMO	984	CE1	TYR	R	66	65.108	8.450	12.831	1.00	89.14	R	C
ÁTOMO	985	CD2	TYR	R	66	67.034	8.931	10.887	1.00	-89.34	R	C
ÁTOMO	986	CE2	TYR	R	66	67.423	8.576	12.169	1.00	89.67	R	C
ÁTOMO	987	CZ	TYR	R	66	66.465	8.343	13.139	1.00	89.51	R	C
ÁTOMO	988	OH	TYR	R	66	66.843	8.009	14.424	1.00	88.93	R	O
ÁTOMO	989	C	TYR	R	66	65.211	11.378	7.577	1.00	88.13	R	C
ÁTOMO	990	O	TYR	R	66	64.039	11.673	7.369	1.00	87.44	R	O
ÁTOMO	991	N	PHE	R	67	66.168	11.526	6.644	1.00	87.17	R	N
ÁTOMO	992	CA	PHE	R	67	65.773	11.892	5.291	1.00	86.53	R	C
ÁTOMO	993	CB	PHE	R	67	66.753	12.949	4.779	1.00	87.70	R	C
ÁTOMO	994	CG	PHE	R	67	67.092	13.919	5.872	1.00	89.87	R	C
ÁTOMO	995	CD1	PHE	R	67	68.425	14.185	6.150	1.00	90.91	R	C
ÁTOMO	996	CD2	PHE	R	67	66.089	14.643	6.492	1.00	90.84	R	C
ÁTOMO	997	CE1	PHE	R	67	68.756	15.197	7.037	1.00	90.97	R	C
ÁTOMO	998	CE2	PHE	R	67	66.426	15.660	7.381	1.00	91.55	R	C
ÁTOMO	999	CZ	PHE	R	67	67.760	15.945	7.653	1.00	90.84	R	C
ÁTOMO	1000	C	PHE	R	67	65.810	10.660	4.373	1.00	85.67	R	C
ÁTOMO	1001	O	PHE	R	67	66.804	9.959	4.298	1.00	85.43	R	O
ÁTOMO	1002	N	SER	R	68	64.677	10.389	3.691	1.00	84.85	R	N
ÁTOMO	1003	CA	SER	R	68	64.632	9.172	2.883	1.00	84.40	R	C
ÁTOMO	1004	CB	SER	R	68	63.905	8.097	3.686	1.00	83.55	R	C
ÁTOMO	1005	OG	SER	R	68	62.503	8.380	3.682	1.00	81.92	R	O
ÁTOMO	1006	C	SER	R	68	63.983	9.341	1.491	1.00	84.96	R	C
ÁTOMO	1007	O	SER	R	68	63.129	10.181	1.265	1.00	84.40	R	O
ÁTOMO	1008	N	HIS	R	69	64.445	8.481	0.525	1.00	86.02	R	N
ÁTOMO	1009	CA	HIS	R	69	63.828	8.461	-0.821	1.00	87.66	R	C
ÁTOMO	1010	CB	HIS	R	69	64.392	9.619	-1.656	1.00	86.85	R	C
ÁTOMO	1011	CG	HIS	R	69	65.902	9.628	-1.623	1.00	87.47	R	C
ÁTOMO	1012	CD2	HIS	R	69	66.787	9.563	-2.709	1.00	87.58	R	C
ÁTOMO	1013	ND1	HIS	R	69	66.610	9.974	-0.520	1.00	87.25	R	N
ÁTOMO	1014	CE1	HIS	R	69	67.883	10.130	-0.934	1.00	87.23	R	C
ÁTOMO	1015	NE2	HIS	R	69	68.019	9.890	-2.239	1.00	87.47	R	N
ÁTOMO	1016	C	HIS	R	69	64.012	7.121	-1.574	1.00	88.70	R	C
ÁTOMO	1017	O	HIS	R	69	64.850	6.294	-1.242	1.00	88.93	R	O
ÁTOMO	1018	N	PHE	R	70	63.154	6.910	-2.611	1.00	90.78	R	N
ÁTOMO	1019	CA	PHE	R	70	63.222	5.648	-3.369	1.00	92.92	R	C

ATOMO	1020	CB	PHE	R	70	62.323	5.737	-4.605	1.00	93.71	R	C
ATOMO	1021	CG	PHE	R	70	60.965	5.207	-4.259	1.00	95.17	R	C
ATOMO	1022	CD1	PHE	R	70	60.568	5.203	-2.929	1.00	95.74	R	C
ATOMO	1023	CD2	PHE	R	70	60.045	4.949	-5.264	1.00	96.23	R	C
ATOMO	1024	CE1	PHE	R	70	59.237	4.992	-2.605	1.00	97.29	R	C
ATOMO	1025	CE2	PHE	R	70	58.710	4.738	-4.930	1.00	96.90	R	C
ATOMO	1026	CZ	PHE	R	70	58.300	4.771	-3.603	1.00	97.37	R	C
ATOMO	1027	C	PHE	R	70	64.654	5.310	-3.771	1.00	94.26	R	C
ATOMO	1028	O	PHE	R	70	65.224	4.313	-3.375	1.00	95.64	R	O
ATOMO	1029	N	GLY	R	71	65.237	6.162	-4.615	1.00	94.58	R	N
ATOMO	1030	CA	GLY	R	71	66.672	6.058	-4.768	1.00	95.51	R	C
ATOMO	1031	C	GLY	R	71	67.219	7.024	-5.802	1.00	95.90	R	C
ATOMO	1032	O	GLY	R	71	68.398	7.131	-6.054	1.00	96.57	R	O
ATOMO	1033	N	ASP	R	72	66.304	7.682	-6.464	1.00	95.39	R	N
ATOMO	1034	CA	ASP	R	72	66.687	8.452	-7.620	1.00	94.78	R	C
ATOMO	1035	CB	ASP	R	72	66.031	7.782	-8.819	1.00	95.03	R	C
ATOMO	1036	CG	ASP	R	72	64.672	7.271	-8.383	1.00	95.22	R	C
ATOMO	1037	OD1	ASP	R	72	64.558	6.067	-8.149	1.00	95.40	R	O
ATOMO	1038	OD2	ASP	R	72	63.782	8.089	-8.174	1.00	95.61	R	O
ATOMO	1039	C	ASP	R	72	66.169	9.821	-7.374	1.00	94.54	R	C
ATOMO	1040	O	ASP	R	72	66.092	10.692	-8.226	1.00	94.60	R	O
ATOMO	1041	N	LYS	R	73	65.708	9.868	-6.120	1.00	93.66	R	N
ATOMO	1042	CA	LYS	R	73	65.465	11.089	-5.397	1.00	92.22	R	C
ATOMO	1043	CB	LYS	R	73	66.404	12.182	-5.890	1.00	92.75	R	C
ATOMO	1044	CG	LYS	R	73	67.506	12.424	-4.860	1.00	93.40	R	C
ATOMO	1045	CD	LYS	R	73	67.357	13.763	-4.135	1.00	93.68	R	C
ATOMO	1046	CE	LYS	R	73	68.037	13.777	-2.762	1.00	93.89	R	C
ATOMO	1047	NZ	LYS	R	73	69.488	13.668	-2.911	1.00	92.82	R	N
ATOMO	1048	C	LYS	R	73	64.001	11.473	-5.442	1.00	90.85	R	C
ATOMO	1049	O	LYS	R	73	63.600	12.621	-5.317	1.00	90.69	R	O
ATOMO	1050	N	GLN	R	74	63.228	10.393	-5.600	1.00	89.30	R	N
ATOMO	1051	CA	GLN	R	74	61.805	10.441	-5.868	1.00	87.34	R	C
ATOMO	1052	CB	GLN	R	74	61.606	9.323	-6.899	1.00	88.25	R	C
ATOMO	1053	CG	GLN	R	74	60.377	9.479	-7.787	1.00	89.67	R	C
ATOMO	1054	CD	GLN	R	74	60.643	8.798	-9.116	1.00	91.54	R	C
ATOMO	1055	OE1	GLN	R	74	61.026	9.404	-10.103	1.00	92.95	R	O
ATOMO	1056	NE2	GLN	R	74	60.357	7.480	-9.127	1.00	91.90	R	N
ATOMO	1057	C	GLN	R	74	61.033	10.092	-4.588	1.00	85.48	R	C
ATOMO	1058	O	GLN	R	74	61.214	9.035	-4.000	1.00	85.72	R	O
ATOMO	1059	N	ASP	R	75	60.185	11.039	-4.128	1.00	83.23	R	N
ATOMO	1060	CA	ASP	R	75	59.332	10.746	-2.983	1.00	80.16	R	C
ATOMO	1061	CB	ASP	R	75	58.981	9.261	-3.011	1.00	82.21	R	C
ATOMO	1062	CG	ASP	R	75	57.502	9.096	-3.338	1.00	84.28	R	C
ATOMO	1063	OD1	ASP	R	75	57.164	9.141	-4.521	1.00	85.14	R	O
ATOMO	1064	OD2	ASP	R	75	56.720	8.862	-2.420	1.00	84.69	R	O
ATOMO	1065	C	ASP	R	75	60.041	11.078	-1.661	1.00	77.76	R	C
ATOMO	1066	O	ASP	R	75	60.008	10.338	-0.685	1.00	76.11	R	O
ATOMO	1067	N	LYS	R	76	60.715	12.247	-1.666	1.00	75.72	R	N
ATOMO	1068	CA	LYS	R	76	61.444	12.689	-0.481	1.00	73.28	R	C
ATOMO	1069	CB	LYS	R	76	62.046	14.065	-0.791	1.00	73.94	R	C
ATOMO	1070	CG	LYS	R	76	63.136	14.004	-1.863	1.00	73.68	R	C
ATOMO	1071	CD	LYS	R	76	63.971	15.285	-1.911	1.00	73.77	R	C
ATOMO	1072	CE	LYS	R	76	63.143	16.510	-2.309	1.00	74.55	R	C
ATOMO	1073	NZ	LYS	R	76	62.828	16.449	-3.735	1.00	75.61	R	N
ATOMO	1074	C	LYS	R	76	60.526	12.788	0.730	1.00	72.29	R	C
ATOMO	1075	O	LYS	R	76	59.350	13.111	0.637	1.00	71.88	R	O
ATOMO	1076	N	LYS	R	77	61.096	12.452	1.902	1.00	70.63	R	N
ATOMO	1077	CA	LYS	R	77	60.330	12.588	3.133	1.00	69.48	R	C
ATOMO	1078	CB	LYS	R	77	59.496	11.319	3.333	1.00	67.92	R	C
ATOMO	1079	CG	LYS	R	77	58.863	11.259	4.727	1.00	67.24	R	C
ATOMO	1080	CD	LYS	R	77	57.814	10.153	4.846	1.00	66.40	R	C
ATOMO	1081	CE	LYS	R	77	56.879	10.358	6.044	1.00	66.77	R	C
ATOMO	1082	NZ	LYS	R	77	55.637	9.616	5.830	1.00	67.40	R	N
ATOMO	1083	C	LYS	R	77	61.247	12.796	4.340	1.00	69.93	R	C
ATOMO	1084	O	LYS	R	77	62.297	12.187	4.479	1.00	70.78	R	O
ATOMO	1085	N	ILE	R	78	60.836	13.727	5.215	1.00	69.90	R	N

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ÁTOMO	1086	CA	ILE	R	78	61.586	13.920	6.450	1.00	69.23	R	C
ÁTOMO	1087	CB	ILE	R	78	62.195	15.319	6.435	1.00	70.19	R	C
ÁTOMO	1088	CG2	ILE	R	78	63.156	15.475	7.627	1.00	70.90	R	C
ÁTOMO	1089	CG1	ILE	R	78	63.001	15.527	5.152	1.00	70.70	R	C
ÁTOMO	1090	CD1	ILE	R	78	63.489	16.969	5.006	1.00	68.74	R	C
ÁTOMO	1091	C	ILE	R	78	60.694	13.746	7.680	1.00	68.68	R	C
ÁTOMO	1092	O	ILE	R	78	59.701	14.435	7.869	1.00	67.88	R	O
ÁTOMO	1093	N	ALA	R	79	61.060	12.756	8.517	1.00	68.91	R	N
ÁTOMO	1094	CA	ALA	R	79	60.281	12.512	9.724	1.00	69.16	R	C
ÁTOMO	1095	CB	ALA	R	79	59.107	11.601	9.360	1.00	68.88	R	C
ÁTOMO	1096	C	ALA	R	79	61.129	11.860	10.819	1.00	70.08	R	C
ÁTOMO	1097	O	ALA	R	79	62.184	11.289	10.576	1.00	69.58	R	O
ÁTOMO	1098	N	PRO	R	80	60.650	11.997	12.070	1.00	70.73	R	N
ÁTOMO	1099	CD	PRO	R	80	59.418	12.638	12.493	1.00	70.72	R	C
ÁTOMO	1100	CA	PRO	R	80	61.365	11.478	13.228	1.00	71.37	R	C
ÁTOMO	1101	CB	PRO	R	80	60.674	12.013	14.482	1.00	71.34	R	C
ÁTOMO	1102	CG	PRO	R	80	59.556	12.963	14.052	1.00	71.52	R	C
ÁTOMO	1103	C	PRO	R	80	61.366	9.949	13.255	1.00	71.72	R	C
ÁTOMO	1104	O	PRO	R	80	62.344	9.298	13.601	1.00	71.37	R	O
ÁTOMO	1105	N	GLU	R	81	60.199	9.3.77	12.912	1.00	71.96	R	N
ÁTOMO	1106	CA	GLU	R	81	60.060	7.929	12.972	1.00	71.89	R	C
ÁTOMO	1107	CB	GLU	R	81	58.701	7.554	12.380	1.00	71.77	R	C
ÁTOMO	1108	C	GLU	R	81	61.171	7.213	12.203	1.00	72.33	R	C
ÁTOMO	1109	O	GLU	R	81	61.605	7.627	11.135	1.00	72.11	R	O
ÁTOMO	1110	N	THR	R	82	61.668	6.121	12.812	1.00	73.39	R	N
ÁTOMO	1111	CA	THR	R	82	62.630	5.283	12.109	1.00	74.33	R	C
ÁTOMO	1112	CB	THR	R	82	63.531	4.607	13.136	1.00	75.38	R	C
ÁTOMO	1113	OG1	THR	R	82	62.729	3.844	14.038	1.00	76.17	R	O
ÁTOMO	1114	CG2	THR	R	82	64.298	5.669	13.929	1.00	75.33	R	C
ÁTOMO	1115	C	THR	R	82	61.892	4.218	11.297	1.00	73.70	R	C
ÁTOMO	1116	O	THR	R	82	62.164	3.028	11.357	1.00	73.82	R	O
ÁTOMO	1117	N	ARG	R	83	60.895	4.714	10.537	1.00	73.78	R	N
ÁTOMO	1118	CA	ARG	R	83	59.978	3.835	9.819	1.00	73.66	R	C
ÁTOMO	1119	CB	ARG	R	83	58.786	3.593	10.749	1.00	74.64	R	C
ÁTOMO	1120	CG	ARG	R	83	58.272	2.154	10.702	1.00	76.22	R	C
ÁTOMO	1121	CD	ARG	R	83	57.196	1.978	9.629	1.00	78.40	R	C
ÁTOMO	1122	NE	ARG	R	83	55.847	1.899	10.201	1.00	79.66	R	N
ÁTOMO	1123	CZ	ARG	R	83	54.934	2.805	9.789	1.00	80.93	R	C
ÁTOMO	1124	NH1	ARG	R	83	55.312	3.854	9.074	1.00	80.54	R	N
ÁTOMO	1125	NH2	ARG	R	83	53.636	2.491	9.860	1.00	80.52	R	N
ÁTOMO	1126	C	ARG	R	83	59.488	4.525	8.542	1.00	72.68	R	C
ÁTOMO	1127	O	ARG	R	83	59.068	5.673	8.542	1.00	72.88	R	O
ÁTOMO	1128	N	ARG	R	84	59.598	3.805	7.411	1.00	70.90	R	N
ÁTOMO	1129	CA	ARG	R	84	59.031	4.353	6.185	1.00	69.83	R	C
ÁTOMO	1130	CB	ARG	R	84	60.154	4.823	5.262	1.00	69.23	R	C
ÁTOMO	1131	CG	ARG	R	84	59.604	5.431	3.970	1.00	68.67	R	C
ÁTOMO	1132	CD	ARG	R	84	59.507	6.960	4.043	1.00	69.89	R	C
ÁTOMO	1133	NE	ARG	R	84	58.601	7.472	3.010	1.00	67.69	R	N
ÁTOMO	1134	CZ	ARG	R	84	59.154	8.160	1.996	1.00	66.16	R	C
ÁTOMO	1135	NH1	ARG	R	84	60.460	8.357	1.963	1.00	63.97	R	N
ÁTOMO	1136	NH2	ARG	R	84	58.380	8.621	1.008	1.00	66.32	R	N
ÁTOMO	1137	C	ARG	R	84	58.157	3.337	5.458	1.00	69.55	R	C
ÁTOMO	1138	O	ARG	R	84	58.625	2.376	4.863	1.00	68.26	R	O
ÁTOMO	1139	N	SER	R	85	56.836	3.565	5.554	1.00	69.16	R	N
ÁTOMO	1140	CA	SER	R	85	55.906	2.676	4.881	1.00	69.24	R	C
ÁTOMO	1141	CB	SER	R	85	54.733	2.413	5.824	1.00	68.28	R	C
ÁTOMO	1142	OG	SER	R	85	53.828	1.499	5.204	1.00	66.67	R	O

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ÁTOMO	1143	C	SER	R	85	55.396	3.283	3.574	1.00	69.39	R	C
ÁTOMO	1144	O	SER	R	85	55.016	4.444	3.493	1.00	69.33	R	O
ÁTOMO	1145	N	ILE	R	86	55.437	2.458	2.511	1.00	70.46	R	N
ÁTOMO	1146	CA	ILE	R	86	54.972	2.933	1.215	1.00	71.79	R	C
ÁTOMO	1147	CB	ILE	R	86	56.195	3.312	0.379	1.00	71.58	R	C
ÁTOMO	1148	CG2	ILE	R	86	55.744	3.879	-0.979	1.00	72.31	R	C
ÁTOMO	1149	CG1	ILE	R	86	57.003	4.399	1.094	1.00	71.33	R	C
ÁTOMO	1150	CD1	ILE	R	86	58.384	4.603	0.470	1.00	72.37	R	C
ÁTOMO	1151	C	ILE	R	86	54.144	1.872	0.488	1.00	72.39	R	C
ÁTOMO	1152	O	ILE	R	86	54.496	0.701	0.413	1.00	73.22	R	O
ÁTOMO	1153	N	GLU	R	87	52.979	2.317	-0.019	1.00	73.42	R	N
ÁTOMO	1154	CA	GLU	R	87	52.108	1.411	-0.758	1.00	74.10	R	C
ÁTOMO	1155	CB	GLU	R	87	50.672	1.900	-0.574	1.00	73.40	R	C
ÁTOMO	1156	CG	GLU	R	87	49.632	0.876	-1.028	1.00	75.07	R	C
ÁTOMO	1157	CD	GLU	R	87	48.275	1.302	-0.517	1.00	75.32	R	C
ÁTOMO	1158	OE1	GLU	R	87	47.877	0.841	0.543	1.00	76.51	R	O
ÁTOMO	1159	OE2	GLU	R	87	47.644	2.136	-1.165	1.00	74.90	R	O
ÁTOMO	1160	C	GLU	R	87	52.467	1.398	-2.246	1.00	75.06	R	C
ÁTOMO	1161	O	GLU	R	87	51.997	2.201	-3.041	1.00	75.38	R	O
ÁTOMO	1162	N	VAL	R	88	53.367	0.464	-2.601	1.00	76.09	R	N
ÁTOMO	1163	CA	VAL	R	88	53.874	0.431	-3.967	1.00	77.64	R	C
ÁTOMO	1164	CB	VAL	R	88	55.369	0.746	-3.908	1.00	77.48	R	C
ÁTOMO	1165	CG1	VAL	R	88	56.029	0.416	-5.245	1.00	77.35	R	C
ÁTOMO	1166	CG2	VAL	R	88	55.580	2.216	-3.591	1.00	78.41	R	C
ÁTOMO	1167	C	VAL	R	88	53.667	-0.949	-4.611	1.00	78.83	R	C
ÁTOMO	1168	O	VAL	R	88	53.779	-1.982	-3.975	1.00	79.09	R	O
ÁTOMO	1169	N	PRO	R	89	53.310	-0.918	-5.909	1.00	79.58	R	N
ÁTOMO	1170	CD	PRO	R	89	53.005	0.231	-6.738	1.00	79.45	R	C
ÁTOMO	1171	CA	PRO	R	89	53.177	-2.154	-6.677	1.00	80.36	R	C
ÁTOMO	1172	CB	PRO	R	89	52.607	-1.797	-8.049	1.00	79.98	R	C
ÁTOMO	1173	CG	PRO	R	89	52.642	-0.279	-8.214	1.00	80.10	R	C
ÁTOMO	1174	C	PRO	R	89	54.529	-2.853	-6.830	1.00	80.61	R	C
ÁTOMO	1175	O	PRO	R	89	55.539	-2.256	-7.177	1.00	80.05	R	O
ÁTOMO	1176	N	LEU	R	90	54.535	-4.163	-6.517	1.00	82.18	R	N
ÁTOMO	1177	CA	LEU	R	90	55.798	-4.893	-6.473	1.00	83.61	R	C
ÁTOMO	1178	CB	LEU	R	90	55.669	-5.986	-5.411	1.00	83.45	R	C
ÁTOMO	1179	CG	LEU	R	90	56.915	-6.102	-4.531	1.00	83.26	R	C
ÁTOMO	1180	CD1	LEU	R	90	58.057	-5.205	-5.012	1.00	82.85	R	C
ÁTOMO	1181	CD2	LEU	R	90	56.649	-5.716,	-3.077	1.00	83.25	R	C
ÁTOMO	1182	C	LEU	R	90	56.149	-5.531	-7.818	1.00	84.45	R	C
ÁTOMO	1183	O	LEU	R	90	56.305	-6.740	-7.946	1.00	84.45	R	O
ÁTOMO	1184	N	ASN	R	91	56.249	-4.678	-8.851	1.00	85.73	R	N
ÁTOMO	1185	CA	ASN	R	91	56.525	-5.209	-10.180	1.00	86.79	R	C
ÁTOMO	1186	C13	ASN	R	91	55.775	-4.350	-11.198	1.00	87.26	R	C
ÁTOMO	1187	CG	ASN	R	91	54.294	-4.616	-11.082	1.00	87.64	R	C
ÁTOMO	1188	OD1	ASN	R	91	53.855	-5.727	-10.799	1.00	88.26	R	O
ÁTOMO	1189	ND2	ASN	R	91	53.504	-3.552	-11.309	1.00	88.14	R	N
ÁTOMO	1190	C	ASN	R	91	58.026	-5.224	-10.486	1.00	87.60	R	C
ÁTOMO	1191	O	ASN	R	91	58.464	-5.525	-11.588	1.00	87.91	R	O
ÁTOMO	1192	N	GLU	R	92	58.824	-4.841	-9.468	1.00	88.44	R	N
ÁTOMO	1193	CA	GLU	R	92	60.272	-4.903	-9.638	1.00	89.44	R	C
ÁTOMO	1194	CB	GLU	R	92	60.628	-4.319	-11.005	1.00	91.03	R	C
ÁTOMO	1195	CG	GLU	R	92	60.945	-2.825	-10.947	1.00	92.82	R	C
ÁTOMO	1196	CD	GLU	R	92	60.923	-2.262	-12.349	1.00	94.79	R	C
ÁTOMO	1197	OE1	GLU	R	92	61.180	-1.078	-12.510	1.00	95.91	R	O
ÁTOMO	1198	OE2	GLU	R	92	60.644	-3.020	-13.277	1.00	95.77	R	O
ÁTOMO	1199	C	GLU	R	92	61.038	-4.180	-8.523	1.00	89.16	R	C
ÁTOMO	1200	O	GLU	R	92	60.486	-3.467	-7.695	1.00	89.19	R	O

ÁTOMO	1201	N	ARG	R	93	62.364	-4.423	-8.510	1.00	88.70	R	N
ÁTOMO	1202	CA	ARG	R	93	63.203	-3.932	-7.420	1.00	88.39	R	C
ÁTOMO	1203	CB	ARG	R	93	64.665	-4.113	-7.829	1.00	87.82	R	C
ÁTOMO	1204	C	ARG	R	93	62.939	-2.465	-7.066	1.00	87.79	R	C
ÁTOMO	1205	O	ARG	R	93	62.856	-1.587	-7.915	1.00	87.40	R	O
ÁTOMO	1206	N	ILE	R	94	62.769	-2.230	-5.749	1.00	87.29	R	N
ÁTOMO	1207	CA	ILE	R	94	62.664	-0.862	-5.252	1.00	86.37	R	C
ÁTOMO	1208	CB	ILE	R	94	61.253	-0.652	-4.696	1.00	86.45	R	C
ÁTOMO	1209	CG2	ILE	R	94	61.094	0.802	-4.220	1.00	86.59	R	C
ÁTOMO	1210	CG1	ILE	R	94	60.207	-0.907	-5.784	1.00	86.32	R	C
ÁTOMO	1211	CD1	ILE	R	94	58.881	-1.413	-5.208	1.00	86.05	R	C
ÁTOMO	1212	C	ILE	R	94	63.695	-0.604	-4.147	1.00	85.38	R	C
ÁTOMO	1213	O	ILE	R	94	63.836	-1.364	-3.198	1.00	84.68	R	O
ÁTOMO	1214	N	CYS	R	95	64.457	0.492	-4.319	1.00	85.21	R	N
ÁTOMO	1215	CA	CYS	R	95	65.507	0.790	-3.358	1.00	85.65	R	C
ÁTOMO	1216	C	CYS	R	95	65.252	2.112	-2.629	1.00	85.09	R	C
ÁTOMO	1217	O	CYS	R	95	64.956	3.144	-3.216	1.00	86.18	R	O
ÁTOMO	1218	CB	CYS	R	95	66.840	0.862	-4.097	1.00	85.94	R	C
ÁTOMO	1219	SG	CYS	R	95	67.232	-0.692	-4.935	1.00	87.89	R	S
ÁTOMO	1220	N	LEU	R	96	65.336	2.029	-1.288	1.00	83.68	R	N
ÁTOMO	1221	CA	LEU	R	96	65.177	3.219	-0.460	1.00	82.89	R	C
ÁTOMO	1222	CB	LEU	R	96	64.174	2.881	0.646	1.00	83.32	R	C
ÁTOMO	1223	CG	LEU	R	96	63.814	4.096	1.504	1.00	84.29	R	C
ÁTOMO	1224	CD1	LEU	R	96	62.885	3.732	2.664	1.00	84.58	R	C
ÁTOMO	1225	CD2	LEU	R	96	65.036	4.766	2.130	1.00	84.50	R	C
ÁTOMO	1226	C	LEU	R	96	66.513	3.625	0.164	1.00	82.63	R	C
ÁTOMO	1227	O	LEU	R	96	67.326	2.802	0.561	1.00	82.88	R	O
ÁTOMO	1228	N	GLN	R	97	66.746	4.949	0.200	1.00	81.96	R	N
ÁTOMO	1229	CA	GLN	R	97	67.965	5.448	0.831	1.00	81.67	R	C
ÁTOMO	1230	CB	GLN	R	97	68.768	6.217	-0.219	1.00	82.00	R	C
ÁTOMO	1231	CG	GLN	R	97	68.849	5.471	-1.553	1.00	83.05	R	C
ÁTOMO	1232	CD	GLN	R	97	69.895	6.119	-2.429	1.00	84.66	R	C
ÁTOMO	1233	OE1	GLN	R	97	70.197	7.298	-2.343	1.00	85.58	R	O
ÁTOMO	1234	NE2	GLN	R	97	70.450	5.278	-3.324	1.00	85.66	R	N
ÁTOMO	1235	C	GLN	R	97	67.641	6.363	2.015	1.00	81.37	R	C
ÁTOMO	1236	O	GLN	R	97	66.796	7.246	1.945	1.00	81.46	R	O
ÁTOMO	1237	N	VAL	R	98	68.323	6.104	3.149	1.00	80.64	R	N
ÁTOMO	1238	CA	VAL	R	98	67.991	6.848	4.359	1.00	80.06	R	C
ÁTOMO	1239	CB	VAL	R	98	67.544	5.854	5.429	1.00	79.37	R	C
ÁTOMO	1240	CG1	VAL	R	98	67.098	6.608	6.681	1.00	79.32	R	C
ÁTOMO	1241	CG2	VAL	R	98	66.385	5.026	4.909	1.00	78.50	R	C
ÁTOMO	1242	C	VAL	R	98	69.157	7.690	4.880	1.00	81.16	R	C
ÁTOMO	1243	O	VAL	R	98	70.318	7.298	4.862	1.00	81.24	R	O
ÁTOMO	1244	N	GLY	R	99	68.812	8.909	5.331	1.00	81.88	R	N
ÁTOMO	1245	CA	GLY	R	99	69.837	9.776	5.891	1.00	82.68	R	C
ÁTOMO	1246	C	GLY	R	99	69.464	10.232	7.305	1.00	84.10	R	C
ÁTOMO	1247	O	GLY	R	99	68.411	9.924	7.841	1.00	83.64	R	O
ÁTOMO	1248	N	SER	R	100	70.396	10.959	7.931	1.00	85.90	R	N
ÁTOMO	1249	CA	SER	R	100	70.121	11.415	9.284	1.00	87.83	R	C
ÁTOMO	1250	CB	SER	R	100	70.710	10.397	10.265	1.00	87.47	R	C
ÁTOMO	1251	OG	SER	R	100	71.800	9.715	9.644	1.00	88.31	R	O
ÁTOMO	1252	C	SER	R	100	70.709	12.796	9.550	1.00	89.25	R	C
ÁTOMO	1253	O	SER	R	100	71.786	13.162	9.082	1.00	89.46	R	O
ÁTOMO	1254	N	GLN	R	101	69.936	13.598	10.288	1.00	91.48	R	N
ÁTOMO	1255	CA	GLN	R	101	70.425	14.879	10.717	1.00	93.60	R	C
ÁTOMO	1256	CB	GLN	R	101	70.213	15.904	9.576	1.00	94.44	R	C
ÁTOMO	1257	CG	GLN	R	101	71.127	17.132	9.692	1.00	96.46	R	C
ÁTOMO	1258	CD	GLN	R	101	71.264	17.819	8.347	1.00	98.38	R	C
ÁTOMO	1259	OE1	GLN	R	101	72.104	18.676	8.125	1.00	98.68	R	O

ÁTOMO	1260	NE2	GLN	R	101	70.364	17.416	7.428	1.00	99.02	R	N
ÁTOMO	1261	C	GLN	R	101	69.730	15.338	11.984	1.00	94.64	R	C
ÁTOMO	1262	O	GLN	R	101	68.847	14.680	12.548	1.00	94.60	R	O
ÁTOMO	1263	N	CYS	R	102	70.231	16.468	12.502	1.00	96.32	R	N
ÁTOMO	1264	CA	CYS	R	102	69.461	17.283	13.413	1.00	98.14	R	C
ÁTOMO	1265	C	CYS	R	102	68.847	18.509	12.703	1.00	98.53	R	C
ÁTOMO	1266	O	CYS	R	102	69.462	19.202	11.916	1.00	98.75	R	O
ÁTOMO	1267	CB	CYS	R	102	70.380	17.718	14.572	1.00	100.07	R	C
ÁTOMO	1268	SG	CYS	R	102	71.772	16.589	14.795	1.00	103.24	R	S
ÁTOMO	1269	N	SER	R	103	67.548	18.696	12.995	1.00	98.95	R	N
ÁTOMO	1270	CA	SER	R	103	66.595	19.624	12.355	1.00	99.38	R	C
ÁTOMO	1271	CB	SER	R	103	66.606	20.940	13.115	1.00	98.08	R	C
ÁTOMO	1272	OG	SER	R	103	65.536	20.923	14.065	1.00	96.68	R	O
ÁTOMO	1273	C	SER	R	103	66.688	19.831	10.821	1.00	99.93	R	C
ÁTOMO	1274	O	SER	R	103	67.649	20.353	10.244	1.00	99.98	R	O
ÁTOMO	1275	N	THR	R	104	65.642	19.195	10.439	1.00	99.96	R	N
ÁTOMO	1276	CA	THR	R	104	65.032	19.704	9.178	1.00	99.76	R	C
ÁTOMO	1277	CB	THR	R	104	64.043	20.795	9.529	1.00	100.10	R	C
ÁTOMO	1278	C	THR	R	104	66.026	20.149	8.072	1.00	100.47	R	C
ÁTOMO	1279	O	THR	R	104	65.699	20.769	7.076	1.00	100.37	R	O
ÁTOMO	1280	N	ASN	R	105	67.276	19.782	7.996	1.00	100.21	R	N
ÁTOMO	1281	CA	ASN	R	105	68.419	20.151	7.115	1.00	99.27	R	C
ÁTOMO	1282	CB	ASN	R	105	69.653	19.323	7.589	1.00	97.89	R	C
ÁTOMO	1283	C	ASN	R	105	68.288	19.916	5.567	1.00	99.40	R	C
ÁTOMO	1284	O	ASN	R	105	67.455	19.207	5.023	1.00	100.19	R	O
ÁTOMO	1285	N	PRO	R	110	72.314	16.855	4.636	1.00	100.55	R	N
ÁTOMO	1286	CA	PRO	R	110	72.840	15.913	5.617	1.00	100.45	R	C
ÁTOMO	1287	CB	PRO	R	110	71.986	14.672	5.770	1.00	101.19	R	C
ÁTOMO	1288	C	PRO	R	110	73.978	15.072	5.036	1.00	101.27	R	C
ÁTOMO	1289	O	PRO	R	110	74.344	15.403	3.916	1.00	101.62	R	O
ÁTOMO	1290	N	SER	R	111	74.750	14.116	5.919	1.00	100.19	R	N
ÁTOMO	1291	CA	SER	R	111	75.399	13.143	5.074	1.00	99.29	R	C
ÁTOMO	1292	CB	SER	R	111	76.872	13.512	4.960	1.00	97.71	R	C
ÁTOMO	1293	C	SER	R	111	75.341	11.764	5.668	1.00	98.69	R	C
ÁTOMO	1294	O	SER	R	111	75.754	11.461	6.807	1.00	98.52	R	O
ÁTOMO	1295	N	ILE	R	112	74.746	10.922	4.840	1.00	99.04	R	N
ÁTOMO	1296	CA	ILE	R	112	75.165	9.539	4.751	1.00	99.58	R	C
ÁTOMO	1297	CB	ILE	R	112	76.692	9.451	4.699	1.00	99.70	R	C
ÁTOMO	1298	C	ILE	R	112	74.419	8.805	3.609	1.00	99.23	R	C
ÁTOMO	1299	O	ILE	R	112	74.281	9.299	2.486	1.00	100.32	R	O
ÁTOMO	1300	N	LEU	R	113	73.927	7.616	3.933	1.00	97.67	R	N
ÁTOMO	1301	CA	LEU	R	113	72.906	7.051	3.045	1.00	94.72	R	C
ÁTOMO	1302	CB	LEU	R	113	72.909	7.791	1.691	1.00	93.23	R	C
ÁTOMO	1303	CG	LEU	R	113	72.331	9.214	1.777	1.00	92.82	R	C
ÁTOMO	1304	CD1	LEU	R	113	71.476	9.616	0.561	1.00	91.70	R	C
ÁTOMO	1305	CD2	LEU	R	113	71.410	9.399	3.013	1.00	91.48	R	C
ÁTOMO	1306	C	LEU	R	113	73.160	5.560	2.873	1.00	93.45	R	C
ÁTOMO	1307	O	LEU	R	113	74.056	5.139	2.154	1.00	93.20	R	O
ÁTOMO	1308	N	VAL	R	114	72.380	4.736	3.637	1.00	91.73	R	N
ÁTOMO	1309	CA	VAL	R	114	72.514	3.279	3.525	1.00	90.61	R	C
ÁTOMO	1310	CB	VAL	R	114	72.534	2.706	4.935	1.00	89.74	R	C
ÁTOMO	1311	CG1	VAL	R	114	72.373	3.859	5.915	1.00	89.47	R	C
ÁTOMO	1312	CG2	VAL	R	114	71.374	1.750	5.134	1.00	88.54	R	C
ÁTOMO	1313	C	VAL	R	114	71.342	2.683	2.746	1.00	90.72	R	C
ÁTOMO	1314	O	VAL	R	114	70.199	2.822	3.164	1.00	91.38	R	O
ÁTOMO	1315	N	GLU	R	115	71.712	2.188	1.554	1.00	90.13	R	N
ÁTOMO	1316	CA	GLU	R	115	70.695	1.671	0.650	1.00	89.00	R	C
ÁTOMO	1317	CB	GLU	R	115	71.318	1.546	-0.742	1.00	89.81	R	C

ÁTOMO	1318	CG	GLU	R	115	70.350	1.942	-1.858	1.00	92.85	R	C
ÁTOMO	1319	CD	GLU	R	115	71.063	1.864	-3.189	1.00	94.83	R	C
ÁTOMO	1320	OE1	GLU	R	115	72.217	1.458	-3.213	1.00	95.98	R	O
ÁTOMO	1321	OE2	GLU	R	115	70.456	2.217	-4.199	1.00	96.12	R	O
ÁTOMO	1322	C	GLU	R	115	70.185	0.306	1.110	1.00	87.30	R	C
ÁTOMO	1323	O	GLU	R	115	70.909	-0.514	1.660	1.00	87.71	R	O
ÁTOMO	1324	N	LYS	R	116	68.874	0.096	0.916	1.00	85.67	R	N
ÁTOMO	1325	CA	LYS	R	116	68.332	-1.235	1.126	1.00	84.17	R	C
ÁTOMO	1326	CB	LYS	R	116	67.757	-1.337	2.534	1.00	83.58	R	C
ÁTOMO	1327	CG	LYS	R	116	67.431	-2.785	2.904	1.00	83.44	R	C
ÁTOMO	1328	CD	LYS	R	116	67.624	-3.735	1.718	1.00	84.45	R	C
ÁTOMO	1329	CE	LYS	R	116	68.553	-4.910	2.046	1.00	85.52	R	C
ÁTOMO	1330	NZ	LYS	R	116	69.779	-4.808	1.255	1.00	85.59	R	N
ÁTOMO	1331	C	LYS	R	116	67.248	-1.545	0.097	1.00	83.73	R	C
ÁTOMO	1332	O	LYS	R	116	66.214	-0.904	0.017	1.00	83.67	R	O
ÁTOMO	1333	N	CYS	R	117	67.530	-2.544	-0.747	1.00	83.52	R	N
ÁTOMO	1334	CA	CYS	R	117	66.550	-2.801	-1.795	1.00	83.42	R	C
ÁTOMO	1335	C	CYS	R	117	65.652	-3.988	-1.441	1.00	82.84	R	C
ÁTOMO	1336	O	CYS	R	117	65.897	-4.726	-0.495	1.00	82.32	R	O
ÁTOMO	1337	CB	CYS	R	117	67.306	-3.088	-3.094	1.00	84.02	R	C
ÁTOMO	1338	SG	CYS	R	117	68.355	-1.705	-3.595	1.00	86.02	R	S
ÁTOMO	1339	N	ILE	R	118	64.545	-4.039	-2.208	1.00	82.77	R	N
ÁTOMO	1340	CA	ILE	R	118	63.714	-5.216	-2.171	1.00	82.48	R	C
ÁTOMO	1341	CB	ILE	R	118	62.480	-5.009	-1.286	1.00	81.38	R	C
ÁTOMO	1342	CG2	ILE	R	118	61.646	-3.807	-1.763	1.00	80.82	R	C
ÁTOMO	1343	CG1	ILE	R	118	61.620	-6.260	-1.436	1.00	80.74	R	C
ÁTOMO	1344	CD1	ILE	R	118	60.414	-6.308	-0.523	1.00	80.72	R	C
ÁTOMO	1345	C	ILE	R	118	63.304	-5.663	-3.565	1.00	83.51	R	C
ÁTOMO	1346	O	ILE	R	118	62.966	-4.886	-4.439	1.00	82.68	R	O
ÁTOMO	1347	N	SE	R	119	63.361	-6.981	-3.749	1.00	85.39	R	N
ÁTOMO	1348	CA	SE	R	119	63.152	-7.476	-5.110	1.00	87.60	R	C
ÁTOMO	1349	CB	SE	R	119	64.288	-8.446	-5.451	1.00	87.46	R	C
ÁTOMO	1350	OG	SE	R	119	65.357	-7.750	-6.088	1.00	88.64	R	O
ÁTOMO	1351	C	SE	R	119	61.834	-8.220	-5.234	1.00	89.11	R	C
ÁTOMO	1352	O	SE	R	119	61.298	-8.757	-4.272	1.00	89.37	R	O
ÁTOMO	1353	N	PO	R	120	61.292	-8.233	-6.467	1.00	90.55	R	N
ÁTOMO	1354	CD	PO	R	120	61.793	-7.579	-7.673	1.00	90.50	R	C
ÁTOMO	1355	CA	PO	R	120	60.061	-8.965	-6.760	1.00	91.85	R	C
ÁTOMO	1356	CB	PO	R	120	59.837	-8.901	-8.271	1.00	91.34	R	C
ÁTOMO	1357	CG	PO	R	120	61.078	-8.283	-8.926	1.00	90.81	R	C
ÁTOMO	1358	C	PO	R	120	60.195	-10.427	-6.337	1.00	93.40	R	C
ÁTOMO	1359	O	PO	R	120	61.246	-10.897	-5.963	1.00	93.51	R	O
ÁTOMO	1360	N	PO	R	121	59.052	-11.126	-6.319	1.00	94.80	R	N
ÁTOMO	1361	CD	PO	R	121	57.679	-10.642	-6.320	1.00	95.24	R	C
ÁTOMO	1362	CA	PO	R	121	59.031	-12.588	-6.186	1.00	95.66	R	C
ÁTOMO	1363	CB	PO	R	121	57.585	-13.050	-6.073	1.00	95.53	R	C
ÁTOMO	1364	CG	PO	R	121	56.733	-11.825	-5.792	1.00	95.40	R	C
ÁTOMO	1365	C	PO	R	121	59.710	-13.314	-7.354	1.00	96.27	R	C
ÁTOMO	1366	O	PO	R	121	60.232	-12.728	-8.290	1.00	96.65	R	O
ÁTOMO	1367	N	GLU	R	122	59.712	-14.654	-7.263	1.00	96.69	R	N
ÁTOMO	1368	CA	GLU	R	122	60.466	-15.436	-8.239	1.00	97.64	R	C
ÁTOMO	1369	CB	GLU	R	122	60.754	-16.811	-7.647	1.00	98.18	R	C
ÁTOMO	1370	C	GLU	R	122	59.750	-15.566	-9.580	1.00	97.83	R	C
ÁTOMO	1371	O	GLU	R	122	58.765	-14.900	-9.861	1.00	98.16	R	O
ÁTOMO	1372	N	GLY	R	123	60.290	-16.456	-10.440	1.00	98.23	R	N
ÁTOMO	1373	CA	GLY	R	123	59.903	-16.367	-11.846	1.00	98.34	R	C
ÁTOMO	1374	C	GLY	R	123	60.096	-14.924	-12.276	1.00	98.41	R	C
ÁTOMO	1375	O	GLY	R	123	60.612	-14.096	-11.527	1.00	97.99	R	O
ÁTOMO	1376	N	ASP	R	124	59.740	-14.604	-13.517	1.00	98.66	R	N
ÁTOMO	1377	CA	ASP	R	124	59.442	-15.503	-14.620	1.00	98.83	R	C

ÁTOMO	1378	CB	ASP	R	124	i9.960	-16.929	-14.423	1.00	98.61	R	C
ÁTOMO	1379	C	ASP	R	124	59.663	-14.888	-15.999	1.00	98.97	R	C
ÁTOMO	1380	O	ARP	R	124	59.298	-15.411	-17.040	1.00	98.84	R	O
ÁTOMO	1381	N	PRO	R	125	60.276	-13.683	-15.943	1.00	99.06	R	N
ÁTOMO	1382	CD	PRO	R	125	60.842	-13.053	-14.762	1.00	99.07	R	C
ÁTOMO	1383	CA	PRO	R	125	60.488	-12.806	-17.076	1.00	99.15	R	C
ÁTOMO	1384	CB	PRO	R	125	61.557	-11.780	-16.757	1.00	98.98	R	C
ÁTOMO	1385	CG	PRO	R	125	61.684	-11.758	-15.228	1.00	99.03	R	C
ÁTOMO	1386	C	PRO	R	125	59.183	-12.245	-17.658	1.00	98.89	R	C
ÁTOMO	1387	O	PRO	R	125	58.874	-11.068	-17.541	1.00	98.69	R	O
ÁTOMO	1388	N	GLU	R	126	58.446	-13.145	-18.351	1.00	98.52	R	N
ÁTOMO	1389	CA	GLU	R	126	57.012	-12.938	-18.505	1.00	98.29	R	C
ÁTOMO	1390	CB	GLU	R	126	56.502	-13.566	-19.812	1.00	99.27	R	C
ÁTOMO	1391	CG	GLU	R	126	56.541	-12.662	-21.043	1.00	102.26	R	C
ÁTOMO	1392	CD	GLU	R	126	55.852	-11.335	-20.795	1.00	105.09	R	C
ÁTOMO	1393	OE1	GLU	R	126	54.628	-11.301	-20.704	1.00	106.59	R	O
ÁTOMO	1394	OE2	GLU	R	126	56.540	-10.316	-20.869	1.00	105.98	R	O
ÁTOMO	1395	C	GLU	R	126	56.272	-13.649	-17.392	1.00	97.16	R	C
ÁTOMO	1396	O	GLU	R	126	56.659	-13.635	-16.227	1.00	97.88	R	O
ÁTOMO	1397	N	SER	R	127	55.187	-14.322	-17.835	1.00	95.40	R	N
ÁTOMO	1398	CA	SER	R	127	54.401	-15.089	-16.897	1.00	93.82	R	C
ÁTOMO	1399	CB	SER	R	127	55.389	-15.802	-15.987	1.00	93.96	R	C
ÁTOMO	1400	OG	SER	R	127	56.514	-14.940	-15.779	1.00	94.37	R	O
ÁTOMO	1401	C	SER	R	127	53.518	-14.151	-16.082	1.00	92.55	R	C
ÁTOMO	1402	O	SER	R	127	52.410	-14.462	-15.681	1.00	92.49	R	O
ÁTOMO	1403	N	ALA	R	128	54.072	-12.966	-15.792	1.00	91.22	R	N
ÁTOMO	1404	CA	ALA	R	128	53.280	-11.874	-15.294	1.00	89.83	R	C
ÁTOMO	1405	CB	ALA	R	128	54.233	-10.749	-14.877	1.00	90.27	R	C
ÁTOMO	1406	C	ALA	R	128	52.291	-11.385	-16.357	1.00	89.00	R	C
ÁTOMO	1407	O	ALA	R	128	52.593	-11.270	-17.547	1.00	89.71	R	O
ÁTOMO	1408	N	VAL	R	129	51.043	-11.174	-15.890	1.00	87.77	R	N
ÁTOMO	1409	CA	VAL	R	129	50.001	-10.665	-16.765	1.00	86.32	R	C
ÁTOMO	1410	CB	VAL	R	129	48.672	-10.733	-16.005	1.00	86.35	R	C
ÁTOMO	1411	CG1	VAL	R	129	48.937	-11.160	-14.558	1.00	86.60	R	C
ÁTOMO	1412	CG2	VAL	R	129	48.001	-9.372	-16.008	1.00	87.18	R	C
ÁTOMO	1413	C	VAL	R	129	50.293	-9.209	-17.159	1.00	84.92	R	C
ÁTOMO	1414	O	VAL	R	129	51.181	-8.563	-16.623	1.00	84.48	R	O
ÁTOMO	1415	N	THR	R	130	49.543	-8.723	-18.164	1.00	83.78	R	N
ÁTOMO	1416	CA	THR	R	130	49.720	-7.344	-18.604	1.00	83.06	R	C
ÁTOMO	1417	CB	THR	R	130	50.487	-7.341	-19.933	1.00	83.42	R	C
ÁTOMO	1418	OG1	THR	R	130	49.697	-7.975	-20.935	1.00	85.56	R	O
ÁTOMO	1419	CG2	THR	R	130	51.791	-8.120	-19.765	1.00	84.04	R	C
ÁTOMO	1420	C	THR	R	130	48.388	-6.605	-18.755	1.00	82.58	R	C
ÁTOMO	1421	O	THR	R	130	47.346	-7.176	-19.059	1.00	81.67	R	O
ÁTOMO	1422	N	GLU	R	131	48.453	-5.287	-18.472	1.00	82.27	R	N
ÁTOMO	1423	CA	GLU	R	131	47.280	-4.438	-18.639	1.00	81.66	R	C
ÁTOMO	1424	CB	GLU	R	131	46.754	-4.623	-20.063	1.00	84.16	R	C
ÁTOMO	1425	CG	GLU	R	131	47.786	-4.215	-21.115	1.00	87.93	R	C
ÁTOMO	1426	CD	GLU	R	131	47.177	-4.323	-22.494	1.00	89.79	R	C
ÁTOMO	1427	OE1	GLU	R	131	46.187	-5.025	-22.643	1.00	91.97	R	O
ÁTOMO	1428	OE2	GLU	R	131	47.707	-3.706	-23.417	1.00	90.84	R	O
ÁTOMO	1429	C	GLU	R	131	46.192	-4.785	-17.621	1.00	79.25	R	C
ÁTOMO	1430	O	GLU	R	131	45.052	-5.087	-17.952	1.00	78.94	R	O
ÁTOMO	1431	N	LEU	R	132	46.601	-4.772	-16.340	1.00	76.59	R	N
ÁTOMO	1432	CA	LEU	R	132	45.667	-5.109	-15.275	1.00	74.32	R	C
ÁTOMO	1433	CB	LEU	R	132	46.444	-5.852	-14.186	1.00	72.56	R	C
ÁTOMO	1434	CG	LEU	R	132	45.695	-5.895	-12.852	1.00	72.22	R	C
ÁTOMO	1435	CD1	LEU	R	132	44.557	-6.918	-12.857	1.00	70.16	R	C
ÁTOMO	1436	CD2	LEU	R	132	46.600	-6.269	-11.679	1.00	70.71	R	C

ÁTOMO	1437	C	LEU	R	132	45.014	-3.859	-14.684	1.00	73.89	R	C
ÁTOMO	1438	O	LEU	R	132	45.555	-3.191	-13.812	1.00	73.40	R	O
ÁTOMO	1439	N	GLN	R	133	43.829	-3.521	-15.225	1.00	74.00	R	N
ÁTOMO	1440	CA	GLN	R	133	43.092	-2.388	-14.678	1.00	73.58	R	C
ÁTOMO	1441	CB	GLN	R	133	42.967	-1.312	-15.759	1.00	76.12	R	C
ÁTOMO	1442	CG	GLN	R	133	42.873	-1.889	-17.172	1.00	79.10	R	C
ÁTOMO	1443	CD	GLN	R	133	43.181	-0.798	-18.172	1.00	81.25	R	C
ÁTOMO	1444	OE1	GLN	R	133	42.316	-0.179	-18.770	1.00	82.23	R	O
ÁTOMO	1445	NE2	GLN	R	133	44.499	-0.562	-18.329	1.00	81.66	R	N
ÁTOMO	1446	C	GLN	R	133	41.702	-2.801	-14.184	1.00	71.52	R	C
ÁTOMO	1447	O	GLN	R	133	41.087	-3.744	-14.665	1.00	72.04	R	O
ÁTOMO	1448	N	CYS	R	134	41.232	-2.078	-13.152	1.00	68.85	R	N
ÁTOMO	1449	CA	CYS	R	134	39.920	-2.382	-12.597	1.00	66.75	R	C
ÁTOMO	1450	C	CYS	R	134	38.960	-1.204	-12.765	1.00	64.31	R	C
ÁTOMO	1451	O	CYS	R	134	39.351	-0.096	-13.109	1.00	63.78	R	O
ÁTOMO	1452	CB	CYS	R	134	40.101	-2.704	-11.113	1.00	68.38	R	C
ÁTOMO	1453	SG	CYS	R	134	41.160	-4.144	-10.850	1.00	70.34	R	S
ÁTOMO	1454	N	ILE	R	135	37.670	-1.507	-12.551	1.00	61.85	R	N
ÁTOMO	1455	CA	ILE	R	135	36.651	-0.466	-12.585	1.00	58.36	R	C
ÁTOMO	1456	CB	ILE	R	135	35.924	-0.554	-13.929	1.00	57.94	R	C
ÁTOMO	1457	CG2	ILE	R	135	34.513	0.051	-13.804	1.00	54.74	R	C
ÁTOMO	1458	CG1	ILE	R	135	36.684	0.235	-15.002	1.00	57.50	R	C
ÁTOMO	1459	CD1	ILE	R	135	36.044	0.094	-16.383	1.00	58.96	R	C
ÁTOMO	1460	C	ILE	R	135	35.652	-0.668	-11.443	1.00	57.95	R	C
ÁTOMO	1461	O	ILE	R	135	35.214	-1.773	-11.154	1.00	58.25	R	O
ÁTOMO	1462	N	TRP	R	136	35.325	0.439	-10.754	1.00	56.24	R	N
ÁTOMO	1463	CA	TRP	R	136	34.426	0.325	-9.612	1.00	56.61	R	C
ÁTOMO	1464	CB	TRP	R	136	34.890	1.306	-8.532	1.00	55.50	R	C
ÁTOMO	1465	CG	TRP	R	136	34.309	0.949	-7.214	1.00	53.54	R	C
ÁTOMO	1466	CD2	TRP	R	136	34.362	1.749	-6.011	1.00	54.02	R	C
ÁTOMO	1467	CE2	TRP	R	136	33.698	1.024	-4.991	1.00	54.07	R	C
ÁTOMO	1468	CE3	TRP	R	136	34.884	3.007	-5.728	1.00	55.35	R	C
ÁTOMO	1469	CD1	TRP	R	136	33.613	-0.236	-6.877	1.00	54.39	R	C
ÁTOMO	1470	NE1	TRP	R	136	33.229	-0.260	-5.572	1.00	54.86	R	N
ÁTOMO	1471	CZ2	TRP	R	136	33.579	1.569	-3.722	1.00	54.29	R	C
ÁTOMO	1472	CZ3	TRP	R	136	34.763	3.552	-4.462	1.00	55.57	R	C
ÁTOMO	1473	CH2	TRP	R	136	34.101	2.830	-3.454	1.00	54.57	R	C
ÁTOMO	1474	C	TRP	R	136	32.972	0.614	-10.000	1.00	56.90	R	C
ÁTOMO	1475	O	TRP	R	136	32.566	1.751	-10.199	1.00	58.05	R	O
ÁTOMO	1476	N	HIS	R	137	32.172	-0.466	-10.142	1.00	56.91	R	N
ÁTOMO	1477	CA	HIS	R	137	30.800	-0.300	-10.621	1.00	56.03	R	C
ÁTOMO	1478	CB	HIS	R	137	30.303	-1.640	-11.161	1.00	55.23	R	C
ÁTOMO	1479	CG	HIS	R	137	30.875	-1.874	-12.533	1.00	54.71	R	C
ÁTOMO	1480	CD2	HIS	R	137	30.191	-2.030	-13.744	1.00	55.22	R	C
ÁTOMO	1481	ND1	HIS	R	137	32.201	-2.030	-12.764	1.00	55.84	R	N
ÁTOMO	1482	CE1	HIS	R	137	32.312	-2.281	-14.080	1.00	55.03	R	C
ÁTOMO	1483	NE2	HIS	R	137	31.126	-2.287	-14.693	1.00	56.00	R	N
ÁTOMO	1484	C	HIS	R	137	29.840	0.183	-9.529	1.00	56.49	R	C
ÁTOMO	1485	O	HIS	R	137	29.586	-0.487	-8.535	1.00	58.18	R	O
ÁTOMO	1486	N	ASN	R	138	29.330	1.415	-9.739	1.00	56.21	R	N
ÁTOMO	1487	CA	ASN	R	138	28.227	1.922	-8.924	1.00	57.44	R	C
ÁTOMO	1488	CB	ASN	R	138	26.999	1.050	-9.197	1.00	58.23	R	C
ÁTOMO	1489	CG	ASN	R	138	25.749	1.805	-8.827	1.00	60.13	R	C
ÁTOMO	1490	OD1	ASN	R	138	24.829	1.272	-8.212	1.00	61.30	R	O
ÁTOMO	1491	ND2	ASN	R	138	25.729	3.095	-9.205	1.00	59.12	R	N
ÁTOMO	1492	C	ASN	R	138	28.559	1.952	-7.426	1.00	58.33	R	C
ÁTOMO	1493	O	ASN	R	138	27.689	1.976	-6.563	1.00	57.09	R	O
ÁTOMO	1494	N	LEU	R	139	29.881	1.931	-7.145	1.00	59.77	R	N

ÁTOMO	1495	CA	LEU	R	139	30.374	1.919	-5.763	1.00	60.87	R	C
ÁTOMO	1496	CB	LEU	R	139	29.862	3.163	-5.020	1.00	59.70	R	C
ÁTOMO	1497	CG	LEU	R	139	30.334	4.505	-5.599	1.00	59.75	R	C
ÁTOMO	1498	CD1	LEU	R	139	29.998	5.673	-4.669	1.00	57.96	R	C
ÁTOMO	1499	CD2	LEU	R	139	31.841	4.582	-5.839	1.00	58.45	R	C
ÁTOMO	1500	C	LEU	R	139	29.939	0.651	-5.005	1.00	62.49	R	C
ÁTOMO	1501	O	LEU	R	139	29.739	0.662	-3.799	1.00	63.40	R	O
ÁTOMO	1502	N	SER	R	140	29.775	-0.460	-5.765	1.00	63.81	R	N
ÁTOMO	1503	CA	SER	R	140	29.161	-1.676	-5.226	1.00	65.20	R	C
ÁTOMO	1504	CB	SER	R	140	27.857	-1.904	-6.005	1.00	65.90	R	C
ÁTOMO	1505	OG	SER	R	140	26.752	-1.372	-5.276	1.00	68.36	R	O
ÁTOMO	1506	C	SER	R	140	30.048	-2.920	-5.404	1.00	65.22	R	C
ÁTOMO	1507	O	SER	R	140	30.173	-3.762	-4.521	1.00	66.71	R	O
ÁTOMO	1508	N	TYR	R	141	30.561	-3.062	-6.650	1.00	64.75	R	N
ÁTOMO	1509	CA	TYR	R	141	31.504	-4.140	-6.975	1.00	64.42	R	C
ÁTOMO	1510	CB	TYR	R	141	30.764	-5.360	-7.555	1.00	65.04	R	C
ÁTOMO	1511	CG	TYR	R	141	30.270	-5.103	-8.947	1.00	66.11	R	C
ÁTOMO	1512	CD1	TYR	R	141	31.014	-5.507	-10.064	1.00	66.95	R	C
ÁTOMO	1513	CE1	TYR	R	141	30.470	-5.399	-11.345	1.00	67.61	R	C
ÁTOMO	1514	CD2	TYR	R	141	28.984	-4.600	-9.136	1.00	67.12	R	C
ÁTOMO	1515	CE2	TYR	R	141	28.448	-4.488	-10.409	1.00	68.39	R	C
ÁTOMO	1516	CZ	TYR	R	141	29.187	-4.867	-11.512	1.00	69.06	R	C
ÁTOMO	1517	OH	TYR	R	141	28.686	-4.663	-12.784	1.00	70.63	R	O
ÁTOMO	1518	C	TYR	R	141	32.562	-3.673	-7.969	1.00	64.10	R	C
ÁTOMO	1519	O	TYR	R	141	32.363	-2.768	-8.768	1.00	62.44	R	O
ÁTOMO	1520	N	MET	R	142	33.729	-4.322	-7.860	1.00	63.99	R	N
ÁTOMO	1521	CA	MET	R	142	34.866	-3.989	-8.702	1.00	65.48	R	C
ÁTOMO	1522	CB	MET	R	142	36.087	-3.829	-7.792	1.00	67.21	R	C
ÁTOMO	1523	CG	MET	R	142	37.378	-3.604	-8.578	1.00	70.81	R	C
ÁTOMO	1524	SD	MET	R	142	38.408	-2.330	-7.838	1.00	77.72	R	S
ÁTOMO	1525	CE	MET	R	142	37.167	-1.030	-7.767	1.00	73.36	R	C
ÁTOMO	1526	C	MET	R	142	35.114	-5.094	-9.727	1.00	66.17	R	C
ÁTOMO	1527	O	MET	R	142	35.148	-6.274	-9.414	1.00	66.91	R	O
ÁTOMO	1528	N	LYS	R	143	35.228	-4.675	-10.996	1.00	66.36	R	N
ÁTOMO	1529	CA	LYS	R	143	35.483	-5.639	-12.054	1.00	67.05	R	C
ÁTOMO	1530	CB	LYS	R	143	34.401	-5.434	-13.123	1.00	67.92	R	C
ÁTOMO	1531	CG	LYS	R	143	34.352	-6.571	-14.136	1.00	69.19	R	C
ÁTOMO	1532	CD	LYS	R	143	34.202	-6.060	-15.569	1.00	71.27	R	C
ÁTOMO	1533	CE	LYS	R	143	33.224	-6.905	-16.390	1.00	71.16	R	C
ÁTOMO	1534	NZ	LYS	R	143	31.854	-6.602	-15.994	1.00	71.43	R	N
ÁTOMO	1535	C	LYS	R	143	36.885	-5.425	-12.641	1.00	66.66	R	C
ÁTOMO	1536	O	LYS	R	143	37.241	-4.354	-13.113	1.00	65.97	R	O
ÁTOMO	1537	N	CYS	R	144	37.717	-6.477	-12.519	1.00	67.07	R	N
ÁTOMO	1538	CA	CYS	R	144	39.090	-6.377	-12.994	1.00	68.28	R	C
ÁTOMO	1539	C	CYS	R	144	39.334	-7.295	-14.192	1.00	68.24	R	C
ÁTOMO	1540	O	CYS	R	144	38.754	-8.366	-14.315	1.00	68.16	R	O
ÁTOMO	1541	CB	CYS	R	144	40.022	-6.762	-11.845	1.00	68.98	R	C
ÁTOMO	1542	SG	CYS	R	144	39.869	-5.642	-10.436	1.00	71.30	R	S
ÁTOMO	1543	N	SER	R	145	40.189	-6.811	-15.106	1.00	69.43	R	N
ÁTOMO	1544	CA	SER	R	145	40.555	-7.578	-16.284	1.00	71.06	R	C
ÁTOMO	1545	CB	SER	R	145	40.243	-6.718	-17.511	1.00	70.62	R	C
ÁTOMO	1546	OG	SER	R	145	38.849	-6.438	-17.578	1.00	70.80	R	O
ÁTOMO	1547	C	SER	R	145	42.055	-7.818	-16.286	1.00	73.04	R	C
ÁTOMO	1548	O	SER	R	145	42.769	-7.484	-15.352	1.00	74.36	R	O
ÁTOMO	1549	N	TRP	R	146	42.526	-8.426	-17.386	1.00	74.61	R	Ñ
ÁTOMO	1550	CA	TRP	R	146	43.959	-8.386	-17.558	1.00	76.46	R	C
ÁTOMO	1551	CB	TRP	R	146	44.624	-8.758	-16.236	1.00	74.01	R	C
ÁTOMO	1552	CG	TRP	R	146	44.418	-10.196	-15.951	1.00	72.34	R	C

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ÁTOMO	1553	CD2	TRP	R	146	43.481	-10.743	-14.999	1.00	70.76	R	C
ÁTOMO	1554	CE2	TRP	R	146	43.658	-12.150	-14.994	1.00	69.26	R	C
ÁTOMO	1555	CE3	TRP	R	146	42.532	-10.170	-14.162	1.00	69.78	R	C
ÁTOMO	1556	CD1	TRP	R	146	45.120	-11.294	-16.505	1.00	71.24	R	C
ÁTOMO	1557	NE1	TRP	R	146	44.718	-12.484	-15.980	1.00	69.89	R	N
ÁTOMO	1558	CZ2	TRP	R	146	42.907	-12.940	-14.138	1.00	69.54	R	C
ÁTOMO	1559	CZ3	TRP	R	146	41.777	-10.959	-13.310	1.00	70.52	R	C
ÁTOMO	1560	CH2	TRP	R	146	41.967	-12.353	-13.296	1.00	70.22	R	C
ÁTOMO	1561	C	TRP	R	146	44.364	-9.384	-18.607	1.00	78.90	R	C
ÁTOMO	1562	O	TRP	R	146	43.596	-10.217	-19.071	1.00	78.80	R	O
ÁTOMO	1563	N	LEU	R	147	45.628	-9.261	-19.008	1.00	81.83	R	N
ÁTOMO	1564	CA	LEU	R	147	46.095	-10.155	-20.040	1.00	84.15	R	C
ÁTOMO	1565	CB	LEU	R	147	46.536	-9.336	-21.253	1.00	84.22	R	C
ÁTOMO	1566	CG	LEU	R	147	45.336	-8.822	-22.059	1.00	84.97	R	C
ÁTOMO	1567	CD1	LEU	R	147	45.717	-7.748	-23.080	1.00	84.53	R	C
ÁTOMO	1568	CD2	LEU	R	147	44.630	-9.929	-22.834	1.00	84.27	R	C
ÁTOMO	1569	C	LEU	R	147	47.217	-11.057	-19.564	1.00	85.74	R	C
ÁTOMO	1570	O	LEU	R	147	47.902	-10.801	-18.580	1.00	85.98	R	O
ÁTOMO	1571	N	PRO	R	148	47.344	-12.163	-20.303	1.00	87.39	R	N
ÁTOMO	1572	CD	PRO	R	148	46.558	-12.564	-21.455	1.00	87.86	R	C
ÁTOMO	1573	CA	PRO	R	148	48.403	-13.171	-20.129	1.00	88.19	R	C
ÁTOMO	1574	CB	PRO	R	148	47.965	-14.454	-20.828	1.00	88.40	R	C
ÁTOMO	1575	CG	PRO	R	148	46.691	-14.155	-21.610	1.00	88.42	R	C
ÁTOMO	1576	C	PRO	R	148	49.756	-12.659	-20.686	1.00	89.62	R	C
ÁTOMO	1577	O	PRO	R	148	49.806	-11.662	-21.387	1.00	89.77	R	O
ÁTOMO	1578	N	GLY	R	149	50.874	-13.358	-20.341	1.00	91.18	R	N
ÁTOMO	1579	CA	GLY	R	149	52.145	-12.622	-20.211	1.00	92.51	R	C
ÁTOMO	1580	C	GLY	R	149	53.242	-12.878	-21.246	1.00	93.62	R	C
ÁTOMO	1581	O	GLY	R	149	54.234	-12.169	-21.354	1.00	94.74	R	O
ÁTOMO	1582	N	ARG	R	150	53.062	-13.955	-22.026	1.00	93.01	R	N
ÁTOMO	1583	CA	ARG	R	150	54.181	-14.608	-22.661	1.00	92.26	R	C
ÁTOMO	1584	CB	ARG	R	150	54.955	-13.873	-23.754	1.00	91.41	R	C
ÁTOMO	1585	C	ARG	R	150	54.122	-16.106	-22.658	1.00	91.84	R	C
ÁTOMO	1586	O	ARG	R	150	53.431	-16.717	-23.454	1.00	92.36	R	O
ÁTOMO	1587	N	THR	R	151	54.916	-16.690	-21.738	1.00	90.45	R	N
ÁTOMO	1588	CA	THR	R	151	54.475	-17.936	-21.146	1.00	89.19	R	C
ÁTOMO	1589	CB	THR	R	151	55.384	-18.215	-19.955	1.00	88.80	R	C
ÁTOMO	1590	C	THR	R	151	53.030	-17.751	-20.676	1.00	87.94	R	C
ÁTOMO	1591	O	THR	R	151	52.703	-17.915	-19.507	1.00	88.05	R	O
ÁTOMO	1592	N	ASN	R	157	46.432	-21.051	-14.609	1.00	85.88	R	N
ÁTOMO	1593	CA	ASN	R	157	45.112	-20.618	-14.145	1.00	84.20	R	C
ÁTOMO	1594	CB	ASN	R	157	44.314	-21.852	-13.723	1.00	84.00	R	C
ÁTOMO	1595	C	ASN	R	157	45.245	-19.634	-12.976	1.00	82.50	R	C
ÁTOMO	1596	O	ASN	R	157	46.051	-19.808	-12.081	1.00	82.32	R	O
ÁTOMO	1597	N	TYR	R	158	44.433	-18.554	-13.024	1.00	79.53	R	N
ÁTOMO	1598	CA	TYR	R	158	44.676	-17.413	-12.133	1.00	77.43	R	C
ÁTOMO	1599	CB	TYR	R	158	44.579	-16.126	-12.968	1.00	76.44	R	C
ÁTOMO	1600	CG	TYR	R	158	45.402	-16.255	-14.214	1.00	75.20	R	C
ÁTOMO	1601	CD1	TYR	R	158	44.764	-16.400	-15.442	1.00	74.38	R	C
ÁTOMO	1602	CE1	TYR	R	158	45.492	-16.312	-16.622	1.00	74.67	R	C
ÁTOMO	1603	CD2	TYR	R	158	46.783	-16.050	-14.174	1.00	75.41	R	C
ÁTOMO	1604	CE2	TYR	R	158	47.512	-15.976	-15.356	1.00	75.52	R	C
ÁTOMO	1605	CZ	TYR	R	158	46.869	-16.109	-16.571	1.00	75.14	R	C
ÁTOMO	1606	OH	TYR	R	158	47.584	-16.043	-17.752	1.00	76.43	R	O
ÁTOMO	1607	C	TYR	R	158	43.742	-17.356	-10.910	1.00	75.97	R	C
ÁTOMO	1608	O	TYR	R	158	42.577	-17.732	-10.921	1.00	75.96	R	O
ÁTOMO	1609	N	THR	R	159	44.406	-16.859	-9.850	1.00	74.64	R	N
ÁTOMO	1610	CA	THR	R	159	43.628	-16.313	-8.746	1.00	73.18	R	C

ÁTOMO	1611	CB	THR	R	159	43.872	-17.106	-7.471	1.00	73.25	R	C
ÁTOMO	1612	OG1	THR	R	159	43.453	-18.448	-7.690	1.00	73.03	R	O
ÁTOMO	1613	CG2	THR	R	159	43.035	-16.509	-6.329	1.00	72.72	R	C
ÁTOMO	1614	C	THR	R	159	43.978	-14.858	-8.503	1.00	71.48	R	C
ÁTOMO	1615	O	THR	R	159	45.137	-14.475	-8.413	1.00	71.07	R	O
ÁTOMO	1616	N	LEU	R	160	42.912	-14.036	-8.456	1.00	69.18	R	N
ÁTOMO	1617	CA	LEU	R	160	43.081	-12.640	-8.082	1.00	67.26	R	C
ÁTOMO	1618	CB	LEU	R	160	42.093	-11.786	-8.887	1.00	66.01	R	C
ÁTOMO	1619	CG	LEU	R	160	42.181	-10.300	-8.500	1.00	63.77	R	C
ÁTOMO	1620	CD1	LEU	R	160	41.758	-9.348	-9.625	1.00	61.55	R	C
ÁTOMO	1621	CD2	LEU	R	160	41.328	-9.945	-7.286	1.00	61.91	R	C
ÁTOMO	1622	C	LEU	R	160	42.823	-12.446	-6.590	1.00	66.34	R	C
ÁTOMO	1623	O	LEU	R	160	41.823	-12.896	-6.047	1.00	65.01	R	O
ÁTOMO	1624	N	TYR	R	161	43.827	-11.837	-5.927	1.00	66.57	R	N
ÁTOMO	1625	CA	TYR	R	161	43.678	-11.470	-4.522	1.00	66.28	R	C
ÁTOMO	1626	CB	TYR	R	161	44.905	-11.973	-3.713	1.00	66.76	R	C
ÁTOMO	1627	CG	TYR	R	161	45.181	-13.444	-3.882	1.00	68.38	R	C
ÁTOMO	1628	CD1	TYR	R	161	46.049	-13.864	-4.886	1.00	68.35	R	C
ÁTOMO	1629	CE1	TYR	R	161	46.379	-15.212	-5.022	1.00	69.74	R	C
ÁTOMO	1630	CD2	TYR	R	161	44.679	-14.394	-2.979	1.00	69.17	R	C
ÁTOMO	1631	CE2	TYR	R	161	45.000	-15.739	-3.120	1.00	69.18	R	C
ÁTOMO	1632	CZ	TYR	R	161	45.829	-16.155	-4.154	1.00	69.89	R	C
ÁTOMO	1633	OH	TYR	R	161	46.083	-17.501	-4.369	1.00	70.29	R	O
ÁTOMO	1634	C	TYR	R	161	43.617	-9.948	-4.413	1.00	65.45	R	C
ÁTOMO	1635	O	TYR	R	161	44.104	-9.205	-5.258	1.00	64.16	R	O
ÁTOMO	1636	N	TYR	R	162	42.954	-9.480	-3.355	1.00	64.72	R	N
ÁTOMO	1637	CA	TYR	R	162	42.865	-8.045	-3.159	1.00	66.48	R	C
ÁTOMO	1638	CB	TYR	R	162	41.659	-7.510	-3.938	1.00	65.27	R	C
ÁTOMO	1639	CG	TYR	R	162	40.390	-8.009	-3.338	1.00	63.11	R	C
ÁTOMO	1640	CD1	TYR	R	162	39.795	-7.315	-2.288	1.00	61.94	R	C
ÁTOMO	1641	CE1	TYR	R	162	38.587	-7.747	-1.761	1.00	61.74	R	C
ÁTOMO	1642	CD2	TYR	R	162	39.766	-9.144	-3.854	1.00	62.34	R	C
ÁTOMO	1643	CE2	TYR	R	162	38.564	-9.584	-3.321	1.00	60.23	R	C
ÁTOMO	1644	CZ	TYR	R	162	37.979	-8.896	-2.274	1.00	60.10	R	C
ÁTOMO	1645	OH	TYR	R	162	36.794	-9.345	-1.719	1.00	58.65	R	O
ÁTOMO	1646	C	TYR	R	162	42.729	-7.701	-1.680	1.00	68.03	R	C
ÁTOMO	1647	O	TYR	R	162	42.155	-8.431	-0.884	1.00	67.34	R	O
ÁTOMO	1648	N	TRP	R	163	43.337	-6.564	-1.311	1.00	69.63	R	N
ÁTOMO	1649	CA	TRP	R	163	43.260	-6.139	0.061	1.00	71.19	R	C
ÁTOMO	1650	CB	TRP	R	163	44.636	-6.324	0.712	1.00	71.77	R	C
ÁTOMO	1651	CG	TRP	R	163	44.601	-5.849	2.122	1.00	71.55	R	C
ÁTOMO	1652	CD2	TRP	R	163	45.077	-4.565	2.603	1.00	71.76	R	C
ÁTOMO	1653	CE2	TRP	R	163	44.873	-4.558	4.011	1.00	71.73	R	C
ÁTOMO	1654	CE3	TRP	R	163	45.624	-3.452	1.985	1.00	72.15	R	C
ÁTOMO	1655	CD1	TRP	R	163	44.145	-6.563	3.247	1.00	71.65	R	C
ÁTOMO	1656	NE1	TRP	R	163	44.281	-5.856	4.401	1.00	72.21	R	N
ÁTOMO	1657	CZ2	TRP	R	163	45.232	-3.438	4.748	1.00	72.72	R	C
ÁTOMO	1658	CZ3	TRP	R	163	45.982	-2.334	2.723	1.00	72.41	R	C
ÁTOMO	1659	CH2	TRP	R	163	45.778	-2.329	4.115	1.00	72.89	R	C
ÁTOMO	1660	C	TRP	R	163	42.820	-4.677	0.156	1.00	72.31	R	C
ÁTOMO	1661	O	TRP	R	163	43.177	-3.825	-0.642	1.00	72.04	R	O
ÁTOMO	1662	N	HIS	R	164	41.961	-4.446	1.146	1.00	73.99	R	N
ÁTOMO	1663	CA	HIS	R	164	41.637	-3.058	1.506	1.00	76.09	R	C
ÁTOMO	1664	CB	HIS	R	164	40.202	-2.794	1.057	1.00	77.41	R	C
ÁTOMO	1665	CG	HIS	R	164	39.841	-1.359	1.320	1.00	78.45	R	C
ÁTOMO	1666	CD2	HIS	R	164	40.543	-0.215	0.941	1.00	78.66	R	C
ÁTOMO	1667	ND1	HIS	R	164	38.685	-0.978	1.921	1.00	78.84	R	N
ÁTOMO	1668	CE1	HIS	R	164	38.691	0.369	1.887	1.00	77.98	R	C

ÁTOMO	1669	NE2	HIS	R	164	39.792	0.853	1.305	1.00	78.68	R	N
ÁTOMO	1670	C	HIS	R	164	41.748	-2.882	3.018	1.00	76.77	R	C
ÁTOMO	1671	O	HIS	R	164	41.503	-3.805	3.773	1.00	77.29	R	O
ÁTOMO	1672	N	ARG	R	165	42.179	-1.699	3.483	1.00	77.80	R	N
ÁTOMO	1673	CA	ARG	R	165	42.376	-1.632	4.928	1.00	79.12	R	C
ÁTOMO	1674	CB	ARG	R	165	42.925	-0.263	5.317	1.00	77.22	R	C
ÁTOMO	1675	C	ARG	R	165	41.073	-1.920	5.680	1.00	80.09	R	C
ÁTOMO	1676	O	ARG	R	165	41.038	-2.137	6.877	1.00	80.16	R	O
ÁTOMO	1677	N	SER	R	166	39.956	-1.909	4.929	1.00	81.21	R	N
ÁTOMO	1678	CA	SER	R	166	38.685	-2.195	5.589	1.00	82.09	R	C
ÁTOMO	1679	CB	SER	R	166	37.532	-1.790	4.665	1.00	82.11	R	C
ÁTOMO	1680	OG	SER	R	166	36.554	-1.082	5.425	1.00	83.17	R	O
ÁTOMO	1681	C	SER	R	166	38.567	-3.676	5.946	1.00	83.27	R	C
ÁTOMO	1682	O	SER	R	166	37.607	-4.135	6.554	1.00	83.85	R	O
ÁTOMO	1683	N	LEU	R	167	39.580	-4.444	5.517	1.00	83.51	R	N
ÁTOMO	1684	CA	LEU	R	167	39.570	-5.871	5.804	1.00	83.71	R	C
ÁTOMO	1685	CB	LEU	R	167	39.571	-6.633	4.480	1.00	84.23	R	C
ÁTOMO	1686	CG	LEU	R	167	38.694	-5.962	3.422	1.00	84.47	R	C
ÁTOMO	1687	CD1	LEU	R	167	39.283	-6.081	2.015	1.00	84.80	R	C
ÁTOMO	1688	CD2	LEU	R	167	37.288	-6.558	3.353	1.00	85.44	R	C
ÁTOMO	1689	C	LEU	R	167	40.770	-6.292	6.650	1.00	84.08	R	C
ÁTOMO	1690	O	LEU	R	167	41.704	-5.535	6.885	1.00	84.12	R	O
ÁTOMO	1691	N	GLU	R	168	40.699	-7.540	7.146	1.00	84.44	R	N
ÁTOMO	1692	CA	GLU	R	168	41.780	-8.060	7.970	1.00	84.36	R	C
ÁTOMO	1693	CB	GLU	R	168	41.167	-9.007	9.000	1.00	83.89	R	C
ÁTOMO	1694	C	GLU	R	168	42.805	-8.814	7.124	1.00	84.52	R	C
ÁTOMO	1695	O	GLU	R	168	44.001	-8.559	7.171	1.00	84.96	R	O
ÁTOMO	1696	N	LYS	R	169	42.272	-9.807	6.400	1.00	84.09	R	N
ÁTOMO	1697	CA	LYS	R	169	43.134	-10.648	5.594	1.00	83.45	R	C
ÁTOMO	1698	CB	LYS	R	169	42.898	-12.101	6.008	1.00	83.34	R	C
ÁTOMO	1699	C	LYS	R	169	42.830	-10.475	4.108	1.00	82.71	R	C
ÁTOMO	1700	O	LYS	R	169	41.740	-10.102	3.691	1.00	83.06	R	O
ÁTOMO	1701	N	ILE	R	170	43.881	-10.711	3.315	1.00	81.31	R	N
ÁTOMO	1702	CA	ILE	R	170	43.701	-10.725	1.882	1.00	80.46	R	C
ÁTOMO	1703	CB	ILE	R	170	44.982	-11.284	1.273	1.00	79.74	R	C
ÁTOMO	1704	CG2	ILE	R	170	44.812	-11.438	-0.252	1.00	79.29	R	C
ÁTOMO	1705	CG1	ILE	R	170	46.135	-10.307	1.515	1.00	79.81	R	C
ÁTOMO	1706	CD1	ILE	R	170	47.446	-11.014	1.859	1.00	78.12	R	C
ÁTOMO	1707	C	ILE	R	170	42.504	-11.587	1.506	1.00	80.50	R	C
ÁTOMO	1708	O	ILE	R	170	42.231	-12.629	2.089	1.00	80.85	R	O
ÁTOMO	1709	N	HIS	R	171	41.736	-11.076	0.529	1.00	80.29	R	N
ÁTOMO	1710	CA	HIS	R	171	40.561	-11.808	0.038	1.00	80.32	R	C
ÁTOMO	1711	CB	HIS	R	171	39.373	-10.829	-0.014	1.00	80.10	R	C
ÁTOMO	1712	CG	HIS	R	171	38.684	-10.796	1.332	1.00	80.18	R	C
ÁTOMO	1713	CD2	HIS	R R	171	37.447	-11.354	1.702	1.00	80.29	R	C
ÁTOMO	1714	ND1	HIS	R	171	39.175	-10.114	2.395	1.00	81.10	R	N
ÁTOMO	1715	CE1	HIS	R	171	38.260	-10.249	3.376	1.00	80.58	R	C
ÁTOMO	1716	NE2	HIS	R	171	37.215	-10.986	2.991	1.00	80.44	R	N
ÁTOMO	1717	C	HIS	R	171	40.793	-12.475	-1.345	1.00	81.25	R	C
ÁTOMO	1718	O	HIS	R	171	41.752	-12.194	-2.063	1.00	80.73	R	O
ÁTOMO	1719	N	GLN	R	172	39.891	-13.443	-1.669	1.00	82.69	R	N
ÁTOMO	1720	CA	GLN	R	172	39.959	-14.228	-2.915	1.00	84.35	R	C
ÁTOMO	1721	CB	GLN	R	172	39.799	-15.694	-2.481	1.00	85.66	R	C
ÁTOMO	1722	CG	GLN	R	172	41.095	-16.484	-2.365	1.00	86.79	R	C
ÁTOMO	1723	CD	GLN	R	172	40.758	-17.862	-1.831	1.00	87.26	R	C
ÁTOMO	1724	OE1	GLN	R	172	39.851	-18.545	-2.282	1.00	86.59	R	O
ÁTOMO	1725	NE2	GLN	R	172	41.512	-18.244	-0.781	1.00	86.84	R	N
ÁTOMO	1726	C	GLN	R	172	38.770	-13.889	-3.826	1.00	85.75	R	C
ÁTOMO	1727	O	GLN	R	172	37.613	-14.003	-3.434	1.00	86.57	R	O
ÁTOMO	1728	N	CYS	R	173	39.045	-13.461	-5.085	1.00	87.06	R	N

ÁTOMO	1729	CA	CYS	R	173	37.947	-13.228	-6.011	1.00	88.58	R	C
ÁTOMO	1730	C	CYS	R	173	37.521	-14.514	-6.734	1.00	89.45	R	C
ÁTOMO	1731	O	CYS	R	173	38.331	-15.375	-7.055	1.00	89.20	R	O
ÁTOMO	1732	CB	CYS	R	173	38.413	-12.180	-7.026	1.00	88.12	R	C
ÁTOMO	1733	SG	CYS	R	173	37.186	-11.883	-8.320	1.00	88.29	R	S
ÁTOMO	1734	N	GLU	R	174	36.183	-14.625	-6.935	1.00	91.09	R	N
ÁTOMO	1735	CA	GLU	R	174	35.649	-15.956	-7.092	1.00	93.06	R	C
ÁTOMO	1736	CB	GLU	R	174	35.515	-16.476	-5.655	1.00	92.78	R	C
ÁTOMO	1737	C	GLU	R	174	34.294	-16.121	-7.778	1.00	94.86	R	C
ÁTOMO	1738	O	GLU	R	174	33.315	-16.337	-7.070	1.00	95.21	R	O
ÁTOMO	1739	N	ASN	R	175	34.122	-15.983	-9.167	1.00	96.51	R	N
ÁTOMO	1740	CA	ASN	R	175	34.649	-15.056	-10.196	1.00	98.10	R	C
ÁTOMO	1741	CB	ASN	R	175	34.102	-13.645	-10.052	1.00	97.69	R	C
ÁTOMO	1742	CG	ASN	R	175	32.619	-13.789	-9.833	1.00	98.11	R	C
ÁTOMO	1743	OD1	ASN	R	175	31.941	-14.534	-10.541	1.00	98.85	R	O
ÁTOMO	1744	ND2	ASN	R	175	32.123	-13.187	-8.731	1.00	97.61	R	N
ÁTOMO	1745	C	ASN	R	175	34.794	-15.623	-11.650	1.00	98.91	R	C
ÁTOMO	1746	O	ASN	R	175	33.903	-16.274	-12.194	1.00	99.60	R	O
ÁTOMO	1747	N	ILE	R	176	35.935	-15.304	-12.313	1.00	99.69	R	N
ÁTOMO	1748	CA	ILE	R	176	36.241	-16.076	-13.533	1.00	100.40	R	C
ÁTOMO	1749	CB	ILE	R	176	36.442	-17.553	-13.218	1.00	101.08	R	C
ÁTOMO	1750	CG2	ILE	R	176	37.888	-17.994	-13.527	1.00	101.79	R	C
ÁTOMO	1751	CG1	ILE	R	176	36.217	-17.776	-11.719	1.00	100.88	R	C
ÁTOMO	1752	CD1	ILE	R	176	35.835	-19.220	-11.403	1.00	101.03	R	C
ÁTOMO	1753	C	ILE	R	176	37.282	-15.435	-14.470	1.00	100.57	R	C
ÁTOMO	1754	O	ILE	R	176	38.471	-15.481	-14.194	1.00	100.09	R	O
ÁTOMO	1755	N	PHE	R	177	36.851	-14.872	-15.645	1.00	100.98	R	N
ÁTOMO	1756	CA	PHE	R	177	35.533	-15.078	-16.267	1.00	101.31	R	C
ÁTOMO	1757	CB	PHE	R	177	34.526	-14.079	-15.684	1.00	101.94	R	C
ÁTOMO	1758	CG	PHE	R	177	34.896	-12.665	-16.040	1.00	103.06	R	C
ÁTOMO	1759	CD1	PHE	R	177	34.852	-12.249	-17.367	1.00	103.48	R	C
ÁTOMO	1760	CD2	PHE	R	177	35.120	-11.739	-15.031	1.00	103.36	R	C
ÁTOMO	1761	CE1	PHE	R	177	35.012	-10.906	-17.678	1.00	102.99	R	C
ÁTOMO	1762	CE2	PHE	R	177	35.275	-10.393	-15.350	1.00	103.34	R	C
ÁTOMO	1763	CZ	PHE	R	177	35.217	-9.969	-16.673	1.00	103.07	R	C
ÁTOMO	1764	C	PHE	R	177	35.636	-14.881	-17.792	1.00	101.05	R	C
ÁTOMO	1765	O	PHE	R	177	34.670	-14.993	-18.554	1.00	100.84	R	O
ÁTOMO	1766	N	ARG	R	178	36.857	-14.522	-18.227	1.00	101.03	R	N
ÁTOMO	1767	CA	ARG	R	178	37.185	-14.362	-19.648	1.00	101.14	R	C
ÁTOMO	1768	CB	ARG	R	178	37.436	-15.735	-20.265	1.00	101.04	R	C
ÁTOMO	1769	CG	ARG	R	178	38.351	-15.629	-21.483	1.00	101.47	R	C
ÁTOMO	1770	CD	ARG	R	178	39.345	-16.797	-21.562	1.00	102.67	R	C
ÁTOMO	1771	NE	ARG	R	178	38.683	-17.951	-22.159	1.00	104.10	R	N
ÁTOMO	1772	CZ	ARG	R	178	38.991	-18.243	-23.433	1.00	104.33	R	C
ÁTOMO	1773	NH1	ARG	R	178	40.221	-18.048	-23.871	1.00	104.55	R	N
ÁTOMO	1774	NH2	ARG	R	178	37.999	-18.428	-24.310	1.00	104.03	R	N
ÁTOMO	1775	C	ARG	R	178	36.151	-13.580	-20.471	1.00	101.18	R	C
ÁTOMO	1776	O	ARG	R	178	34.970	-13.903	-20.532	1.00	101.57	R	O
ÁTOMO	1777	N	GLU	R	179	36.638	-12.501	-21.117	1.00	100.71	R	N
ÁTOMO	1778	CA	GLU	R	179	35.773	-11.734	-22.012	1.00	100.14	R	C
ÁTOMO	1779	CB	GLU	R	179	35.405	-10.413	-21.330	1.00	100.45	R	C
ÁTOMO	1780	CG	GLU	R	179	33.999	-10.453	-20.727	1.00	100.59	R	C
ÁTOMO	1781	CD	GLU	R	179	33.678	-9.128	-20.073	1.00	100.07	R	C
ÁTOMO	1782	OE1	GLU	R	179	34.583	-8.325	-19.891	1.00	100.09	R	O
ÁTOMO	1783	OE2	GLU	R	179	32.512	-8.909	-19.746	1.00	99.84	R	O
ÁTOMO	1784	C	GLU	R	179	36.455	-11.453	-23.353	1.00	99.72	R	C
ÁTOMO	1785	O	GLU	R	179	36.833	-10.331	-23.662	1.00	99.74	R	O
ÁTOMO	1786	N	GLY	R	180	36.592	-12.538	-24.139	1.00	98.92	R	N
ÁTOMO	1787	CA	GLY	R	180	37.421	-12.461	-25.343	1.00	97.33	R	C

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ÁTOMO	1788	C	GLY	R	180	38.812	-13.017	-25.044	1.00	96.44	R	C
ÁTOMO	1789	O	GLY	R	180	38.987	-14.171	-24.678	1.00	96.81	R	O
ÁTOMO	1790	N	GLN	R	181	39.818	-12.151	-25.221	1.00	95.64	R	N
ÁTOMO	1791	CA	GLN	R	181	41.190	-12.569	-24.929	1.00	94.60	R	C
ÁTOMO	1792	CB	GLN	R	181	42.135	-11.897	-25.932	1.00	93.48	R	C
ÁTOMO	1793	CG	GLN	R	181	43.453	-12.656	-26.116	1.00	91.79	R	C
ÁTOMO	1794	CD	GLN	R	181	44.435	-11.767	-26.849	1.00	91.05	R	C
ÁTOMO	1795	OE1	GLN	R	181	45.600	-12.075	-27.043	1.00	90.47	R	O
ÁTOMO	1796	NE2	GLN	R	181	43.907	-10.593	-27.251	1.00	91.76	R	N
ÁTOMO	1797	C	GLN	R	181	41.594	-12.197	-23.501	1.00	94.47	R	C
ÁTOMO	1798	O	GLN	R	181	42.564	-12.693	-22.947	1.00	94.04	R	O
ÁTOMO	1799	N	TYR	R	182	40.835	-11.252	-22.922	1.00	93.91	R	N
ÁTOMO	1800	CA	TYR	R	182	41.114	-10.850	-21.550	1.00	92.81	R	C
ÁTOMO	1801	CB	TYR	R	182	40.414	-9.515	-21.292	1.00	93.02	R	C
ÁTOMO	1802	CG	TYR	R	182	40.892	-8.460	-22.224	1.00	92.82	R	C
ÁTOMO	1803	CD1	TYR	R	182	39.960	-7.756	-22.982	1.00	92.48	R	C
ÁTOMO	1804	CE1	TYR	R	182	40.309	-6.563	-23.595	1.00	92.44	R	C
ÁTOMO	1805	CD2	TYR	R	182	42.199	-7.976	-22.127	1.00	93.13	R	C
ÁTOMO	1806	CE2	TYR	R	182	42.553	-6.787	-22.749	1.00	92.71	R	C
ÁTOMO	1807	CZ	TYR	R	182	41.613	-6.079	-23.476	1.00	92.01	R	C
ÁTOMO	1808	OH	TYR	R	182	41.935	-4.857	-24.029	1.00	91.15	R	O
ÁTOMO	1809	C	TYR	R	182	40.586	-11.879	-20.547	1.00	92.26	R	C
ÁTOMO	1810	O	TYR	R	182	39.683	-12.660	-20.826	1.00	92.36	R	O
ÁTOMO	1811	N	PHE	R	183	41.217	-11.890	-19.356	1.00	91.37	R	N
ÁTOMO	1812	CA	PHE	R	183	40.649	-12.619	-18.222	1.00	90.25	R	C
ÁTOMO	1813	CB	PHE	R	183	41.700	-13.609	-17.704	1.00	90.91	R	C
ÁTOMO	1814	CG	PHE	R	183	41.817	-14.796	-18.620	1.00	91.41	R	C
ÁTOMO	1815	CD1	PHE	R	183	42.561	-14.689	-19.789	1.00	91.78	R	C
ÁTOMO	1816	CD2	PHE	R	183	41.313	-16.027	-18.226	1.00	91.12	R	C
ÁTOMO	1817	CE1	PHE	R	183	42.812	-15.822	-20.556	1.00	91.36	R	C
ÁTOMO	1818	CE2	PHE	R	183	41.570	-17.158	-18.999	1.00	91.13	R	C
ÁTOMO	1819	CZ	PHE	R	183	42.321	-17.061	-20.164	1.00	91.26	R	C
ÁTOMO	1820	C	PHE	R	183	40.282	-11.627	-17.109	1.00	89.14	R	C
ÁTOMO	1821	O	PHE	R	183	40.918	-10.596	-16.931	1.00	88.98	R	0
ÁTOMO	1822	N	GLY	R	184	39.199	-11.934	-16.373	1.00	87.72	R	N
ÁTOMO	1823	CA	GLY	R	184	38.721	-10.948	-15.388	1.00	86.34	R	C
ÁTOMO	1824	C	GLY	R	184	38.097	-11.592	-14.131	1.00	85.86	R	C
ÁTOMO	1825	O	GLY	R	184	38.003	-12.806	-14.001	1.00	86.34	R	O
ÁTOMO	1826	N	CYS	R	185	37.690	-10.718	-13.175	1.00	85.14	R	N
ÁTOMO	1827	CA	CYS	R	185	37.169	-11.211	-11.888	1.00	83.61	R	C
ÁTOMO	1828	C	CYS	R	185	36.513	-10.091	-11.058	1.00	81.56	R	C
ÁTOMO	1829	O	CYS	R	185	37.072	-9.024	-10.855	1.00	81.30	R	O
ÁTOMO	1830	CB	CYS	R	185	38.351	-11.784	-11.104	1.00	85.14	R	C
ÁTOMO	1831	SG	CYS	R	185	37.842	-12.999	-9.871	1.00	89.00	R	S
ÁTOMO	1832	N	SER	R	186	35.267	-10.349	-10.589	1.00	78.90	R	N
ÁTOMO	1833	CA	SER	R	186	34.553	-9.318	-9.830	1.00	76.87	R	C
ÁTOMO	1834	CB	SER	R	186	33.162	-9.134	-10.442	1.00	75.93	R	C
ÁTOMO	1835	OG	SER	R	186	33.288	-8.740	-11.808	1.00	75.39	R	O
ÁTOMO	1836	C	SER	R	186	34.414	-9.655	-8.338	1.00	76.01	R	C
ÁTOMO	1837	O	SER	R	186	34.220	-10.797	-7.939	1.00	77.16	R	O
ÁTOMO	1838	N	PHE	R	187	34.558	-8.610	-7.499	1.00	74.92	R	N
ÁTOMO	1839	CA	PHE	R	187	34.277	-8.787	-6.077	1.00	74.79	R	C
ÁTOMO	1840	CB	PHE	R	187	35.596	-9.010	-5.328	1.00	73.25	R	C
ÁTOMO	1841	CG	PHE	R	187	36.588	-7.932	-5.661	.1.00	72.03	R	C
ÁTOMO	1842	CD1	PHE	R	187	37.503	-8.143	-6.686	1.00	70.77	R	C
ÁTOMO	1843	CD2	PHE	R	187	36.720	-6.833	-4.825	1.00	71.76	R	C
ÁTOMO	1844	CE1	PHE	R	187	38.562	-7.262	-6.861	1.00	70.31	R	C
ÁTOMO	1845	CE2	PHE	R	187	37.785	-5.952	-5.009	1.00	70.79	R	C

ÁTOMO	1846	CZ	PHE	R	187	38.709	-6.164	-6.023	1.00	70.25	R	C
ÁTOMO	1847	C	PHE	R	187	33.533	-7.590	-5.486	1.00	75.47	R	C
ÁTOMO	1848	O	PHE	R	187	33.632	-6.461	-5.948	1.00	75.75	R	O
ÁTOMO	1849	N	ASP	R	188	32.732	-7.881	-4.446	1.00	76.38	R	N
ÁTOMO	1850	CA	ASP	R	188	31.943	-6.820	-3.832	1.00	77.29	R	C
ÁTOMO	1851	CB	ASP	R	188	30.992	-7.454	-2.819	1.00	77.97	R	C
ÁTOMO	1852	CG	ASP	R	188	29.933	-8.252	-3.559	1.00	79.71	R	C
ÁTOMO	1853	OD1	ASP	R	188	29.265	-9.057	-2.910	1.00	79.83	R	O
ÁTOMO	1854	OD2	ASP	R	188	29.792	-8.069	-4.765	1.00	80.40	R	O
ÁTOMO	1855	C	ASP	R	188	32.812	-5.775	-3.137	1.00	78.25	R	C
ÁTOMO	1856	O	ASP	R	188	33.707	-6.088	-2.352	1.00	77.98	R	O
ÁTOMO	1857	N	LEU	R	189	32.531	-4.502	-3.479	1.00	79.81	R	N
ÁTOMO	1858	CA	LEU	R	189	33.321	-3.580	-2.691	1.00	81.28	R	C
ÁTOMO	1859	CB	LEU	R	189	34.356	-2.914	-3.632	1.00	79.95	R	C
ÁTOMO	1860	CG	LEU	R	189	35.761	-2.840	-3.015	1.00	78.56	R	C
ÁTOMO	1861	CD1	LEU	R	189	36.648	-1.751	-3.654	1.00	77.86	R	C
ÁTOMO	1862	CD2	LEU	R	189	35.742	-2.541	-1.516	1.00	78.01	R	C
ÁTOMO	1863	C	LEU	R	189	32.391	-2.574	-2.088	1.00	83.89	R	C
ÁTOMO	1864	O	LEU	R	189	32.422	-1.413	-2.462	1.00	85.14	R	O
ÁTOMO	1865	N	THR	R	190	31.453	-3.061	-1.220	1.00	85.99	R	N
ÁTOMO	1866	CA	THR	R	190	30.489	-2.291	-0.756	1.00	89.32	R	C
ÁTOMO	1867	CB	THR	R	190	29.056	-2.733	-0.767	1.00	90.54	R	C
ÁTOMO	1868	OG1	THR	R	190	28.694	-3.084	-2.088	1.00	92.85	R	O
ÁTOMO	1869	CG2	THR	R	190	28.164	-1.538	-0.343	1.00	90.98	R	C
ÁTOMO	1870	C	THR	R	190	30.843	-1.908	0.579	1.00	90.52	R	C
ÁTOMO	1871	O	THR	R	190	31.437	-2.489	1.468	1.00	89.93	R	O
ÁTOMO	1872	N	LYS	R	191	30.407	-0.782	0.535	1.00	91.79	R	N
ÁTOMO	1873	CA	LYS	R	191	30.894	0.095	1.314	1.00	92.71	R	C
ÁTOMO	1874	CB	LYS	R	191	32.426	-0.031	1.665	1.00	92.75	R	C
ÁTOMO	1875	CG	LYS	R	191	33.388	-0.275	0.516	1.00	93.39	R	C
ÁTOMO	1876	CD	LYS	R	191	34.855	-0.386	1.011	1.00	94.00	R	C
ÁTOMO	1877	CE	LYS	R	191	34.968	-0.069	2.504	1.00	94.65	R	C
ÁTOMO	1878	NZ	LYS	R	191	36.364	0.035	2.909	1.00	95.24	R	N
ÁTOMO	1879	C	LYS	R	191	30.462	1.359	0.829	1.00	93.06	R	C
ÁTOMO	1880	O	LYS	R	191	30.062	1.604	-0.322	1.00	94.38	R	0
ÁTOMO	1881	N	VAL	R	192	30.297	1.991	1.873	1.00	93.44	R	N
ÁTOMO	1882	CA	VAL	R	192	31.280	2.942	2.087	1.00	93.53	R	C
ÁTOMO	1883	CB	VAL	R	192	31.435	3.571	0.713	1.00	93.72	R.	C
ÁTOMO	1884	CG1	VAL	R	192	30.322	4.534	0.286	1.00	92.98	R	C
ÁTOMO	1885	CG2	VAL	R	192	32.731	4.246	0.833	1.00	93.28	R	C
ÁTOMO	1886	C	VAL	R	192	30.689	3.764	3.176	1.00	93.63	R	C
ÁTOMO	1887	O	VAL	R	192	29.651	3.300	3.700	1.00	93.63	R	O
ÁTOMO	1888	N	SER	R	195	34.830	5.067	5.044	1.00	93.32	R	N
ÁTOMO	1889	CA	SER	R	195	35.900	5.619	5.890	1.00	93.73	R	C
ÁTOMO	1890	CB	SER	R	195	35.430	6.367	7.141	1.00	92.62	R	C
ÁTOMO	1891	C	SER	R	195	37.171	6.115	5.185	1.00	92.89	R	C
ÁTOMO	1892	O	SER	R	195	37.818	7.054	5.590	1.00	92.98	R	O
ÁTOMO	1893	N	SER	R	196	37.582	5.349	4.160	1.00	92.61	R	N
ÁTOMO	1894	CA	SER	R	196	38.282	5.902	3.006	1.00	92.21	R	C
ÁTOMO	1895	CB	SER	R	196	39.563	6.681	3.449	1.00	92.18	R	C
ÁTOMO	1896	C	SER	R	196	38.603	4.704	2.105	1.00	92.05	R	C
ÁTOMO	1897	O	SER	R	196	38.832	3.608	2.597	1.00	91.91	R	O
ÁTOMO	1898	N	PHE	R	197	38.653	4.865	0.787	1.00	91.69	R	N
ÁTOMO	1899	CA	PHE	R	197	39.379	6.028	0.271	1.00	89.94	R	C
ÁTOMO	1900	CB	PHE	R	197	38.673	6.751	-0.864	1.00	89.28	R	C
ÁTOMO	1901	C	PHE	R	197	40.855	5.709	0.058	1.00	89.62	R	C
ÁTOMO	1902	O	PHE	R	197	41.507	6.163	-0.868	1.00	89.86	R	O
ÁTOMO	1903	N	PHE	R	198	41.368	4.919	1.039	1.00	88.15	R	N
ÁTOMO	1904	CA	PHE	R	198	42.553	4.082	0.851	1.00	87.68	R	C

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ÁTOMO	1905	CB	PHE	R	198	42.844	3.415	2.196	1.00	88.99	R	C
ÁTOMO	1906	CG	PHE	R	198	42.938	4.418	3.273	1.00	90.06	R	C
ÁTOMO	1907	CD1	PHE	R	198	42.004	4.407	4.300	1.00	90.80	R	C
ÁTOMO	1908	CD2	PHE	R	198	44.030	5.260	3.324	1.00	90.39	R	C
ÁTOMO	1909	CE1	PHE	R	198	42.162	5.265	5.381	1.00	91.26	R	C
ÁTOMO	1910	CE2	PHE	R	198	44.185	6.111	4.405	1.00	90.95	R	C
ÁTOMO	1911	CZ	PHE	R	198	43.260	6.120	5.439	1.00	91.49	R	C
ÁTOMO	1912	C	PHE	R	198	42.231	2.909	-0.085	1.00	86.57	R	C
ÁTOMO	1913	O	PHE	R	198	41.270	2.156	0.109	1.00	86.67	R	O
ÁTOMO	1914	N	GLU	R	199	43.093	2.726	-1.119	1.00	84.73	R	N
ÁTOMO	1915	CA	GLU	R	199	42.683	1.886	-2.249	1.00	82.61	R	C
ÁTOMO	1916	CB	GLU	R	199	43.575	2.234	-3.415	1.00	83.35	R	C
ÁTOMO	1917	CG	GLU	R	199	43.829	3.732	-3.497	1.00	85.78	R	C
ÁTOMO	1918	CD	GLU	R	199	45.319	3.957	-3.496	1.00	88.88	R	C
ÁTOMO	1919	OE1	GLU	R	199	46.028	3.143	-2.922	1.00	91.39	R	O
ÁTOMO	1920	OE2	GLU	R	199	45.762	4.943	-4.082	1.00	88.27	R	O
ÁTOMO	1921	C	GLU	R	199	42.773	0.369	-1.990	1.00	79.66	R	C
ÁTOMO	1922	O	GLU	R	199	43.549	-0.104	-1.171	1.00	80.10	R	O
ÁTOMO	1923	N	GLN	R	200	41.885	-0.402	-2.688	1.00	77.56	R	N
ÁTOMO	1924	CA	GLN	R	200	42.204	-1.807	-2.879	1.00	75.22	R	C
ÁTOMO	1925	CB	GLN	R	200	41.174	-2.437	-3.820	1.00	74.17	R	C
ÁTOMO	1926	C	GLN	R	200	43.612	-1.900	-3.458	1.00	73.89	R	C
ÁTOMO	1927	O	GLN	R	200	43.967	-1.288	-4.445	1.00	73.99	R	O
ÁTOMO	1928	N	HIS	R	201	44.285	-2.810	-2.734	1.00	72.01	R	N
ÁTOMO	1929	CA	HIS	R	201	45.391	-3.514	-3.381	1.00	69.70	R	C
ÁTOMO	1930	CB	HIS	R	201	46.851	-3.159	-3.012	1.00	72.07	R	C
ÁTOMO	1931	CG	HIS	R	201	47.274	-3.528	-1.597	1.00	74.38	R	C
ÁTOMO	1932	CD2	HIS	R	201	46.774	-2.989	-0.388	1.00	75.58	R	C
ÁTOMO	1933	ND1	HIS	R	201	48.592	-3.870	-1.379	1.00	75.68	R	N
ÁTOMO	1934	CE1	HIS	R	201	48.907	-3.380	-0.174	1.00	75.89	R	C
ÁTOMO	1935	NE2	HIS	R	201	47.848	-2.827	0.437	1.00	76.65	R	N
ÁTOMO	1936	C	HIS	R	201	45.003	-4.779	-4.170	1.00	67.12	R	C
ÁTOMO	1937	O	HIS	R	201	44.002	-5.417	-3.872	1.00	65.87	R	O
ÁTOMO	1938	N	SER	R	202	45.751	-5.050	-5.270	1.00	65.76	R	N
ÁTOMO	1939	CA	SER	R	202	45.327	-6.188	-6.091	1.00	65.49	R	C
ÁTOMO	1940	CB	SER	R	202	44.495	-5.649	-7.263	1.00	65.59	R	C
ÁTOMO	1941	OG	SER	R	202	43.098	-5.779	-6.969	1.00	66.07	R	O
ÁTOMO	1942	C	SER	R	202	46.535	-6.973	-6.619	1.00	65.89	R	C
ÁTOMO	1943	O	SER	R	202	47.599	-6.431	-6.871	1.00	64.15	R	O
ÁTOMO	1944	N	GLN	R	203	46.327	-8.302	-6.744	1.00	66.75	R	N
ÁTOMO	1945	CA	GLN	R	203	47.399	-9.168	-7.251	1.00	67.38	R	C
ÁTOMO	1946	CB	GLN	R	203	48.204	-9.679	-6.053	1.00	66.69	R	C
ÁTOMO	1947	C	GLN	R	203	46.855	-10.371	-8.053	1.00	68.36	R	C
ÁTOMO	1948	O	GLN	R	203	45.854	-10.977	-7.702	1.00	66.91	R	O
ÁTOMO	1949	N	ILE	R	204	47.509	-10.732	-9.173	1.00	70.11	R	N
ÁTOMO	1950	CA	ILE	R	204	47.017	-11.891	-9.892	1.00	72.85	R	C
ÁTOMO	1951	CB	ILE	R	204	46.510	-11.420	-11.254	1.00	71.76	R	C
ÁTOMO	1952	C	ILE	R	204	48.130	-12.914	-10.099	1.00	74.05	R	C
ÁTOMO	1953	O	ILE	R	204	49.095	-12.693	-10.811	1.00	73.69	R	O
ÁTOMO	1954	N	MET	R	205	47.999	-14.052	-9.402	1.00	75.96	R	N
ÁTOMO	1955	CA	MET	R	205	48.967	-15.105	-9.673	1.00	78.62	R	C
ÁTOMO	1956	CB	MET	R	205	49.965	-15.225	-8.509	1.00	79.44	R	C
ÁTOMO	1957	CG	MET	R	205	49.402	-15.843	-7.222	1.00	81.81	R	C
ÁTOMO	1958	SD	MET	R	205	50.703	-16.108	-6.007	1.00	82.92	R	S
ÁTOMO	1959	CE	MET	R	205	49.674	-16.308	-4.546	1.00	82.58	R	C
ÁTOMO	1960	C	MET	R	205	48.319	-16.438	-10.013	1.00	79.83	R	C
ÁTOMO	1961	O	MET	R	205	47.111	-16.605	-10.058	1.00	79.06	R	O
ÁTOMO	1962	N	VAL	R	206	49.208	-17.383	-10.328	1.00	81.92	R	N
ÁTOMO	1963	CA	VAL	R	206	48.799	-18.755	-10.495	1.00	84.18	R	C

ÁTOMO	1964	CB	VAL	R	206	49.721	-19.384	-11.537	1.00	84.11	R	C
ÁTOMO	1965	CG1	VAL	R	206	49.508	-18.739	-12.903	1.00	84.53	R	C
ÁTOMO	1966	CG2	VAL	R	206	51.157	-19.192	-11.105	1.00	84.63	R	C
ÁTOMO	1967	C	VAL	R	206	48.967	-19.544	-9.205	1.00	85.81	R	C
ÁTOMO	1968	O	VAL	R	206	49.967	-19.462	-8.501	1.00	85.71	R	O
ÁTOMO	1969	N	LYS	R	207	47.908	-20.307	-8.873	1.00	87.72	R	N
ÁTOMO	1970	CA	LYS	R	207	48.237	-21.691	-8.645	1.00	89.82	R	C
ÁTOMO	1971	CB	LYS	R	207	46.928	-22.445	-8.381	1.00	88.83	R	C
ÁTOMO	1972	CG	LYS	R	207	45.916	-21.599	-7.591	1.00	87.18	R	C
ÁTOMO	1973	CD	LYS	R	207	44.806	-21.024	-8.473	1.00	84.32	R	C
ÁTOMO	1974	CE	LYS	R	207	43.626	-21.989	-8.659	1.00	83.21	R	C
ÁTOMO	1975	NZ	LYS	R	207	42.370	-21.243	-8.795	1.00	81.54	R	N
ÁTOMO	1976	C	LYS	R	207	48.838	-22.108	-9.996	1.00	91.87	R	C
ÁTOMO	1977	O	LYS	R	207	48.713	-21.364	-10.971	1.00	92.75	R	O
ÁTOMO	1978	N	ASP	R	208	49.540	-23.245	-10.062	1.00	93.36	R	N
ÁTOMO	1979	CA	ASP	R	208	49.966	-24.006	-8.913	1.00	94.52	R	C
ÁTOMO	1980	CB	ASP	R	208	49.743	-25.487	-9.287	1.00	95.14	R	C
ÁTOMO	1981	CG	ASP	R	208	50.314	-26.476	-8.267	1.00	94.52	R	C
ÁTOMO	1982	OD1	ASP	R	208	50.551	-26.079	-7.124	1.00	95.08	R	O
ÁTOMO	1983	OD2	ASP	R	208	50.425	-27.653	-8.606	1.00	94.46	R	O
ÁTOMO	1984	C	ASP	R	208	51.439	-23.684	-8.693	1.00	95.30	R	C
ÁTOMO	1985	O	ASP	R	208	52.313	-24.168	-9.392	1.00	95.25	R	O
ÁTOMO	1986	N	ASN	R	209	51.688	-22.736	-7.775	1.00	95.46	R	N
ÁTOMO	1987	CA	ASN	R	209	53.074	-22.593	-7.285	1.00	95.80	R	C
ÁTOMO	1988	CB	ASN	R	209	53.647	-23.981	-6.970	1.00	95.91	R	C
ÁTOMO	1989	C	ASN	R	209	53.914	-21.882	-8.310	1.00	95.80	R	C
ÁTOMO	1990	O	ASN	R	209	55.114	-21.672	-8.150	1.00	96.45	R	O
ÁTOMO	1991	N	ALA	R	210	53.272	-21.535	-9.471	1.00	94.72	R	N
ÁTOMO	1992	CA	ALA	R	210	53.984	-20.679	-10.372	1.00	94.16	R	C
ÁTOMO	1993	CB	ALA	R	210	55.324	-20.490	-9.802	1.00	93.34	R	C
ÁTOMO	1994	C	ALA	R	210	54.173	-21.188	-11.727	1.00	94.18	R	C
ÁTOMO	1995	O	ALA	R	210	54.019	-22.340	-12.136	1.00	94.20	R	O
ÁTOMO	1996	N	GLY	R	211	54.350	-20.070	-12.407	1.00	94.38	R	N
ÁTOMO	1997	CA	GLY	R	211	55.687	-19.730	-12.616	1.00	94.63	R	C
ÁTOMO	1998	C	GLY	R	211	55.979	-18.821	-13.853	1.00	95.21	R	C
ÁTOMO	1999	O	GLY	R	211	57.147	-18.479	-14.185	1.00	96.27	R	O
ÁTOMO	2000	N	LYS	R	212	54.946	-18.419	-14.628	1.00	94.97	R	N
ÁTOMO	2001	CA	LYS	R	212	53.509	-18.475	-14.380	1.00	94.25	R	C
ÁTOMO	2002	CB	LYS	R	212	52.637	-18.475	-15.650	1.00	94.92	R	C
ÁTOMO	2003	C	LYS	R	212	53.083	-17.372	-13.420	1.00	93.59	R	C
ÁTOMO	2004	O	LYS	R	212	52.082	-16.687	-13.538	1.00	93.83	R	O
ÁTOMO	2005	N	ILE	R	213	53.894	-17.246	-12.371	1.00	92.42	R	N
ÁTOMO	2006	CA	ILE	R	213	54.088	-15.920	-11.881	1.00	91.16	R	C
ÁTOMO	2007	CB	ILE	R	213	54.454	-16.057	-10.403	1.00	91.36	R	C
ÁTOMO	2008	C	ILE	R	213	55.216	-15.382	-12.781	1.00	90.27	R	C
ÁTOMO	2009	O	ILE	R	213	55.931	-16.146	-13.391	1.00	91.19	R	O
ÁTOMO	2010	N	LYS	R	214	55.449	-14.078	-12.885	1.00	88.61	R	N
ÁTOMO	2011	CA	LYS	R	214	55.517	-13.243	-11.735	1.00	86.29	R	C
ÁTOMO	2012	CB	LYS	R	214	56.288	-12.003	-12.189	1.00	86.22	R	C
ÁTOMO	2013	C	LYS	R	214	54.163	-12.841	-11.268	1.00	84.26	R	C
ÁTOMO	2014	O	LYS	R	214	53.269	-12.542	-12.049	1.00	84.28	R	O
ÁTOMO	2015	N	PRO	R	215	53.988	-12.879	-9.968	1.00	81.59	R	N
ÁTOMO	2016	CD	PRO	R	215	54.698	-13.643	-8.962	1.00	80.19	R	C
ÁTOMO	2017	CA	PRO	R	215	52.980	-12.057	-9.392	1.00	79.54	R	C
ÁTOMO	2018	CB	PRO	R	215	53.302	-11.929	-7.903	1.00	80.09	R	C
ÁTOMO	2019	CG	PRO	R	215	54.360	-12.976	-7.554	1.00	80.43	R	C
ÁTOMO	2020	C	PRO	R	215	53.026	-10.687	-10.110	1.00	77.50	R	C
ÁTOMO	2021	O	PRO	R	215	54.099	-10.107	-10.259	1.00	77.69	R	O
ÁTOMO	2022	N	SER	R	216	51.828	-10.243	-10.616	1.00	75.99	R	N
ÁTOMO	2023	CA	SER	R	216	51.660	-8.826	-11.042	1.00	74.40	R	C
ÁTOMO	2024	CB	SER	R	216	51.054	-8.795	-12.451	1.00	74.52	R	C
ÁTOMO	2025	OG	SER	R	216	51.361	-7.546	-13.070	1.00	75.58	R	O

ÁTOMO	2026	C	SER	R	216	50.712	-8.058	-10.081	1.00	73.20	R	C
ÁTOMO	2027	O	SER	R	216	49.594	-8.459	-9.784	1.00	72.12	R	O
ÁTOMO	2028	N	PHE	R	217	51.253	-6.957	-9.506	1.00	72.00	R	N
ÁTOMO	2029	CA	PHE	R	217	50.463	-6.155	-8.580	1.00	71.16	R	C
ÁTOMO	2030	CB	PHE	R	217	51.351	-5.718	-7.410	1.00	71.05	R	C
ÁTOMO	2031	CG	PHE	R	217	52.005	-6.881	-6.740	1.00	71.64	R	C
ÁTOMO	2032	CD1	PHE	R	217	53.247	-7.331	-7.192	1.00	72.43	R	C
ÁTOMO	2033	CD2	PHE	R	217	51.379	-7.498	-5.662	1.00	71.96	R	C
ÁTOMO	2034	CE1	PHE	R	217	53.872	-8.369	-6.543	1.00	71.92	R	C
ÁTOMO	2035	CE2	PHE	R	217	52.024	-8.545	-5.008	1.00	72.65	R	C
ÁTOMO	2036	CZ	PHE	R	217	53.284	-8.979	-5.431	1.00	72.45	R	C
ÁTOMO	2037	C	PHE	R	217	49.876	-4.897	-9.226	1.00	69.71	R	C
ÁTOMO	2038	O	PHE	R	217	50.434	-4.318	-10.167	1.00	69.81	R	O
ÁTOMO	2039	N	ASN	R	218	48.709	-4.460	-8.796	1.00	69.22	R	N
ÁTOMO	2040	CA	ASN	R	218	48.378	-3.039	-9.002	1.00	67.82	R	C
ÁTOMO	2041	CB	ASN	R	218	47.499	-3.078	-10.262	1.00	68.56	R	C
ÁTOMO	2042	CG	ASN	R	218	47.411	-1.735	-11.083	1.00	69.14	R	C
ÁTOMO	2043	OD1	ASN	R	218	46.282	-1.290	-11.316	1.00	68.24	R	O
ÁTOMO	2044	ND2	ASN	R	218	48.550	-1.234	-11.638	1.00	69.11	R	N
ÁTOMO	2045	C	ASN	R	218	47.685	-2.335	-7.829	1.00	67.04	R	C
ÁTOMO	2046	O	ASN	R	218	46.882	-2.948	-7.054	1.00	67.27	R	O
ÁTOMO	2047	N	ILE	R	219	47.882	-1.008	-7.739	1.00	65.28	R	N
ÁTOMO	2048	CA	ILE	R	219	47.072	-0.257	-6.782	1.00	62.22	R	C
ÁTOMO	2049	CB	ILE	R	219	47.889	0.718	-6.154	1.00	61.26	R	C
ÁTOMO	2050	CG2	ILE	R	219	47.089	1.423	-5.015	1.00	60.00	R	C
ÁTOMO	2051	CG1	ILE	R	219	49.245	0.171	-5.849	1.00	60.74	R	C
ÁTOMO	2052	CD1	ILE	R	219	49.142	-0.750	-4.532	1.00	61.59	R	C
ÁTOMO	2053	C	ILE	R	219	45.912	0.453	-7.427	1.00	60.80	R	C
ÁTOMO	2054	O	ILE	R	219	46.063	1.318	-8.100	1.00	60.85	R	O
ÁTOMO	2055	N	VAL	R	220	44.725	0.274	-6.972	1.00	59.05	R	N
ÁTOMO	2056	CA	VAL	R	220	43.615	0.807	-7.625	1.00	58.49	R	C
ÁTOMO	2057	CB	VAL	R	220	42.595	-0.222	-7.732	1.00	58.24	R	C
ÁTOMO	2058	CG1	VAL	R	220	41.264	0.389	-7.943	1.00	57.03	R	C
ÁTOMO	2059	CG2	VAL	R	220	42.879	-1.176	-8.784	1.00	58.45	R	C
ÁTOMO	2060	C	VAL	R	220	43.046	1.823	-6.630	1.00	59.18	R	C
ÁTOMO	2061	O	VAL	R	220	42.640	1.446	-5.576	1.00	58.01	R	O
ÁTOMO	2062	N	PRO	R	221	43.019	3.098	-6.931	1.00	59.22	R	N
ÁTOMO	2063	CD	PRO	R	221	43.756	3.682	-8.065	1.00	59.51	R	C
ÁTOMO	2064	CA	PRO	R	221	42.377	4.080	-6.016	1.00	59.09	R	C
ÁTOMO	2065	CB	PRO	R	221	43.035	5.431	-6.332	1.00	59.17	R	C
ÁTOMO	2066	CG	PRO	R	221	43.602	5.276	-7.714	1.00	60.65	R	C
ÁTOMO	2067	C	PRO	R	221	40.916	4.053	-6.228	1.00	58.55	R	C
ÁTOMO	2068	O	PRO	R	221	40.365	3.642	-7.271	1.00	57.97	R	O
ÁTOMO	2069	N	LEU	R	221	40.307	4.324	-5.110	1.00	58.65	R	N
ÁTOMO	2070	CA	LEU	R	222	38.862	4.396	-4.976	1.00	59.43	R	C
ÁTOMO	2071	CB	LEU	R	222	38.401	3.880	-3.581	1.00	59.09	R	C
ÁTOMO	2072	CG	LEU	R	222	38.866	2.400	-3.381	1.00	59.86	R	C
ÁTOMO	2073	CD1	LEU	R	222	38.159	2.093	-2.020	1.00	59.90	R	C
ÁTOMO	2074	CD2	LEU	R	222	38.427	1.312	-4.282	1.00	59.54	R	C
ÁTOMO	2075	C	LEU	R	222	38.335	5.826	-5.198	1.00	59.51	R	C
ÁTOMO	2076	O	LEU	R	222	37.141	6.194	-4.797	1.00	60.14	R	O
ÁTOMO	2077	N	THR	R	223	39.177	6.628	-5.887	1.00	59.04	R	N
ÁTOMO	2078	CA	THR	R	223	38.769	8.017	-6.126	1.00	60.53	R	C
ÁTOMO	2079	CB	THR	R	223	39.803	8.955	-5.469	1.00	60.13	R	C
ÁTOMO	2080	OG1	THR	R	223	41.112	8.701	-6.077	1.00	58.81	R	O
ÁTOMO	2081	CG2	THR	R	223	39.943	8.602	-3.942	1.00	59.96	R	C
ÁTOMO	2082	C	THR	R	223	38.586	8.352	-7.661	1.00	61.12	R	C
ÁTOMO	2083	O	THR	R	223	38.600	9.585	-7.991	1.00	62.12	R	O
ÁTOMO	2084	N	SER	R	224	38.761	7.327	-8.481	1.00	60.44	R	N

ÁTOMO	2085	CA	SER	R	224	38.631	7.431	-9.949	1.00	60.05	R	C
ÁTOMO	2086	CB	SER	R	224	39.940	7.844	-10.698	1.00	59.15	R	C
ÁTOMO	2087	OG	SER	R	224	40.975	7.094	-10.323	1.00	58.96	R	O
ÁTOMO	2088	C	SER	R	224	38.190	6.157	-10.509	1.00	60.34	R	C
ÁTOMO	2089	O	SER	R	224	37.994	5.195	-9.813	1.00	60.32	R	O
ÁTOMO	2090	N	ARG	R	225	37.989	6.198	-11.805	1.00	60.24	R	N
ÁTOMO	2091	CA	ARG	R	225	37.473	4.990	-12.554	1.00	60.06	R	C
ÁTOMO	2092	CB	ARG	R	225	38.651	4.004	-12.686	1.00	61.47	R	C
ÁTOMO	2093	CG	ARG	R	225	39.769	4.381	-13.915	1.00	62.36	R	C
ÁTOMO	2094	CD	ARG	R	225	41.050	3.677	-13.667	1.00	64.74	R	C
ÁTOMO	2095	NE	ARG	R	225	40.782	2.359	-14.166	1.00	68.21	R	N
ÁTOMO	2096	CZ	ARG	R	225	40.836	2.004	-15.433	1.00	69.76	R	C
ÁTOMO	2097	NH1	ARG	R	225	41.215	2.854	-16.406	1.00	70.99	R	N
ÁTOMO	2098	NH2	ARG	R	225	40.462	0.799	-15.754	1.00	68.97	R	N
ÁTOMO	2099	C	ARG	R	225	36.261	4.370	-11.811	1.00	58.98	R	C
ÁTOMO	2100	O	ARG	R	225	36.180	3.187	-11.400	1.00	58.24	R	O
ÁTOMO	2101	N	VAL	R	226	35.242	5.198	-11.679	1.00	58.09	R	N
ÁTOMO	2102	CA	VAL	R	226	33.963	4.757	-11.138	1.00	57.67	R	C
ÁTOMO	2103	CB	VAL	R	226	33.581	5.553	-9.962	1.00	57.05	R	C
ÁTOMO	2104	CG1	VAL	R	226	32.230	5.098	-9.412	1.00	57.97	R	C
ÁTOMO	2105	CG2	VAL	R	226	34.626	5.400	-9.019	1.00	56.30	R	C
ÁTOMO	2106	C	VAL	R	226	32.929	4.899	-12.171	1.00	57.20	R	C
ÁTOMO	2107	O	VAL	R	226	32.683	5.977	-12.594	1.00	57.69	R	O
ÁTOMO	2108	N	VAL	R	227	32.277	3.803	-12.432	1.00	56.07	R	N
ÁTOMO	2109	CA	VAL	R	227	31.173	3.677	-13.343	1.00	55.34	R	C
ÁTOMO	2110	CB	LYS	R	227	31.412	2.625	-14.480	1.00	56.41	R	C
ÁTOMO	2111	CG	LYS	R	227	30.200	2.673	-15.576	1.00	58.70	R	C
ÁTOMO	2112	CD	LYS	R	227	30.323	1.372	-16.396	1.00	60.42	R	C
ÁTOMO	2113	CE	LYS	R	227	29.315	1.215	-17.612	1.00	61.76	R	C
ÁTOMO	2114	NZ	LYS	R	227	29.788	0.113	-18.509	1.00	64.37	R	N
ÁTOMO	2115	C	LYS	R	227	29.725	3.609	-12.754	1.00	54.15	R	C
ÁTOMO	2116	O	LYS	R	227	29.399	2.631	-12.202	1.00	53.75	R	O
ÁTOMO	2117	N	PRO	R	228	28.953	4.718	-12.738	1.00	52.91	R	N
ÁTOMO	2118	CD	PRO	R	228	29.263	6.094	-13.221	1.00	51.97	R	C
ÁTOMO	2119	CA	PRO	R	228	27.716	4.690	-12.075	1.00	52.45	R	C
ÁTOMO	2120	CB	PRO	R	228	27.255	6.125	-12.135	1.00	52.90	R	C
ÁTOMO	2121	CG	PRO	R	228	28.408	7.011	-12.531	1.00	52.61	R	C
ÁTOMO	2122	C	PRO	R	228	26.782	3.857	-12.908	1.00	52.98	R	C
ÁTOMO	2123	O	PRO	R	228	26.949	3.618	-14.112	1.00	53.18	R	O
ÁTOMO	2124	N	ASP	R	229	25.778	3.467	-12.223	1.00	53.47	R	N
ÁTOMO	2125	CA	ASP	R	229	24.575	2.942	-12.833	1.00	53.83	R	C
ÁTOMO	2126	CB	ASP	R	229	23.619	2.451	-11.626	1.00	54.59	R	C
ÁTOMO	2127	CG	ASP	R	229	23.773	0.904	-11.364	1.00	55.86	R	C
ÁTOMO	2128	OD1	ASP	R	229	22.857	0.403	-10.684	1.00	56.05	R	O
ÁTOMO	2129	OD2	ASP	R	229	24.745	0.178	-11.874	1.00	54.82	R	O
ÁTOMO	2130	C	ASP	R	229	23.875	4.007	-13.620	1.00	53.79	R	C
ÁTOMO	2131	O	ASP	R	229	24.155	5.197	-13.521	1.00	54.18	R	O
ÁTOMO	2132	N	PRO	R	230	22.902	3.626	-14.361	1.00	53.39	R	N
ÁTOMO	2133	CD	PRO	R	230	22.655	2.234	-14.865	1.00	52.47	R	C
ÁTOMO	2134	CA	PRO	R	230	22.149	4.642	-15.096	1.00	51.12	R	C
ÁTOMO	2135	CB	PRO	R	230	21.618	3.824	-16.264	1.00	52.08	R	C
ÁTOMO	2136	CG	PRO	R	230	21.439	2.553	-15.823	1.00	53.31	R	C
ÁTOMO	2137	C	PRO	R	230	21.032	5.316	-14.361	1.00	50.11	R	C
ÁTOMO	2138	O	PRO	R	230	20.585	4.913	-13.309	1.00	49.02	R	O
ÁTOMO	2139	N	PRO	R	231	20.645	6.470	-14.824	1.00	49.41	R	N
ÁTOMO	2140	CD	PRO	R	231	21.209	.7.201	-15.948	1.00	47.62	R	C
ÁTOMO	2141	CA	PRO	R	231	19.558	7.155	-14.158	1.00	49.23	R	C
ÁTOMO	2142	CB	PRO	R	231	19.820	8.559	-14.487	1.00	48.55	R	C
ÁTOMO	2143	CG	PRO	R	231	20.363	8.402	-15.906	1.00	48.87	R	C

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ÁTOMO	2144	C	PRO	R	231	18.225	6.726	-14.621	1.00	50.36	R	C
ÁTOMO	2145	O	PRO	R	231	18.108	5.913	-15.535	1.00	49.57	R	O
ÁTOMO	2146	N	HIS	R	232	17.184	7.294	-14.050	1.00	51.65	R	N
ÁTOMO	2147	CA	HIS	R	232	15.898	6.777	-14.461	1.00	55.01	R	C
ÁTOMO	2148	CB	HIS	R	232	15.326	5.916	-13.298	1.00	58.75	R	C
ÁTOMO	2149	CG	HIS	R	232	16.040	4.570	-13.111	1.00	64.23	R	C
ÁTOMO	2150	CD2	HIS	R	232	17.226	4.301	-12.418	1.00	66.01	R	C
ÁTOMO	2151	ND1	HIS	R	232	15.509	3.378	-13.508	1.00	66.21	R	N
ÁTOMO	2152	CE1	HIS	R	232	16.394	2.428	-13.135	1.00	66.33	R	C
ÁTOMO	2153	NE2	HIS	R	232	17.424	2.951	-12.477	1.00	67.23	R	N
ÁTOMO	2154	C	HIS	R	232	14.984	7.987	-14.716	1.00	54.86	R	C
ÁTOMO	2155	O	HIS	R	232	14.789	8.823	-13.855	1.00	55.11	R	O
ÁTOMO	2156	N	ILE	R	233	14.490	8.130	-15.957	1.00	55.90	R	N
ÁTOMO	2157	CA	ILE	R	233	13.668	9.309	-16.230	1.00	57.90	R	C
ÁTOMO	2158	CB	ILE	R	233	13.488	9.425	-17.746	1.00	55.99	R	C
ÁTOMO	2159	CG2	ILE	R	233	12.523	10.592	-18.052	1.00	54.70	R	C
ÁTOMO	2160	CG1	ILE	R	233	14.820	9.768	-18.450	1.00	54.05	R	C
ÁTOMO	2161	CD1	ILE	R	233	14.821	9.352	-19.932	1.00	51.18	R	C
ÁTOMO	2162	C	ILE	R	233	12.296	9.207	-15.516	1.00	59.58	R	C
ÁTOMO	2163	O	ILE	R	233	11.658	8.168	-15.524	1.00	60.77	R	O
ÁTOMO	2164	N	LYS	R	234	11.885	10.306	-14.815	1.00	62.94	R	N
ÁTOMO	2165	CA	LYS	R	234	10.553	10.308	-14.137	1.00	66.66	R	C
ÁTOMO	2166	CB	LYS	R	234	10.612	11.067	-12.787	1.00	67.92	R	C
ÁTOMO	2167	CG	LYS	R	234	11.368	10.348	-11.657	1.00	71.28	R	C
ÁTOMO	2168	CD	LYS	R	234	11.312	11.168	-10.373	1.00	73.35	R	C
ÁTOMO	2169	CE	LYS	R	234	11.778	10.430	-9.129	1.00	75.77	R	C
ÁTOMO	2170	NZ	LYS	R	234	12.379	11.410	-8.240	1.00	77.02	R	N
ÁTOMO	2171	C	LYS	R	234	9.421	10.914	-15.004	1.00	68.02	R	C
ÁTOMO	2172	O	LYS	R	234	8.393	10.292	-15.238	1.00	68.12	R	O
ÁTOMO	2173	N	ASN	R	235	9.597	12.200	-15.425	1.00	69.38	R	N
ÁTOMO	2174	CA	ASN	R	235	8.652	12.746	-16.405	1.00	72.11	R	C
ÁTOMO	2175	CB	ASN	R	235	7.476	13.438	-15.735	1.00	73.57	R	C
ÁTOMO	2176	CG	ASN	R	235	6.324	13.450	-16.725	1.00	75.24	R	C
ÁTOMO	2177	OD1	ASN	R	235	5.944	12.424	-17.277	1.00	77.18	R	O
ÁTOMO	2178	ND2	ASN	R	235	5.708	14.635	-16.867	1.00	75.83	R	N
ÁTOMO	2.179	C	ASN	R	235	9.298	13.669	-17.448	1.00	72.52	R	C
ÁTOMO	2180	O	ASN	R	235	10.396	14.173	-17.321	1.00	73.58	R	O
ÁTOMO	2181	N	LEU	R	236	8.528	13.806	-18.543	1.00	72.32	R	N
ÁTOMO	2182	CA	LEU	R	236	8.782	14.830	-19.552	1.00	72.18	R	C
ÁTOMO	2183	CB	LEU	R	236	9.080	14.173	-20.879	1.00	71.35	R	C
ÁTOMO	2184	CG	LEU	R	236	10.173	13.126	-20.782	1.00	70.86	R	C
ÁTOMO	2185	CD1	LEU	R	236	10.182	12.196	-21.988	1.00	69.29	R	C
ÁTOMO	2186	CD2	LEU	R	236	11.542	13.777	-20.782	1.00	70.35	R	C
ÁTOMO	2187	C	LEU	R	236	7.523	15.666	-19.730	1.00	72.55	R	C
ÁTOMO	2188	O	LEU	R	236	6.399	15.210	-19.575	1.00	72.54	R	O
ÁTOMO	2189	N	SER	R	237	7.699	16.922	-20.088	1.00	72.99	R	N
ÁTOMO	2190	CA	SER	R	237	6.545	17.784	-20.314	1.00	74.18	R	C
ÁTOMO	2191	CB	SER	R	237	5.836	18.006	-18.979	1.00	72.83	R	C
ÁTOMO	2192	OG	SER	R	237	6.739	18.620	-18.060	1.00	72.56	R	O
ÁTOMO	2193	C	SER	R	237	6.951	19.125	-20.925	1.00	76.06	R	C
ÁTOMO	2194	O	SER	R	237	8.116	19.510	-20.949	1.00	76.03	R	O
ÁTOMO	2195	N	PHE	R	238	5.936	19.820	-21.477	1.00	77.57	R	N
ÁTOMO	2196	CA	PHE	R	238	6.223	21.066	-22.176	1.00	79.64	R	C
ÁTOMO	2197	CB	PHE	R	238	5.311	21.142	-23.399	1.00	77.79	R	C
ÁTOMO	2198	CG	PHE	R	238	5.618	20.018	-24.344	1.00	76.60	R	C
ÁTOMO	2199	CD1	PHE	R	238	4.694	18.993	-24.509	1.00	75.57	R	C
ÁTOMO	2200	CD2	PHE	R	238	6.752	20.072	-25.139	1.00	76.20	R	C
ÁTOMO	2201	CE1	PHE	R	238	4.900	18.029	-25.485	1.00	74.70	R	C
ÁTOMO	2202	CE2	PHE	R	238	6.951	19.100	-26.117	1.00	75.82	R	C

ÁTOMO	2203	CZ	PHE	R	238	6.026	18.079	-26.297	1.00	75.62	R	C
ÁTOMO	2204	C	PHE	R	238	5.992	22.291	-21.290	1.00	81.71	R	C
ÁTOMO	2205	O	PHE	R	238	5.041	22.374	-20.523	1.00	82.54	R	O
ÁTOMO	2206	N	HIS	R	239	6.933	23.247	-21.387	1.00	84.05	R	N
ÁTOMO	2207	CA	HIS	R	239	6.730	24.522	-20.723	1.00	86.76	R	C
ÁTOMO	2208	CB	HIS	R	239	7.562	24.539	-19.451	1.00	88.55	R	C
ÁTOMO	2209	CG	HIS	R	239	8.087	25.935	-19.238	1.00	90.57	R	C
ÁTOMO	2210	CD2	HIS	R	239	9.335	26.327	-18.739	1.00	91.49	R	C
ÁTOMO	2211	ND1	HIS	R	239	7.373	27.051	-19.528	1.00	91.70	R	N
ÁTOMO	2212	CE1	HIS	R	239	8.164	28.090	-19.201	1.00	92.58	R	C
ÁTOMO	2213	NE2	HIS	R	239	9.347	27.689	-18.726	1.00	92.43	R	N
ÁTOMO	2214	C	HIS	R	239	7.180	25.668	-21.621	1.00	87.52	R	C
ÁTOMO	2215	O	HIS	R	239	8.347	25.994	-21.715	1.00	87.44	R	O
ÁTOMO	2216	N	ASN	R	240	6.204	26.256	-22.310	1.00	88.29	R	N
ÁTOMO	2217	CA	ASN	R	240	6.572	27.235	-23.314	1.00	88.24	R	C
ÁTOMO	2218	CB	ASN	R	240	7.705	28.079	-22.739	1.00	88.25	R	C
ÁTOMO	2219	C	ASN	R	240	7.026	26.486	-24.568	1.00	88.02	R	C
ÁTOMO	2220	O	ASN	R	240	6.444	25.488	-24.980	1.00	88.51	R	O
ÁTOMO	2221	N	ASP	R	241	8.086	26.970	-25.210	1.00	87.16	R	N
ÁTOMO	2222	CA	ASP	R	241	8.400	26.251	-26.430	1.00	86.30	R	C
ÁTOMO	2223	CB	ASP	R	241	8.645	27.275	-27.532	1.00	87.95	R	C
ÁTOMO	2224	CG	ASP	R	241	7.339	28.063	-27.722	1.00	87.67	R	C
ÁTOMO	2225	OD1	ASP	R	241	6.295	27.510	-27.353	1.00	88.15	R	O
ÁTOMO	2226	OD2	ASP	R	241	7.367	29.216	-28.150	1.00	88.12	R	O
ÁTOMO	2227	C	ASP	R	241	9.531	25.218	-26.253	1.00	85.04	R	C
ÁTOMO	2228	O	ASP	R	241	10.205	24.828	-27.191	1.00	85.17	R	O
ÁTOMO	2229	N	ASP	R	242	9.583	24.714	-25.000	1.00	82.57	R	N
ÁTOMO	2230	CA	ASP	R	242	10.706	23.872	-24.616	1.00	80.06	R	C
ÁTOMO	2231	CB	ASP	R	242	11.390	24.580	-23.455	1.00	80.43	R	C
ÁTOMO	2232	CG	ASP	R	242	12.185	25.775	-23.943	1.00	81.48	R	C
ÁTOMO	2233	OD1	ASP	R	242	12.368	25.864	-25.151	1.00	81.91	R	O
ÁTOMO	2234	OD2	ASP	R	242	12.603	26.595	-23.124	1.00	81.63	R	O
ÁTOMO	2235	C	ASP	R	242	10.272	22.492	-24.112	1.00	78.44	R	C
ÁTOMO	2236	O	ASP	R	242	9.123	22.088	-24.167	1.00	79.46	R	O
ÁTOMO	2237	N	LEU	R	243	11.276	21.763	-23.574	1.00	75.69	R	N
ÁTOMO	2238	CA	LEU	R	243	11.000	20.446	-23.006	1.00	73.52	R	C
ÁTOMO	2239	CB	LEU	R	243	11.458	19.394	-24.018	1.00	72.84	R	C
ÁTOMO	2240	CG	LEU	R	243	10.788	18.034	-23.804	1.00	72.09	R	C
ÁTOMO	2241	CD1	LEU	R	243	11.612	16.882	-24.382	1.00	71.29	R	C
ÁTOMO	2242	CD2	LEU	R	243	10.574	17.709	-22.327	1.00	72.11	R	C
ÁTOMO	2243	C	LEU	R	243	11.741	20.241	-21.680	1.00	72.81	R	C
ÁTOMO	2244	O	LEU	R	243	12.963	20.186	-21.631	1.00	73.08	R	O
ÁTOMO	2245	N	TYR	R	244	10.928	20.170	-20.611	1.00	71.27	R	N
ÁTOMO	2246	CA	TYR	R	244	11.479	19.957	-19.278	1.00	70.19	R	C
ÁTOMO	2247	CB	TYR	R	244	10.477	20.516	-18.267	1.00	72.06	R	C
ÁTOMO	2248	CG	TYR	R	244	11.149	20.761	-16.963	1.00	74.30	R	C
ÁTOMO	2249	CD1	TYR	R	244	12.307	21.534	-16.907	1.00	75.35	R	C
ÁTOMO	2250	CE1	TYR	R	244	12.891	21.829	-15.679	1.00	76.01	R	C
ÁTOMO	2251	CD2	TYR	R	244	10.590	20.273	-15.782	1.00	75.12	R	C
ÁTOMO	2252	CE2	TYR	R	244	11.178	20.559	-14.558	1.00	74.79	R	C
ÁTOMO	2253	CZ	TYR	R	244	12.323	21.329	-14.503	1.00	75.92	R	C
ÁTOMO	2254	OH	TYR	R	244	12.891	21.640	-13.282	1.00	75.92	R	O
ÁTOMO	2255	C	TYR	R	244	11.696	18.468	-18.999	1.00	68.92	R	C
ÁTOMO	2256	O	TYR	R	244	10.784	17.653	-19.015	1.00	67.48	R	O
ÁTOMO	2257	N	VAL	R	245	12.972	18.115	-18.762	1.00	68.19	R	N
ÁTOMO	2258	CA	VAL	R	245	13.238	16.721	-18.435	1.00	66.99	R	C
ÁTOMO	2259	CB	VAL	R	245	14.344	16.187	-19.341	1.00	67.14	R	C
ÁTOMO	2260	CG1	VAL	R	245	14.629	14.717	-19.009	1.00	65.54	R	C

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ÁTOMO	2261	CG2	VAL	R	245	13.902	16.280	-20.790	1.00	65.15	R	C
ÁTOMO	2262	C	VAL	R	245	13.573	16.529	-16.954	1.00	66.24	R	C
ÁTOMO	2263	O	VAL	R	245	14.270	17.314	-16.315	1.00	66.44	R	O
ÁTOMO	2264	N	GLN	R	246	12.997	15.441	-16.403	1.00	65.56	R	N
ÁTOMO	2265	CA	GLN	R	246	13.115	15.140	-14.975	1.00	65.49	R	C
ÁTOMO	2266	CB	GLN	R	246	11.739	15.396	-14.333	1.00	67.51	R	C
ÁTOMO	2267	CG	GLN	R	246	11.831	15.846	-12.870	1.00	70.06	R	C
ÁTOMO	2268	CD	GLN	R	246	10.691	16.796	-12.544	1.00	71.11	R	C
ÁTOMO	2269	OE1	GLN	R	246	9.698	16.922	-13.247	1.00	70.54	R	O
ÁTOMO	2270	NE2	GLN	R	246	10.872	17.488	-11.400	1.00	70.86	R	N
ÁTOMO	2271	C	GLN	R	246	13.551	13.684	-14.765	1.00	64.64	R	C
ÁTOMO	2272	O	GLN	R	246	13.068	12.760	-15.412	1.00	65.52	R	O
ÁTOMO	2273	N	TRP	R	247	14.536	13.493	-13.858	1.00	63.78	R	N
ÁTOMO	2274	CA	TRP	R	247	15.092	12.144	-13.688	1.00	62.34	R	C
ÁTOMO	2275	CB	TRP	R	247	16.108	11.890	-14.805	1.00	61.18	R	C
ÁTOMO	2276	CG	TRP	R	247	17.394	12.599	-14.573	1.00	60.79	R	C
ÁTOMO	2277	CD2	TRP	R	247	17.796	13.862	-15.156	1.00	60.06	R	C
ÁTOMO	2278	CE2	TRP	R	247	19.140	14.100	-14.767	1.00	60.10	R	C
ÁTOMO	2279	CE3	TRP	R	247	17.140	14.798	-15.948	1.00	58.87	R	C
ÁTOMO	2280	CD1	TRP	R	247	18.522	12.107	-13.876	1.00	60.74	R	C
ÁTOMO	2281	NE1	TRP	R	247	19.596	12.942	-13.960	1.00	59.43	R	N
ÁTOMO	2282	CZ2	TRP	R	247	19.780	15.266	-15.160	1.00	58.49	R	C
ÁTOMO	2283	CZ3	TRP	R	247	17.783	15.957	-16.349	1.00	57.78	R	C
ÁTOMO	2284	CH2	TRP	R	247	19.107	16.198	-15.942	1.00	57.93	R	C
ÁTOMO	2285	C	TRP	R	247	15.735	11.884	-12.316	1.00	62.27	R	C
ÁTOMO	2286	O	TRP	R	247	16.012	12.776	-11.535	1.00	61.13	R	O
ÁTOMO	2287	N	GLU	R	248	15.929	10.577	-12.040	1.00	62.92	R	N
ÁTOMO	2288	CA	GLU	R	248	16.487	10.148	-10.767	1.00	64.61	R	C
ÁTOMO	2289	CB	GLU	R	248	15.536	9.101	-10.183	1.00	66.82	R	C
ÁTOMO	2290	CG	GLU	R	248	16.044	8.487	-8.879	1.00	72.44	R	C
ÁTOMO	2291	CD	GLU	R	248	15.069	7.423	-8.426	1.00	75.78	R	C
ÁTOMO	2292	OE1	GLU	R	248	14.881	7.271	-7.227	1.00	76.82	R	O
ÁTOMO	2293	OE2	GLU	R	248	14.483	6.766	-9.286	1.00	77.17	R	O
ÁTOMO	2294	C	GLU	R	248	17.881	9.547	-10.959	1.00	63.40	R	C
ÁTOMO	2295	O	GLU	R	248	18.079	8.578	-11.678	1.00	62.30	R	O
ÁTOMO	2296	N	ASN	R	249	18.882	10.192	-10.330	1.00	63.16	R	N
ÁTOMO	2297	CA	ASN	R	249	20.228	9.638	-10.413	1.00	63.41	R	C
ÁTOMO	2298	CB	ASN	R	249	21.207	10.669	-9.845	1.00	61.84	R	C
ÁTOMO	2299	CG	ASN	R	249	21.375	11.809	-10.817	1.00	61.58	R	C
ÁTOMO	2300	OD1	ASN	R	249	21.437	11.627	-12.030	1.00	61.61	R	O
ÁTOMO	2301	ND2	ASN	R	249	21.469	13.026	-10.253	1.00	61.70	R	N
ÁTOMO	2302	C	ASN	R	249	20.331	8.340	-9.611	1.00	63.66	R	C
ÁTOMO	2303	O	ASN	R	249	19.469	8.000	-8.814	1.00	63.48	R	O
ÁTOMO	2304	N	PRO	R	250	21.409	7.584	-9.878	1.00	63.57	R	N
ÁTOMO	2305	CD	PRO	R	250	22.444	7.800	-10.874	1.00	63.27	R	C
ÁTOMO	2306	CA	PRO	R	250	21.674	6.361	-9.133	1.00	64.11	R	C
ÁTOMO	2307	CB	PRO	R	250	22.946	5.737	-9.701	1.00	63.59	R	C
ÁTOMO	2308	CG	PRO	R	250	23.260	6.432	-11.023	1.00	63.95	R	C
ÁTOMO	2309	C	PRO	R	250	21.840	6.661	-7.639	1.00	65.15	R	C
ÁTOMO	2310	O	PRO	R	250	22.533	7.580	-7.229	1.00	64.73	R	O
ÁTOMO	2311	N	GLN	R	251	21.135	5.861	-6.818	1.00	66.03	R	N
ÁTOMO	2312	CA	GLN	R	251	21.045	6.167	-5.391	1.00	66.28	R	C
ÁTOMO	2313	CB	GLN	R	251	20.367	4.987	-4.687	1.00	69.33	R	C
ÁTOMO	2314	CG	GLN	R	251	19.467	5.423	-3.526	1.00	74.19	R	C
ÁTOMO	2315	CD	GLN	R	251	18.810	4.207	-2.909	1.00	75.95	R	C
ÁTOMO	2316	OE1	GLN	R	251	17.614	4.144	-2.674	1.00	76.89	R	O
ÁTOMO	2317	NE2	GLN	R	251	19.669	3.204	-2.634	1.00	76.36	R	N

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ÁTOMO	2318	C	GLN	R	251	22.406	6.500	-4.729	1.00	63.78	R	C
ÁTOMO	2319	O	GLN	R	251	22.511	7.392	-3.905	1.00	63.33	R	O
ÁTOMO	2320	N	ASN	R	252	23.454	5.723	-5.102	1.00	61.66	R	N
ÁTOMO	2321	CA	ASN	R	252	24.780	5.877	-4.463	1.00	60.52	R	C
ÁTOMO	2322	CB	ASN	R	252	25.678	4.714	-4.874	1.00	59.39	R	C
ÁTOMO	2323	CG	ASN	R	252	25.160	3.386	-4.394	1.00	59.91	R	C
ÁTOMO	2324	OD1	ASN	R	252	25.580	2.328	-4.860	1.00	58.57	R	O
ÁTOMO	2325	ND2	ASN	R	252	24.281	3.436	-3.381	1.00	57.39	R	N
ÁTOMO	2326	C	ASN	R	252	25.513	7.161	-4.868	1.00	60.26	R	C
ÁTOMO	2327	O	ASN	R	252	26.552	7.522	-4.312	1.00	59.23	R	O
ÁTOMO	2328	N	PHE	R	253	25.003	7.814	-5.924	1.00	59.77	R	N
ÁTOMO	2329	CA	PHE	R	253	25.624	9.048	-6.322	1.00	59.18	R	C
ÁTOMO	2330	CB	PHE	R	253	25.933	9.038	-7.808	1.00	56.76	R	C
ÁTOMO	2331	CG	PHE	R	253	26.911	7.957	-8.123	1.00	55.92	R	C
ÁTOMO	2332	CD1	PHE	R	253	26.452	6.655	-8.263	1.00	55.78	R	C
ÁTOMO	2333	CD2	PHE	R	253	28.269	8.256	-8.278	1.00	55.39	R	C
ÁTOMO	2334	CE1	PHE	R	253	27.360	5.635	-8.533	1.00	55.18	R	C
ÁTOMO	2335	CE2	PHE	R	253	29.164	7.221	-8.566	1.00	56.05	R	C
ÁTOMO	2336	CZ	PHE	R	253	28.712	5.920	-8.691	1.00	56.84	R	C
ÁTOMO	2337	C	PHE	R	253	24.723	10.189	-6.034	1.00	59.89	R	C
ÁTOMO	2338	O	PHE	R	253	23.509	10.088	-5.964	1.00	61.22	R	O
ÁTOMO	2339	N	ILE	R	254	25.384	11.301	-5.843	1.00	60.15	R	N
ÁTOMO	2340	CA	ILE	R	254	24.684	12.483	-5.501	1.00	59.95	R	C
ÁTOMO	2341	CB	ILE	R	254	25.335	12.928	-4.205	1.00	62.03	R	C
ÁTOMO	2342	CG2	ILE	R	254	26.791	12.411	-4.197	1.00	63.18	R	C
ÁTOMO	2343	CG1	ILE	R	254	25.389	14.447	-4.172	1.00	62.64	R	C
ÁTOMO	2344	CD1	ILE	R	254	26.001	14.971	-2.876	1.00	62.24	R	C
ÁTOMO	2345	C	ILE	R	254	24.926	13.483	-6.590	1.00	59.07	R	C
ÁTOMO	2346	O	ILE	R	254	25.969	13.482	-7.255	1.00	59.16	R	O
ÁTOMO	2347	N	SER	R	255	23.996	14.309	-6.862	1.00	58.74	R	N
ÁTOMO	2348	CA	SER	R	255	23.956	15.080	-8.086	1.00	58.94	R	C
ÁTOMO	2349	CB	SER	R	255	22.644	15.831	-8.045	1.00	58.94	R	C
ÁTOMO	2350	OG	SER	R	255	22.458	16.746	-9.147	1.00	62.51	R	O
ÁTOMO	2351	C	SER	R	255	25.122	15.995	-8.454	1.00	58.42	R	C
ÁTOMO	2352	O	SER	R	255	25.599	16.070	-9.628	1.00	58.51	R	O
ÁTOMO	2353	N	ARG	R	256	25.583	16.759	-7.484	1.00	57.50	R	N
ÁTOMO	2354	CA	ARG	R	256	26.653	17.643	-7.758	1.00	55.75	R	C
ÁTOMO	2355	CB	ARG	R	256	26.808	18.702	-6.582	1.00	57.39	R	C
ÁTOMO	2356	CG	ARG	R	256	27.236	18.154	-5.258	1.00	58.42	R	C
ÁTOMO	2357	CD	ARG	R	256	27.694	19.178	-4.274	1.00	58.58	R	C
ÁTOMO	2358	NE	ARG	R	256	27.686	18.482	-2.990	1.00	60.41	R	N
ÁTOMO	2359	CZ	ARG	R	256	26.577	18.201	-2.279	1.00	60.88	R	C
ÁTOMO	2360	NH1	ARG	R	256	25.360	18.530	-2.655	1.00	59.81	R	N
ÁTOMO	2361	NH2	ARG	R	256	26.693	17.611	-1.141	1.00	60.03	R	N
ÁTOMO	2362	C	ARG	R	256	27.938	16.926	-8.025	1.00	53.84	R	C
ÁTOMO	2363	O	ARG	R	256	28.885	17.569	-8.396	1.00	52.44	R	O
ÁTOMO	2364	N	CYS	R	257	27.983	15.636	-7.866	1.00	52.68	R	N
ÁTOMO	2365	CA	CYS	R	257	29.166	14.845	-8.206	1.00	52.72	R	C
ÁTOMO	2366	C	CYS	R	257	29.178	14.290	-9.641	1.00	51.14	R	C
ÁTOMO	2367	O	CYS	R	257	30.145	13.655	-10.058	1.00	50.47	R	O
ÁTOMO	2368	CB	CYS	R	257	29.186	13.673	-7.249	1.00	54.19	R	C
ÁTOMO	2369	SG	CYS	R	257	29.650	14.132	-5.568	1.00	60.74	R	S
ÁTOMO	2370	N	LEU	R	258	28.143	14.511	-10.377	1.00	48.40	R	N
ÁTOMO	2371	CA	LEU	R	258	27.918	13.913	-11.614	1.00	47.82	R	C
ÁTOMO	2372	CB	LEU	R	258	26.655	13.157	-11.529	1.00	46.62	R	C
ÁTOMO	2373	CG	LEU	R	258	26.504	11.934	-10.673	1.00	47.57	R	C
ÁTOMO	2374	CD1	LEU	R	258	25.160	11.346	-10.859	1.00	48.25	R	C
ÁTOMO	2375	CD2	LEU	R	258	27.535	10.901	-11.209	1.00	45.86	R	C
ÁTOMO	2376	C	LEU	R	258	27.783	14.984	-12.653	1.00	47.12	R	C

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ATOMO 2377 O   LEU R 258    27.275 16.075 -12.364 1.00 46.63 R O
ATOMO 2378 N   PHE R 259    28.101 14.607 -13.826 1.00 45.55 R N
ATOMO 2379 CA  PHE R 259    27.739 15.318 -15.113 1.00 45.70 R C
ATOMO 2380 CB  PHE R 259    28.971 15.748 -15.963 1.00 46.66 R C
ATOMO 2381 CG  PHE R 259    29.726 17.012 -15.450 1.00 49.54 R C
ATOMO 2382 CD1 PHE R 259    29.244 17.725 -14.274 1.00 49.69 R C
ATOMO 2383 CD2 PHE R 259    30.981 17.457 -16.045 1.00 50.86 R C
ATOMO 2384 CE1 PHE R 259    29.902 18.916 -13.682 1.00 50.58 R C
ATOMO 2385 CE2 PHE R 259    31.690 18.722 -15.533 1.00 50.28 R C
ATOMO 2386 CZ  PHE R 259    31.152 19.366 -14.260 1.00 50.45 R C
ATOMO 2387 C   PHE R 259    26.845 14.450 -15.962 1.00 46.12 R C
ATOMO 2388 O   PHE R 259    26.928 13.262 -15.914 1.00 46.40 R O
ATOMO 2389 N   TYR R 260    26.097 15.063 -16.918 1.00 45.23 R N
ATOMO 2390 CA  TYR R 260    25.091 14.347 -17.606 1.00 45.84 R C
ATOMO 2391 CB  TYR R 260    23.650 14.675 -17.082 1.00 46.70 R C
ATOMO 2392 CG  TYR R 260    23.579 14.806 -15.612 1.00 49.36 R C
ATOMO 2393 CD1 TYR R 260    23.861 15.967 -15.000 1.00 50.50 R C
ATOMO 2394 CE1 TYR R 260    23.852 16.066 -13.479 1.00 52.78 R C
ATOMO 2395 CD2 TYR R 260    23.241 13.718 -14.809 1.00 49.26 R C
ATOMO 2396 CE2 TYR R 260    23.133 13.831 -13.473 1.00 51.55 R C
ATOMO 2397 CZ  TYR R 260    23.544 14.925 -12.762 1.00 53.08 R C
ATOMO 2398 OH  TYR R 260    23.422 14.967 -11.316 1.00 56.10 R O
ATOMO 2399 C   TYR R 260    25.158 14.463 -19.098 1.00 45.82 R C
ATOMO 2400 O   TYR R 260    25.518 15.477 -19.703 1.00 46.96 R O
ATOMO 2401 N   GLU R 261    24.649 13.439 -19.772 1.00 45.39 R N
ATOMO 2402 CA  GLU R 261    24.356 13.555 -21.222 1.00 44.70 R C
ATOMO 2403 C3  GLU R 261    25.294 12.703 -21.907 1.00 42.68 R C
ATOMO 2404 CG  GLU R 261    26.123 13.417 -22.942 1.00 46.04 R C
ATOMO 2405 CD  GLU R 261    27.233 12.676 -23.736 1.00 48.58 R C
ATOMO 2406 OE1 GLU R 261    28.384 13.293 -23.854 1.00 48.48 R O
ATOMO 2407 OE2 GLU R 261    26.918 11.551 -24.307 1.00 50.76 R O
ATOMO 2408 C   GLU R 261    22.852 13.311 -21.527 1.00 44.68 R C
ATOMO 2409 O   GLU R 261    22.356 12.280 -21.353 1.00 44.51 R O
ATOMO 2410 N   VAL R 262    22.148 14.288 -22.026 1.00 43.07 R N
ATOMO 2411 CA  VAL R 262    20.816 14.139 -22.348 1.00 44.29 R C
ATOMO 2412 CB  VAL R 262    20.003 15.258 -21.830 1.00 43.85 R C
ATOMO 2413 CG  VAL R 262    18.561 15.075 -22.070 1.00 43.87 R C
ATOMO 2414 CG  VAL R 262    20.244 15.536 -20.345 1.00 43.73 R C
ATOMO 2415 C   VAL R 262    20.661 14.112 -23.893 1.00 45.69 R C
ATOMO 2416 O   VAL R 262    20.808 15.105 -24.535 1.00 45.95 R O
ATOMO 2417 N   GLU R 263    20.264 12.971 -24.382 1.00 47.42 R N
ATOMO 2418 CA  GLU R 263    19.855 12.647 -25.633 1.00 49.96 R C
ATOMO 2419 CB  GLU R 263    20.217 11.119 -25.870 1.00 51.56 R C
ATOMO 2420 CG  GLU R 263    20.072 10.749 -27.461 1.00 53.01 R C
ATOMO 2421 CD  GLU R 263    19.925 9.223  -27.656 1.00 55.42 R C
ATOMO 2422 OE  GLU R 263    20.906 8.628  -28.122 1.00 56.59 R O
ATOMO 2423 OE  GLU R 263    18.855 8.513  -27.239 1.00 57.62 R O
ATOMO 2424 C   GLU R 263    18.340 12.852 -26.019 1.00 50.75 R C
ATOMO 2425 O   GLU R 263    17.385 12.312 -25.460 1.00 48.99 R O
ATOMO 2426 N   VAL R 264    18.129 13.621 -27.087 1.00 52.50 R N
ATOMO 2427 CA  VAL R 264    16.773 13.878 -27.641 1.00 54.11 R C
ATOMO 2428 CB  VAL R 264    16.295 15.309 -27.377 1.00 53.62 R C
ATOMO 2429 CG  VAL R 264    14.771 15.521 -27.633 1.00 51.79 R C
ATOMO 2430 CG2 VAL R 264    16.569 15.771 -25.785 1.00 52.95 R C
ATOMO 2431 C   VAL R 264    16.711 13.636 -29.117 1.00 55.80 R C
ATOMO 2432 O   VAL R 264    17.429 14.292 -29.756 1.00 56.07 R O
ATOMO 2433 N   ASN R 265    15.831 12.729 -29.615 1.00 58.16 R N
ATOMO 2434 CA  ASN R 265    15.491 12.533 -31.017 1.00 61.43 R C
ATOMO 2435 CB  ASN R 265    15.626 11.064 -31.500 1.00 60.70 R C
ATOMO 2436 CG  ASN R 265    16.969 10.489 -31.183 1.00 61.63 R C
ATOMO 2437 OD1 ASN R 265    17.775 11.218 -30.646 1.00 61.76 R O
ATOMO 2438 ND2 ASN R 265    17.227 9.190  -31.394 1.00 61.47 R N
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ÁTOMO	2439	C	ASN	R	265	14.086	13.023	-31.342	1.00	63.85	R	C
ÁTOMO	2440	O	ASN	R	265	13.083	12.831	-30.585	1.00	64.60	R	O
ÁTOMO	2441	N	ASN	R	266	13.994	13.722	-32.460	1.00	66.73	R	N
ÁTOMO	2442	CA	ASN	R	266	12.742	14.154	-33.058	1.00	69.50	R	C
ÁTOMO	2443	CB	ASN	R	266	12.925	15.589	-33.554	1.00	71.22	R	C
ÁTOMO	2444	CG	ASN	R	266	11.579	16.255	-33.675	1.00	73.17	R	C
ÁTOMO	2445	OD1	ASN	R	266	10.774	15.938	-34.546	1.00	74.20	R	O
ÁTOMO	2446	ND2	ASN	R	266	11.330	17.204	-32.755	1.00	73.74	R	N
ÁTOMO	2447	C	ASN	R	266	12.354	13.248	-34.221	1.00	71.29	R	C
ÁTOMO	2448	O	ASN	R	266	12.975	13.234	-35.275	1.00	70.99	R	O
ÁTOMO	2449	N	SER	R	267	11.313	12.431	-33.987	1.00	73.90	R	-N
ÁTOMO	2450	CA	SER	R	267	10.880	11.511	-35.034	1.00	76.24	R	C
ÁTOMO	2451	C13	SER	R	267	9.778	10.618	-34.462	1.00	76.17	R	C
ÁTOMO	2452	OG	SER	R	267	10.139	10.204	-33.149	1.00	78.71	R	O
ÁTOMO	2453	C	SER	R	267	10.350	12.269	-36.255	1.00	77.66	R	C
ÁTOMO	2454	O	SER	R	267	10.318	11.773	-37.370	1.00	78.45	R	O
ÁTOMO	2455	N	GLN	R	268	9.893	13.507	-35.990	1.00	79.01	R	N
ÁTOMO	2456	CA	GLN	R	268	9.325	14.312	-37.060	1.00	80.98	R	C
ÁTOMO	2457	CB	GLN	R	268	8.546	15.459	-36.429	1.00	83.07	R	C
ÁTOMO	2458	CG	GLN	R	268	7.176	15.013	-35.922	1.00	86.65	R	C
ÁTOMO	2459	CD	GLN	R	268	6.383	16.235	-35.535	1.00	88.88	R	C
ÁTOMO	2460	OE1	GLN	R	268	5.232	16.191	-35.127	1.00	89.31	R	O
ÁTOMO	2461	NE2	GLN	R	268	7.068	17.380	-35.696	1.00	89.89	R	N
ÁTOMO	2462	C	GLN	R	268	10.393	14.852	-38.017	1.00	81.08	R	C
ÁTOMO	2463	O	GLN	R	268	10.331	14.664	-39.228	1.00	81.44	R	O
ÁTOMO	2464	N	THR	R	269	11.368	15.591	-37.453	1.00	80.39	R	N
ÁTOMO	2465	CA	THR	R	269	12.446	16.091	-38.304	1.00	78.88	R	C
ÁTOMO	2466	CB	THR	R	269	12.978	17.415	-37.738	1.00	79.42	R	C
ÁTOMO	2467	OG1	THR	R	269	13.483	17.219	-36.420	1.00	79.08	R	O
ÁTOMO	2468	CG2	THR	R	269	11.846	18.446	-37.673	1.00	78.99	R	C
ÁTOMO	2469	C	THR	R	269	13.559	15.049	-38.477	1.00	77.19	R	C
ÁTOMO	2470	O	THR	R	269	14.251	14.995	-39.482	1.00	76.91	R	O
ÁTOMO	2471	N	GLU	R	270	13.698	14.183	-37.451	1.00	75.45	R	N
ÁTOMO	2472	CA	GLU	R	270	14.706	13.132	-37.519	1.00	73.85	R	C
ÁTOMO	2473	CB	GLU	R	270	14.895	12.737	-38.984	1.00	76.06	R	C
ÁTOMO	2474	CG	GLU	R	270	15.160	11.241	-39.154	1.00	79.07	R	C
ÁTOMO	2475	CD	GLU	R	270	14.611	10.783	-40.487	1.00	80.62	R	C
ÁTOMO	2476	OE1	GLU	R	270	15.308	10.067	-41.194	1.00	81.22	R	O
ÁTOMO	2477	OE2	GLU	R	270	13.486	11.157	-40.814	1.00	81.18	R	O
ÁTOMO	2478	C	GLU	R	270	16.031	13.604	-36.920	1.00	71.07	R	C
ÁTOMO	2479	O	GLU	R	270	17.053	12.934	-36.983	1.00	69.75	R	O
ÁTOMO	2480	N	THR	R	271	15.990	14.826	-36.359	1.00	68.27	R	N
ÁTOMO	2481	CA	THR	R	271	17.189	15.387	-35.747	1.00	66.22	R	C
ÁTOMO	2482	CB	THR	R	211	-16.966	16.889	-35.574	1.00	67.03	R	C
ÁTOMO	2483	OG1	THR	R	271	17.016	17.518	-36.856	1.00	69.01	R	O
ÁTOMO	2484	CG2	THR	R	271	18.059	17.487	-34.685	1.00	66.87	R	C
ÁTOMO	2485	C	THR	R	271	17.481	14.743	-34.389	1.00	63.55	R	C
ÁTOMO	2486	O	THR	R	271	16.584	14.416	-33.623	1.00	62.52	R	O
ÁTOMO	2487	N	HIS	R	272	18.743	14.504	-34.137	1.00	62.01	R	N
ÁTOMO	2488	CA	HIS	R	272	19.355	13.780	-33.016	1.00	60.41	R	C
ÁTOMO	2489	C13	HIS	R	272	20.146	12.614	-33.522	1.00	60.09	R	C
ÁTOMO	2490	CG	HIS	R	272	20.925	11.930	-32.476	1.00	64.26	R	C
ÁTOMO	2491	CD2	HIS	R	272	20.641	11.652	-31.186	1.00	65.40	R	C
ÁTOMO	2492	ND1	HIS	R	272	22.234	11.563	-32.644	1.00	66.46	R	N
ÁTOMO	2493	CE1	HIS	R	272	22.721	11.079	-31.508	1.00	66.77	R	C
ÁTOMO	2494	NE2	HIS	R	272	21.753	11.080	-30.622	1.00	65.74	R	N
ÁTOMO	2495	C	HIS	R	272	20.212	14.860	-32.362	1.00	58.50	R	C
ÁTOMO	2496	O	HIS	R	272	21.117	15.411	-32.924	1.00	57.95	R	O
ÁTOMO	2497	N	ASN	R	273	19.853	15.196	-31.198	1.00	56.75	R	N

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ÁTOMO	2498	CA	ASN	R	273	20.636	16.051	-30.290	1.00	56.29	R	C
ÁTOMO	2499	CB	ASN	R	273	19.719	17.140	-29.794	1.00	57.24	R	C
ÁTOMO	2500	CG	ASN	R	273	19.529	18.290	-30.791	1.00	59.20	R	C
ÁTOMO	2501	OD1	ASN	R	273	18.437	18.683	-31.010	1.00	60.99	R	O
ÁTOMO	2502	ND2	ASN	R	273	20.618	18.821	-31.401	1.00	61.33	R	N
ÁTOMO	2503	C	ASN	R	273	21.205	15.359	-28.972	1.00	54.78	R	C
ÁTOMO	2504	O	ASN	R	273	20.592	14.472	-28.332	1.00	54.60	R	O
ÁTOMO	2505	N	VAL	R	274	22.395	15.849	-28.533	1.00	52.12	R	N
ÁTOMO	2506	CA	VAL	R	274	23.079	15.410	-27.426	1.00	49.18	R	C
ÁTOMO	2507	CB	VAL	R	274	24.216	14.505	-27.781	1.00	49.10	R	C
ÁTOMO	2508	CG1	VAL	R	274	24.845	14.060	-26.519	1.00	47.67	R	C
ÁTOMO	2509	CG2	VAL	R	274	23.756	13.114	-28.509	1.00	47.62	R	C
ÁTOMO	2510	C	VAL	R	274	23.485	16.648	-26.596	1.00	48.00	R	C
ÁTOMO	2511	O	VAL	R	274	24.321	17.401	-27.074	1.00	48.15	R	O
ÁTOMO	2512	N	PHE	R	275	22.898	16.838	-25.430	1.00	46.02	R	N
ÁTOMO	2513	CA	PHE	R	275	23.223	17.997	-24.604	1.00	46.97	R	C
ÁTOMO	2514	CB	PHE	R	275	22.043	18.598	-23.942	1.00	45.65	R	C
ÁTOMO	2515	CG	PHE	R	275	21.058	19.190	-24.895	1.00	47.42	R	C
ÁTOMO	2516	Col	PHE	R	275	20.129	18.361	-25.638	1.00	46.46	R	C
ÁTOMO	2517	CD2	PHE	R	275	21.162	20.508	-25.191	1.00	46.21	R	C
ÁTOMO	2518	CE1	PHE	R	275	19.178	18.931	-26.577	1.00	46.27	R	C
ÁTOMO	2519	CE2	PHE	R	275	20.316	21.057	-26.240	1.00	45.90	R	C
ÁTOMO	2520	CZ	PHE	R	275	19.245	20.320	-26.842	1.00	46.37	R	C
ÁTOMO	2521	C	PHE	R	275	24.080	17.489	-23.421	1.00	48.11	R	C
ÁTOMO	2522	O	PHE	R	275	23.804	16.462	-22.790	1.00	47.90	R	O
ÁTOMO	2523	N	TYR	R	276	25.205	18.120	-23.289	1.00	48.11	R	N
ÁTOMO	2524	CA	TYR	R	276	26.132	17.892	-22.206	1.00	49.41	R	C
ÁTOMO	2525	CB	TYR	R	276	27.556	18.113	-22.781	1.00	51.00	R	C
ÁTOMO	2526	CG	TYR	R	276	28.687	17.896	-21.890	1.00	52.00	R	C
ÁTOMO	2527	CD1	TYR	R	276	29.180	18.909	-21.024	1.00	53.82	R	C
ÁTOMO	2528	CE1	TYR	R	276	30.356	18.592	-20.072	1.00	54.29	R	C
ÁTOMO	2529	CD2	TYR	R	276	29.218	16.669	-21.773	1.00	52.53	R	C
ÁTOMO	2530	CE2	TYR	R	276	30.255	16.322	-20.863	1.00	53.11	R	C
ÁTOMO	2531	CZ	TYR	R	276	30.780	17.252	-19.988	1.00	54.24	R	C
ÁTOMO	2532	OH	TYR	R	276	31.868	16.862	-19.341	1.00	56.13	R	O
ÁTOMO	2533	C	TYR	R	276	25.880	18.902	-21.133	1.00	49.44	R	C
ÁTOMO	2534	O	TYR	R	276	26.056	20.049	-21.242	1.00	47.42	R	O
ÁTOMO	2535	N	VAL	R	277	25.490	18.395	-19.987	1.00	51.00	R	N
ÁTOMO	2536	CA	VAL	R	277	25.051	19.280	-18.964	1.00	52.54	R	C
ÁTOMO	2537	CB	VAL	R	277	23.458	19.284	-18.838	1.00	53.05	R	C
ÁTOMO	2538	CG1	VAL	R	277	22.640	18.569	-19.923	1.00	51.02	R	C
ÁTOMO	2539	CG2	VAL	R	277	22.965	19.091	-17.483	1.00	52.55	R	C
ÁTOMO	2540	C	VAL	R	277	25.751	19.142	-17.613	1.00	54.64	R	C
ÁTOMO	2541	O	VAL	R	277	25.862	18.026	-17.077	1.00	53.39	R	O
ÁTOMO	2542	N	GLN	R	278	26.333	20.223	-17.123	1.00	57.64	R	N
ÁTOMO	2543	CA	GLN	R	278	27.081	20.216	-15.792	1.00	60.92	R	C
ÁTOMO	2544	CB	GLN	R	278	28.210	21.082	-15.824	1.00	62.64	R	C
ÁTOMO	2545	CG	GLN	R	278	28.680	21.292	-17.239	1.00	66.68	R	C
ÁTOMO	2546	CD	GLN	R	278	30.278	21.646	-17.406	1.00	68.72	R	C
ÁTOMO	2547	OE1	GLN	R	278	31.062	21.601	-16.435	1.00	69.80	R	O
ÁTOMO	2548	NE2	GLN	R	278	30.682	22.000	-18.645	1.00	69.14	R	N
ÁTOMO	2549	C	GLN	R	278	26.264	20.455	-14.545	1.00	61.75	R	C
ÁTOMO	2550	O	GLN	R	278	26.522	20.013	-13.532	1.00	61.88	R	O
ÁTOMO	2551	N	GLU	R	279	25.160	21.102	-14.739	1.00	63.48	R	N
ÁTOMO	2552	CA	GLU	R	279	24.333	21.641	-13.721	1.00	65.20	R	C
ÁTOMO	2553	CB	GLU	R	279	24.469	23.152	-13.731	1.00	65.02	R	C
ÁTOMO	2554	C	GLU	R	279	22.905	21.254	-14.034	1.00	66.40	R	C
ÁTOMO	2555	O	GLU	R	279	22.318	21.601	-15.055	1.00	66.33	R	O
ÁTOMO	2556	N	ALA	R	280	22.345	20.440	-13.145	1.00	68.12	R	N

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ÁTOMO	2557	CA	ALA	R	280	20.986	20.030	-13.386	1.00	70.55	R	C
ÁTOMO	2558	CB	ALA	R	280	20.995	18.527	-13.699	1.00	68.51	R	C
ÁTOMO	2559	C	ALA	R	280	20.177	20.253	-12.142	1.00	72.94	R	C
ÁTOMO	2560	O	ALA	R	280	19.634	19.327	-11.575	1.00	72.68	R	O
ÁTOMO	2561	N	LYS	R	281	20.159	21.537	-11.689	1.00	75.96	R	N
ÁTOMO	2562	CA	LYS	R	281	19.418	21.812	-10.474	1.00	79.54	R	C
ÁTOMO	2563	CB	LYS	R	281	19.816	23.160	-9.886	1.00	79.86	R	C
ÁTOMO	2564	CG	LYS	R	281	19.897	23.025	-8.363	1.00	80.01	R	C
ÁTOMO	2565	CD	LYS	R	281	20.945	23.937	-7.726	1.00	79.40	R	C
ÁTOMO	2566	CE	LYS	R	281	22.361	23.389	-7.882	1.00	79.46	R	C
ÁTOMO	2567	NZ	LYS	R	281	23.266	24.502	-8.130	1.00	79.43	R	N
ÁTOMO	2568	C	LYS	R	281	17.923	21.719	-10.689	1.00	82.08	R	C
ÁTOMO	2569	O	LYS	R	281	17.290	22.454	-11.445	1.00	81.67	R	O
ÁTOMO	2570	N	CYS	R	282	17.338	20.710	-10.049	1.00	84.54	R	N
ÁTOMO	2571	CA	CYS	R	282	15.930	20.563	-10.411	1.00	86.72	R	C
ÁTOMO	2572	C	CYS	R	282	15.074	21.633	-9.740	1.00	88.49	R	C
ÁTOMO	2573	O	CYS	R	282	14.287	21.367	-8.834	1.00	89.72	R	O
ÁTOMO	2574	CB	CYS	R	282	15.473	19.183	-9.941	1.00	86.35	R	C
ÁTOMO	2575	SG	CYS	R	282	14.708	18.208	-11.254	1.00	88.45	R	S
ÁTOMO	2576	N	GLU	R	283	15.265	22.886	-10.178	1.00	90.11	R	N
ÁTOMO	2577	CA	GLU	R	283	14.567	23.943	-9.463	1.00	92.03	R	C
ÁTOMO	2578	CB	GLU	R	283	14.600	23.581	-7.981	1.00	92.46	R	C
ÁTOMO	2579	CG	GLU	R	283	14.683	24.814	-7.078	1.00	93.73	R	C
ÁTOMO	2580	CD	GLU	R	283	13.454	25.660	-7.294	1.00	95.07	R	C
ÁTOMO	2581	OE1	GLU	R	283	13.554	26.872	-7.195	1.00	95.36	R	O
ÁTOMO	2582	OE2	GLU	R	283	12.407	25.093	-7.596	1.00	95.10	R	O
ÁTOMO	2583	C	GLU	R	283	15.219	25.319	-9.637	1.00	93.03	R	C
ÁTOMO	2584	O	GLU	R	283	16.389	25.531	-9.343	1.00	93.42	R	O
ÁTOMO	2585	N	ASN	R	284	14.440	26.266	-10.203	1.00	94.22	R	N
ÁTOMO	2586	CA	ASN	R	284	13.147	25.899	-10.787	1.00	95.83	R	C
ÁTOMO	2587	CB	ASN	R	284	12.279	27.158	-10.865	1.00	95.79	R	C
ÁTOMO	2588	C	ASN	R	284	13.304	25.291	-12.185	1.00	97.36	R	C
ÁTOMO	2589	O	ASN	R	284	14.158	24.452	-12.440	1.00	98.00	R	O
ÁTOMO	2590	N	PRO	R	285	12.396	25.707	-13.095	1.00	98.24	R	N
ÁTOMO	2591	CD	PRO	R	285	12.412	25.484	-14.529	1.00	98.86	R	C
ÁTOMO	2592	CA	PRO	R	285	11.267	26.543	-12.732	1.00	99.16	R	C
ÁTOMO	2593	CB	PRO	R	285	10.547	26.976	-14.000	1.00	98.54	R	C
ÁTOMO	2594	CG	PRO	R	285	11.139	26.213	-15.175	1.00	98.67	R	C
ÁTOMO	2595	C	PRO	R	285	10.275	25.842	-11.797	1.00	99.89	R	C
ÁTOMO	2596	O	PRO	R	285	10.314	24.647	-11.549	1.00	99.92	R	O
ÁTOMO	2597	N	GLU	R	286	9.353	26.690	-11.303	1.00	100.79	R	N
ÁTOMO	2598	CA	GLU	R	286	8.546	26.374	-10.125	1.00	102.10	R	C
ÁTOMO	2599	CB	GLU	R	286	8.208	27.715	-9.500	1.00	103.19	R	C
ÁTOMO	2600	CG	GLU	R	286	9.398	28.655	-9.739	1.00	106.31	R	C
ÁTOMO	2601	CD	GLU	R	286	9.043	30.101	-9.504	1.00	109.22	R	C
ÁTOMO	2602	OE1	GLU	R	286	8.023	30.541	-10.005	1.00	110.82	R	O
ÁTOMO	2603	OE2	GLU	R	286	9.891	30.817	-8.965	1.00	109.63	R	O
ÁTOMO	2604	C	GLU	R	286	7.297	25.553	-10.455	1.00	101.95	R	C
ÁTOMO	2605	O	GLU	R	286	6.579	25.070	-9.602	1.00	102.44	R	O
ÁTOMO	2606	N	PHE	R	287	7.049	25.392	-11.760	1.00	101.53	R	N
ÁTOMO	2607	CA	PHE	R	287	6.017	24.441	-12.168	1.00	101.39	R	C
ÁTOMO	2608	CB	PHE	R	287	6.246	24.166	-13.655	1.00	100.97	R	C
ÁTOMO	2609	CG	PHE	R	287	5.519	25.184	-14.443	1.00	100.24	R	C
ÁTOMO	2610	CD1	PHE	R	287	5.083	26.324	-13.787	1.00	100.27	R	C
ÁTOMO	2611	CD2	PHE	R	287	5.407	25.073	-15.813	1.00	99.82	R	C
ÁTOMO	2612	CE1	PHE	R	287	4.554	27.379	-14.516	1.00	100.42	R	C
ÁTOMO	2613	CE2	PHE	R	287	4.877	26.135	-16.534	1.00	99.79	R	C
ÁTOMO	2614	CZ	PHE	R	287	4.453	27.296	-15.891	1.00	99.91	R	C
ÁTOMO	2615	C	PHE	R	287	6.231	23.106	-11.495	1.00	101.27	R	C

ATOMO	2616	O	PHE	R	287	5.662	22.768	-10.455	1.00	101.94	R	O
ATOMO	2617	N	GLU	R	288	7.071	22.346	-12.238	1.00	100.02	R	N
ATOMO	2618	CA	GLU	R	288	7.559	21.018	-11.927	1.00	98.61	R	C
ATOMO	2619	CB	GLU	R	288	8.364	20.608	-13.169	1.00	98.36	R	C
ATOMO	2620	CG	GLU	R	288	8.288	21.663	-14.287	1.00	96.79	R	C
ATOMO	2621	CD	GLU	R	288	7.189	21.296	-15.253	1.00	96.23	R	C
ATOMO	2622	OE1	GLU	R	288	6.418	20.383	-14.968	1.00	95.74	R	O
ATOMO	2623	OE2	GLU	R	288	7.114	21.939	-16.289	1.00	95.82	R	O
ATOMO	2624	C	GLU	R	288	8.475	20.990	-10.695	1.00	98.28	R	C
ATOMO	2625	O	GLU	R	288	8.806	21.999	-10.105	1.00	99.09	R	O
ATOMO	2626	N	ASN	R	293	15.776	13.988	-4.556	1.00	96.30	R	N
ATOMO	2627	CA	ASN	R	293	16.678	13.056	-5.247	1.00	94.19	R	C
ATOMO	2628	CB	ASN	R	293	16.082	11.655	-5.105	1.00	94.17	R	C
ATOMO	2629	C	ASN	R	293	16.848	13.400	-6.723	1.00	93.16	R	C
ATOMO	2630	O	ASN	R	293	17.584	12.788	-7.497	1.00	93.06	R	O
ATOMO	2631	N	THR	R	294	16.059	14.403	-7.132	1.00	91.21	R	N
ATOMO	2632	CA	THR	R	294	15.794	14.564	-8.540	1.00	89.29	R	C
ATOMO	2633	CB	THR	R	294	14.284	14.787	-8.711	1.00	89.60	R	C
ATOMO	2634	OG1	THR	R	294	13.617	13.719	-8.060	1.00	90.25	R	O
ATOMO	2635	CG2	THR	R	294	13.874	14.837	-10.198	1.00	89.47	R	C
ATOMO	2636	C	THR	R	294	16.596	15.682	-9.162	1.00	87.98	R	C
ATOMO	2637	O	THR	R	294	17.329	16.461	-8.558	1.00	88.24	R	O
ATOMO	2638	N	SER	R	295	16.502	15.680	-10.483	1.00	85.90	R	N
ATOMO	2639	CA	SER	R	295	17.297	16.611	-11.209	1.00	83.53	R	C
ATOMO	2640	CB	SER	R	295	18.671	15.968	-11.391	1.00	83.77	R	C
ATOMO	2641	OG	SER	R	295	19.141	15.529	-10.111	1.00	83.53	R	O
ATOMO	2642	C	SER	R	295	16.643	16.780	-12.538	1.00	81.72	R	C
ATOMO	2643	O	SER	R	295	15.926	15.900	-12.998	1.00	81.17	R	O
ATOMO	2644	N	CYS	R	296	16.885	17.964	-13.112	1.00	80.55	R	N
ATOMO	2645	CA	CYS	R	296	16.281	18.168	-14.431	1.00	79.65	R	C
ATOMO	2646	C	CYS	R	296	16.939	19.321	-15.191	1.00	77.11	R	C
ATOMO	2647	O	CYS	R	296	17.746	20.071	-14.657	1.00	76.87	R	O
ATOMO	2648	CB	CYS	R	296	14.793	18.467	-14.245	1.00	82.55	R	C
ATOMO	2649	SG	CYS	R	296	14.487	19.494	-12.793	1.00	87.30	R	S
ATOMO	2650	N	PHE	R	297	16.583	19.327	-16.478	1.00	74.68	R	N
ATOMO	2651	CA	PHE	R	297	17.301	20.129	-17.437	1.00	72.94	R	C
ATOMO	2652	CB	PHE	R	297	18.463	19.266	-17.930	1.00	69.47	R	C
ATOMO	2653	CG	PHE	R	297	18.954	19.781	-19.242	1.00	66.15	R	C
ATOMO	2654	CD1	PHE	R	297	19.634	20.988	-19.284	1.00	64.52	R	C
ATOMO	2655	CD2	PHE	R	297	18.663	19.094	-20.408	1.00	65.09	R	C
ATOMO	2656	CE1	PHE	R	297	20.028	21.514	-20.507	1.00	63.49	R	C
ATOMO	2657	CE2	PHE	R	297	19.061	19.625	-21.633	1.00	64.98	R	C
ATOMO	2658	CZ	PHE	R	297	19.742	20.836	-21.686	1.00	63.88	R	C
ATOMO	2659	C	PHE	R	297	16.370	20.482	-18.598	1.00	73.41	R	C
ATOMO	2660	O	PHE	R	297	15.776	19.621	-19.241	1.00	73.80	R	O
ATOMO	2661	N	MET	R	298	16.197	21.802	-18.807	1.00	74.36	R	N
ATOMO	2662	CA	MET	R	298	15.244	22.231	-19.825	1.00	74.98	R	C
ATOMO	2663	CB	MET	R	298	14.809	23.660	-19.491	1.00	78.07	R	C
ATOMO	2664	CG	MET	R	298	13.351	23.736	-19.032	1.00	81.75	R	C
ATOMO	2665	SD	MET	R	298	12.238	24.191	-20.368	1.00	87.08	R	S
ATOMO	2666	CE	MET	R	298	10.798	23.265	-19.817	1.00	85.81	R	C
ATOMO	2667	C	MET	R	298	15.850	22.186	-21.235	1.00	73.57	R	C
ATOMO	2668	O	MET	R	298	16.835	22.840	-21.542	1.00	72.23	R	O
ATOMO	2669	N	VAL	R	299	15.243	21.340	-22.087	1.00	73.62	R	N
ATOMO	2670	CA	VAL	R	299	15.682	21.263	-23.476	1.00	74.43	R	C
ATOMO	2671	CB	VAL	R	299	15.274	19.896	-24.016	1.00	74.27	R	C
ATOMO	2672	CG1	VAL	R	299	15.621	19.794	-25.502	1.00	73.21	R	C
ATOMO	2673	CG2	VAL	R	299	15.969	18.788	-23.253	1.00	73.35	R	C
ATOMO	267.4	C	VAL	R	299	14.984	22.332	-24.307	1.00	75.41	R	C
ATOMO	2675	O	VAL	R	299	13.754	22.362	-24.417	1.00	76.00	R	O
ATOMO	2676	N	PRO	R	300	15.766	23.256	-24.877	1.00	76.10	R	N
ATOMO	2677	CD	PRO	R	300	17.231	23.367	-24.920	1.00	75.65	R	C
ATOMO	2678	CA	PRO	R	300	15.182	24.338	-25.621	1.00	76.85	R	C
ATOMO	2679	CB	PRO	R	300	16.211	25.445	-25.714	1.00	75.84	R	C
ATOMO	2680	CG	PRO	R	300	17.584	24.885	-25.326	1.00	76.48	R	C
ATOMO	2681	C	PRO	R	300	14.788	23.872	-27.029	1.00	77.72	R	C
ATOMO	2682	O	PRO	R	300	15.439	23.062	-27.659	1.00	77.18	R	O
ATOMO	2683	N	GLY	R	301	13.653	24.369	-27.508	1.00	79.03	R	N

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ÁTOMO	2684	CA	GLY	R	301	13.330	24.157	-28.925	1.00	80.40	R	C
ÁTOMO	2685	C	GLY	R	301	12.452	22.923	-29.217	1.00	82.28	R	C
ÁTOMO	2686	O	GLY	R	301	12.762	22.105	-30.061	1.00	82.07	R	O
ÁTOMO	2687	N	VAL	R	302	11.340	22.803	-28.482	1.00	83.95	R	N
ÁTOMO	2688	CA	VAL	R	302	10.336	21.802	-28.727	1.00	86.24	R	C
ÁTOMO	2689	CB	VAL	R	302	10.530	20.719	-27.697	1.00	85.51	R	C
ÁTOMO	2690	CG	VAL	R	302	10.253	19.323	-28.323	1.00	84.83	R	C
ÁTOMO	2691	CG	VAL	R	302	12.009	20.744	-27.282	1.00	84.47	R	C
ÁTOMO	2692	C	VAL	R	302	8.905	22.365	-28.811	1.00	87.97	R	C
ÁTOMO	2693	O	VAL	R	302	8.717	23.561	-29.002	1.00	88.68	R	O
ÁTOMO	2694	N	LEU	R	303	7.882	21.462	-28.616	1.00	90.03	R	N
ÁTOMO	2695	CA	LEU	R	303	6.591	21.538	-29.421	1.00	91.47	R	C
ÁTOMO	2696	CB	LEU	R	303	6.528	20.691	-30.692	1.00	92.45	R	C
ÁTOMO	2697	CG	LEU	R	303	7.913	20.421	-31.277	1.00	93.46	R	C
ÁTOMO	2698	CD	LEU	R	303	7.925	19.130	-32.088	1.00	93.46	R	C
ÁTOMO	2699	CD	LEU	R	303	8.437	21.518	-32.194	1.00	93.79	R	C
ÁTOMO	2700	C	LEU	R	303	5.161	21.816	-28.787	1.00	92.36	R	C
ÁTOMO	2701	O	LEU	R	303	5.009	22.832	-28.151	1.00	92.58	R	O
ÁTOMO	2702	N	PRO	R	304	4.117	20.908	-28.913	1.00	92.77	R	N
ÁTOMO	2703	CD	PRO	R	304	2.701	21.191	-29.072	1.00	93.52	R	C
ÁTOMO	2704	CA	PRO	R	304	4.243	19.458	-28.646	1.00	92.92	R	C
ÁTOMO	2705	CB	PRO	R	304	2.973	15.087	-27.857	1.00	92.91	R	C
ÁTOMO	2706	CG	PRO	R	304	1.865	20.024	-28.339	1.00	93.42	R	C
ÁTOMO	2707	C	PRO	R	304	4.280	18.542	-29.935	1.00	92.84	R	C
ÁTOMO	2708	O	PRO	R	304	3.308	17.898	-30.245	1.00	92.36	R	O
ÁTOMO	2709	N	ASP	R	305	5.401	18.532	-30.664	1.00	92.50	R	N
ÁTOMO	2710	CA	ASP	R	305	5.465	18.034	-32.072	1.00	91.71	R	C
ÁTOMO	2711	CB	ASP	R	305	6.433	18.867	-32.899	1.00	92.01	R	C
ÁTOMO	2712	C	ASP	R	305	6.286	16.789	-32.066	1.00	90.87	R	C
ÁTOMO	2713	O	ASP	R	305	7.420	16.623	-32.600	1.00	91.22	R	O
ÁTOMO	2714	N	THR	R	306	6.020	16.044	-30.999	1.00	89.25	R	N
ÁTOMO	2715	CA	THR	R	306	6.861	15.107	-30.538	1.00	87.16	R	C
ÁTOMO	2716	CB	THR	R	306	6.120	15.104	-29.244	1.00	87.79	R	C
ÁTOMO	2717	C	THR	R	306	6.536	14.110	-31.632	1.00	85.68	R	C
ÁTOMO	2718	O	THR	R	306	6.144	14.642	-32.721	1.00	86.73	R	O
ÁTOMO	2719	N	LEU	R	307	6.647	12.740	-31.554	1.00	83.46	R	N
ÁTOMO	2720	CA	LEU	R	307	7.670	12.045	-30.710	1.00	81.38	R	C
ÁTOMO	2721	CB	LEU	R	307	7.861	10.885	-31.609	1.00	83.33	R	C
ÁTOMO	2722	CG	LEU	R	307	7.911	9.727	-30.735	1.00	84.50	R	C
ÁTOMO	2723	CD1	LEU	R	307	7.057	9.946	-29.505	1.00	85.37	R	C
ÁTOMO	2724	CD2	LEU	R	307	7.478	8.454	-31.417	1.00	84.85	R	C
ÁTOMO	2725	C	LEU	R	307	9.024	12.795	-30.662	1.00	78.72	R	C
ÁTOMO	2726	O	LEU	R	307	9.802	12.910	-31.602	1.00	77.76	R	O
ÁTOMO	2727	N	ASN	R	308	9.241	13.110	-29.379	1.00	74.87	R	N
ÁTOMO	2728	CA	ASN	R	308	10.604	13.198	-28.882	1.00	70.88	R	C
ÁTOMO	2729	CB	ASN	R	308	10.764	14.553	-28.180	1.00	71.05	R	C
ÁTOMO	2730	CG	ASN	R	308	10.584	15.666	-29.187	1.00	71.32	R	C
ÁTOMO	2731	OD1	ASN	R	308	11.524	16.086	-29.860	1.00	69.42	R	O
ÁTOMO	2732	ND2	ASN	R	308	9.330	16.145	-29.307	1.00	72.76	R	N
ÁTOMO	2733	C	ASN	R	308	10.837	12.039	-27.921	1.00	67.32	R	C
ÁTOMO	2734	O	ASN	R	308	10.101	11.855	-26.960	1.00	66.33	R	O
ÁTOMO	2735	N	THR	R	309	11.943	11.335	-28.154	1.00	63.68	R	N
ÁTOMO	2736	CA	THR	R	309	12.474	10.361	-27.219	1.00	60.57	R	C
ÁTOMO	2737	CB	THR	R	309	12.801	9.120	-27.933	1.00	61.54	R	C

ÁTOMO	2738	OG1	THR	R	309	11.548	8.609	-28.443	1.00	61.79	R	O
ÁTOMO	2739	CG2	THR	R	309	13.202	8.074	-26.978	1.00	60.41	R	C
ÁTOMO	2740	C	THR	R	309	13.709	10.821	-26.516	1.00	57.31	R	C
ÁTOMO	2741	O	THR	R	309	14.518	11.399	-27.106	1.00	56.57	R	O
ÁTOMO	2742	N	VAL	R	310	13.719	10.662	-25.207	1.00	54.47	R	N
ÁTOMO	2743	CA	VAL	R	310	14.811	10.972	-24.379	1.00	52.38	R	C
ÁTOMO	2744	CB	VAL	R	310	14.650	12.236	-23.544	1.00	51.82	R	C
ÁTOMO	2745	CG1	VAL	R	310	13.410	12.691	-23.283	1.00	52.41	R	C
ÁTOMO	2746	CG2	VAL	R	310	15.644	12.478	-22.538	1.00	47.67	R	C
ÁTOMO	2747	C	VAL	R	310	15.498	9.854	-23.760	1.00	52.00	R	C
ÁTOMO	2748	O	VAL	R	310	14.832	8.965	-23.452	1.00	51.06	R	O
ÁTOMO	2749	N	ARG	R	311	16.844	9.881	-23.680	1.00	50.39	R	N
ÁTOMO	2750	CA	ARG	R	311	17.636	9.044	-22.827	1.00	50.34	R	C
ÁTOMO	2751	CB	ARG	R	311	18.382	8.071	-23.685	1.00	49.77	R	C
ÁTOMO	2752	CG	ARG	R	311	17.466	7.131	-24.231	1.00	50.33	R	C
ÁTOMO	2753	CD	ARG	R	311	18.225	5.951	-24.887	1.00	48.25	R	C
ÁTOMO	2754	NE	ARG	R	311	19.164	6.449	-25.845	1.00	48.40	R	N
ÁTOMO	2755	CZ	ARG	R	311	20.094	5.686	-26.333	1.00	47.77	R	C
ÁTOMO	2756	NH1	ARG	R	311	20.286	4.483	-25.817	1.00	47.01	R	N
ÁTOMO	2757	NH2	ARG	R	311	20.930	6.183	-27.166	1.00	44.86	R	N
ÁTOMO	2758	C	ARG	R	311	18.638	9.873	-22.106	1.00	50.05	R	C
ÁTOMO	2759	O	ARG	R	311	19.160	10.849	-22.564	1.00	50.01	R	O
ÁTOMO	2760	N	ILE	R	312	19.005	9.397	-20.972	1.00	49.27	R	N
ÁTOMO	2761	CA	ILE	R	312	20.054	10.009	-20.194	1.00	48.58	R	C
ÁTOMO	2762	CB	ILE	R	312	19.425	10.760	-18.938	1.00	48.15	R	C
ÁTOMO	2763	CG2	ILE	R	312	20.437	11.526	-18.285	1.00	45.62	R	C
ÁTOMO	2764	CG1	ILE	R	312	18.335	11.630	-19.384	1.00	47.07	R	C
ÁTOMO	2765	CD1	ILE	R	312	17.552	12.196	-18.148	1.00	47.91	R	C
ÁTOMO	2766	C	ILE	R	312	21.130	9.104	-19.668	1.00	47.90	R	C
ÁTOMO	2767	O	ILE	R	312	20.812	8.075	-19.145	1.00	48.77	R	O
ÁTOMO	2768	N	ARG	R	313	22.397	9.485	-19.792	1.00	46.57	R	N
ÁTOMO	2769	CA	ARG	R	313	23.455	8.761	-19.035	1.00	46.06	R	C
ÁTOMO	2770	CB	ARG	R	313	24.443	8.114	-20.054	1.00	45.95	R	C
ÁTOMO	2771	CG	ARG	R	313	25.120	8.994	-20.854	1.00	43.85	R	C
ÁTOMO	2772	CD	ARG	R	313	25.770	8.153	-22.104	1.00	45.64	R	C
ÁTOMO	2773	NE	ARG	R	313	26.641	8.967	-22.942	1.00	47.51	R	N
ÁTOMO	2774	CZ	ARG	R	313	27.615	8.467	-23.644	1.00	48.52	R	C
ÁTOMO	2775	NH1	ARG	R	313	27.780	7.223	-23.634	1.00	48.93	R	N
ÁTOMO	2776	NH2	ARG	R	313	28.440	9.211	-24.327	1.00	48.72	R	N
ÁTOMO	2777	C	ARG	R	313	24.216	9.675	-18.156	1.00	46.35	R	C
ÁTOMO	2778	O	ARG	R	313	24.101	10.926	-18.315	1.00	44.37	R	O
ÁTOMO	2779	N	VAL	R	314	25.221	9.158	-17.462	1.00	45.29	R	N
ÁTOMO	2780	CA	VAL	R	314	25.783	9.929	-16.364	1.00	45.74	R	C
ÁTOMO	2781	CB	VAL	R	314	24.867	9.539	-15.130	1.00	46.13	R	C
ÁTOMO	2782	CG1	VAL	R	314	25.561	9.400	-13.942	1.00	47.48	R	C
ÁTOMO	2783	CG2	VAL	R	314	23.644	10.474	-15.035	1.00	44.87	R	C
ÁTOMO	2784	C	VAL	R	314	27.213	9.495	-16.103	1.00	45.86	R	C
ÁTOMO	2785	O	VAL	R	314	27.549	8.410	-16.273	1.00	45.19	R	O
ÁTOMO	2786	N	LYS	R	315	28.012	10.410	-15.597	1.00	45.17	R	N
ÁTOMO	2787	CA	LYS	R	315	29.411	10.186	-15.205	1.00	45.60	R	C
ÁTOMO	2788	CB	LYS	R	315	30.396	10.453	-16.373	1.00	45.36	R	C
ÁTOMO	2789	CG	LYS	R	315	30.500	11.871	-16.660	1.00	47.28	R	C
ÁTOMO	2790	CD	LYS	R	315	31.601	12.117	-17.811	1.00	47.54	R	C
ÁTOMO	2791	CE	LYS	R	315	31.724	13.600	-18.055	1.00	48.20	R	C
ÁTOMO	2792	NZ	LYS	R	315	32.778	13.957	-19.216	1.00	47.70	R	N
ÁTOMO	2793	C	LYS	R	315	29.860	10.915	-14.049	1.00	44.27	R	C
ÁTOMO	2794	O	LYS	R	315	29.239	11.844	-13.662	1.00	45.27	R	O
ÁTOMO	2795	N	THR	R	316	30.993	10.563	-13.451	1.00	43.47	R	N
ÁTOMO	2796	CA	THR	R	316	31.399	11.337	-12.235	1.00	42.83	R	C

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ATOMO	2797	CB	THR	R	316	32.394	10.587	-11.331	1.00	42.26	R	C
ATOMO	2798	OG1	THR	R	316	33.362	10.177	-12.194	1.00	42.09	R	O
ATOMO	2799	CG2	THR	R	316	31.767	9.355	-10.816	1.00	40.88	R	C
ATOMO	2800	C	THR	R	316	32.110	12.606	-12.705	1.00	43.10	R	C
ATOMO	2801	O	THR	R	316	32.803	12.506	-13.640	1.00	41.11	R	O
ATOMO	2802	N	ASN	R	317	31.873	13.816	-12.092	1.00	43.52	R	N
ATOMO	2803	CA	ASN	R	317	32.661	14.997	-12.130	1.00	46.38	R	C
ATOMO	2804	CB	ASN	R	317	32.123	16.013	-10.778	1.00	46.56	R	C
ATOMO	2805	CG	ASN	R	317	31.132	16.678	-11.276	1.00	50.66	R	C
ATOMO	2806	OD1	ASN	R	317	31.227	16.780	-12.543	1.00	54.75	R	O
ATOMO	2807	ND2	ASN	R	317	30.170	17.164	-10.603	1.00	51.29	R	N
ATOMO	2808	C	ASN	R	317	34.136	14.786	-11.786	1.00	47.72	R	C
ATOMO	2809	O	ASN	R	317	34.335	13.899	-11.074	1.00	47.46	R	O
ATOMO	2810	N	LYS	R	318	34.945	15.799	-11.916	1.00	48.90	R	N
ATOMO	2811	CA	LYS	R	318	36.301	15.935	-11.309	1.00	50.22	R	C
ATOMO	2812	CB	LYS	R	318	37.303	16.666	-12.338	1.00	52.02	R	C
ATOMO	2813	CG	LYS	R	318	37.001	18.223	-12.395	1.00	54.66	R	C
ATOMO	2814	CD	LYS	R	318	38.028	19.020	-13.178	1.00	56.69	R	C
ATOMO	2815	CE	LYS	R	318	37.332	19.973	-14.178	1.00	60.37	R	C
ATOMO	2816	NZ	LYS	R	318	38.027	21.279	-14.250	1.00	62.52	R	N
ATOMO	2817	C	LYS	R	318	36.319	16.583	-9.871	1.00	49.36	R	C
ATOMO	2818	O	LYS	R	318	37.357	16.477	-9.205	1.00	47.93	R	O
ATOMO	2819	N	LEU	R	319	35.118	16.836	-9.312	1.00	49.14	R	N
ATOMO	2820	CA	LEU	R	319	34.979	17.469	-8.010	1.00	50.76	R	C
ATOMO	2821	CB	LEU	R	319	33.815	18.468	-8.032	1.00	49.52	R	C
ATOMO	2822	CG	LEU	R	319	33.842	19.321	-9.298	1.00	49.50	R	C
ATOMO	2823	CD1	LEU	R	319	32.549	20.109	-9.435	1.00	51.14	R	C
ATOMO	2824	CD2	LEU	R	319	34.945	20.362	-9.298	1.00	49.08	R	C
ATOMO	2825	C	LEU	R	319	34.826	16.488	-6.821	1.00	51.66	R	C
ATOMO	2826	O	LEU	R	319	35.153	16.826	-5.671	1.00	52.10	R	O
ATOMO	2827	N	CYS	R	320	34.255	15.280	-7.087	1.00	52.91	R	N
ATOMO	2828	CA	CYS	R	320	34.143	14.287	-6.015	1.00	54.27	R	C
ATOMO	2829	C	CYS	R	320	35.100	13.111	-6.283	1.00	54.38	R	C
ATOMO	2830	O	CYS	R	320	35.793	12.594	-5.408	1.00	54.35	R	O
ATOMO	2831	CB	CYS	R	320	32.670	13.787	-5.987	1.00	54.57	R	C
ATOMO	2832	SG	CYS	R	320	31.444	15.094	-5.670	1.00	55.67	R	S
ATOMO	2833	N	TYR	R	321	35.052	12.647	-7.540	1.00	55.44	R	N
ATOMO	2834	CA	TYR	R	321	35.921	11.566	-7.924	1.00	57.49	R	C
ATOMO	2835	CB	TYR	R	321	35.038	10.437	-8.520	1.00	57.62	R	C
ATOMO	2836	CG	TYR	R	321	34.109	9.835	-7.496	1.00	57.79	R	C
ATOMO	2837	CD1	TYR	R	321	34.556	8.880	-6.570	1.00	58.25	R	C
ATOMO	2838	CE1	TYR	R	321	33.703	8.424	-5.563	1.00	58.54	R	C
ATOMO	2839	CD2	TYR	R	321	32.779	10.271	-7.435	1.00	57.08	R	C
ATOMO	2840	CE2	TYR	R	321	31.940	9.831	-6.417	1.00	58.22	R	C
ATOMO	2841	CZ	TYR	R	321	32.377	8.910	-5.496	1.00	58.87	R	C
ATOMO	2842	OH	TYR	R	321	31.560	8.536	-4.446	1.00	60.59	R	O
ATOMO	2843	C	TYR	R	321	36.869	12.128	-8.981	1.00	58.70	R	C
ATOMO	2844	O	TYR	R	321	37.605	13.095	-8.757	1.00	59.32	R	O
ATOMO	2845	N	GLU	R	322	36.780	11.530	-10.162	1.00	60.73	R	N
ATOMO	2846	CA	GLU	R	322	37.583	12.049	-11.231	1.00	62.41	R	C
ATOMO	2847	CB	GLU	R	322	38.796	11.128	-11.294	1.00	64.08	R	C
ATOMO	2848	CG	GLU	R	322	39.983	11.698	-12.070	1.00	70.34	R	C
ATOMO	2849	CD	GLU	R	322	41.272	11.321	-11.396	1.00	74.50	R	C
ATOMO	2850	OE1	GLU	R	322	42.167	10.866	-12.082	1.00	77.21	R	O
ATOMO	2851	OE2	GLU	R	322	41.371	11.497	-10.186	1.00	76.90	R	O
ATOMO	2852	C	GLU	R	322	36.754	11.978	-12.512	1.00	61.99	R	C
ATOMO	2853	O	GLU	R	322	35.916	11.105	-12.684	1.00	61.32	R	O
ATOMO	2854	N	ASP	R	323	36.944	12.970	-13.403	1.00	62.19	R	N

ÁTOMO	2855	CA	ASP	R	323	36.259	12.864	-14.685	1.00	61.61	R	C
ÁTOMO	2856	CB	ASP	R	323	36.043	14.277	-15.247	1.00	61.34	R	C
ÁTOMO	2857	CG	ASP	R	323	35.390	14.308	-16.635	1.00	62.54	R	C
ÁTOMO	2858	OD1	ASP	R	323	35.228	13.261	-17.257	1.00	61.23	R	O
ÁTOMO	2859	OD2	ASP	R	323	35.086	15.409	-17.097	1.00	62.92	R	O
ÁTOMO	2860	C	ASP	R	323	37.139	12.053	-15.616	1.00	60.90	R	C
ÁTOMO	2861	O	ASP	R	323	37.947	12.567	-16.354	1.00	61.75	R	O
ÁTOMO	2862	N	ASP	R	324	36.753	10.813	-15.617	1.00	59.09	R	N
ÁTOMO	2863	CA	ASP	R	324	37.332	9.795	-16.458	1.00	59.54	R	C
ÁTOMO	2864	CB	ASP	R	324	37.447	8.433	-15.700	1.00	58.18	R	C
ÁTOMO	2865	CG	ASP	R	324	38.404	8.540	-14.456	1.00	58.12	R	C
ÁTOMO	2866	OD1	ASP	R	324	39.614	8.828	-14.657	1.00	55.65	R	O
ÁTOMO	2867	OD2	ASP	R	324	37.944	8.405	-13.275	1.00	57.00	R	O
ÁTOMO	2868	C	ASP	R	324	36.554	9.666	-17.764	1.00	59.69	R	C
ÁTOMO	2869	O	ASP	R	324	36.891	8.855	-18.629	1.00	59.37	R	O
ÁTOMO	2870	N	LYS	R	325	35.502	10.483	-17.906	1.00	59.38	R	N
ÁTOMO	2871	CA	LYS	R	325	34.622	10.260	-19.064	1.00	58.80	R	C
ÁTOMO	2872	CB	LYS	R	325	35.382	10.517	-20.361	1.00	59.63	R	C
ÁTOMO	2873	CG	LYS	R	325	36.262	11.761	-20.325	1.00	63.37	R	C
ÁTOMO	2874	CD	LYS	R	325	36.858	12.029	-21.703	1.00	65.79	R	C
ÁTOMO	2875	CE	LYS	R	325	37.800	13.230	-21.724	1.00	68.06	R	C
ÁTOMO	2876	NZ	LYS	R	325	37.884	13.752	-23.087	1.00	70.49	R	N
ÁTOMO	2877	C	LYS	R	325	34.087	8.839	-19.095	1.00	57.15	R	C
ÁTOMO	2878	O	LYS	R	325	33.972	8.198	-20.135	1.00	58.69	R	O
ÁTOMO	2879	N	LEU	R	326	33.803	8.331	-17.897	1.00	55.16	R	N
ÁTOMO	2880	CA	LEU	R	326	33.319	6.971	-17.802	1.00	52.10	R	C
ÁTOMO	2881	CB	LEU	R	326	33.986	6.352	-16.573	1.00	54.79	R	C
ÁTOMO	2882	CG	LEU	R	326	34.495	4.932	-16.818	1.00	55.97	R	C
ÁTOMO	2883	CD1	LEU	R	236	34.879	4.213	-15.523	1.00	57.62	R	C
ÁTOMO	2884	CD2	LEU	R	326	33.462	4.049	-17.512	1.00	54.38	R	C
ÁTOMO	2885	C	LEU	R	326	31.808	6.992	-17.637	1.00	50.09	R	C
ÁTOMO	2886	O	LEU	R	326	31.281	7.045	-16.536	1.00	48.96	R	O
ÁTOMO	2887	N	TRP	R	327	31.102	7.012	-18.793	1.00	47.72	R	N
ÁTOMO	2888	CA	TRP	R	327	29.654	7.144	-18.732	1.00	47.24	R	C
ÁTOMO	2889	CB	TRP	R	327	29.148	7.466	-20.138	1.00	44.70	R	C
ÁTOMO	2890	CG	TRP	R	327	29.596	8.808	-20.562	1.00	42.51	R	C
ÁTOMO	2891	CD2	TRP	R	327	29.042	10.068	-20.137	1.00	40.90	R	C
ÁTOMO	2892	CE2	TRP	R	327	29.664	11.088	-20.904	1.00	40.28	R	C
ÁTOMO	2893	CE3	TRP	R	327	28.087	10.423	-19.188	1.00	38.85	R	C
ÁTOMO	2894	CD1	TRP	R	327	30.540	9.107	-21.567	1.00	38.56	R	C
ÁTOMO	2895	NE1	TRP	R	327	30.616	10.435	-21.836	1.00	39.52	R	N
ÁTOMO	2896	CZ2	TRP	R	327	29.329	12.415	-20.704	1.00	38.74	R	C
ÁTOMO	2897	CZ3	TRP	R	327	27.747	11.747	-18.988	1.00	38.32	R	C
ÁTOMO	2898	CH2	TRP	R	327	28.375	12.752	-19.752	1.00	39.26	R	C
ÁTOMO	2899	C	TRP	R	327	28.982	5.859	-18.245	1.00	48.40	R	C
ÁTOMO	2900	O	TRP	R	327	29.460	4.746	-18.442	1.00	48.70	R	O
ÁTOMO	2901	N	SER	R	328	27.844	6.041	-17.554	1.00	48.50	R	N
ÁTOMO	2902	CA	SER	R	328	26.995	4.889	-17.304	1.00	49.05	R	C
ÁTOMO	2903	CB	SER	R	328	25.930	5.296	-16.287	1.00	46.82	R	C
ÁTOMO	2904	OG	SER	R	328	24.983	6.165	-16.912	1.00	46.96	R	O
ÁTOMO	2905	C	SER	R	328	26.326	4.464	-18.609	1.00	49.92	R	C
ÁTOMO	2906	O	SER	R	328	26.388	5.155	-19.623	1.00	50.22	R	O
ÁTOMO	2907	N	ASN	R	329	25.712	3.267	-18.579	1.00	49.23	R	N
ÁTOMO	2908	CA	ASN	R	329	24.870	2.894	-19.704	1.00	48.88	R	C
ÁTOMO	2909	CB	ASN	R	329	24.267	1.523	-19.395	1.00	49.16	R	C
ÁTOMO	2910	CG	ASN	R	329	25.347	0.476	-19.454	1.00	50.84	R	C
ÁTOMO	2911	OD1	ASN	R	329	26.343	0.615	-20.156	1.00	51.96	R	O

ÁTOMO	2912	ND2	ASN	R	329	25.126	-0.613	-18.698	1.00	49.44	R	N
ÁTOMO	2913	C	ASN	R	329	23.743	3.915	-19.869	1.00	48.95	R	C
ÁTOMO	2914	O	ASN	R	329	23.352	4.605	-18.938	1.00	48.39	R	O
ÁTOMO	2915	N	TRP	R	330	23.240	4.032	-21.113	1.00	48.80	R	N
ÁTOMO	2916	CA	TRP	R	330	22.086	4.893	-21.323	1.00	48.88	R	C
ÁTOMO	2917	CB	TRP	R	330	21.711	4.851	-22.808	1.00	48.23	R	C
ÁTOMO	2918	CG	TRP	R	330	22.688	5.621	-23.615	1.00	47.23	R	C
ÁTOMO	2919	CD2	TRP	R	330	22.784	7.064	-23.719	1.00	47.22	R	C
ÁTOMO	2920	CE2	TRP	R	330	23.799	7.348	-24.670	1.00	46.29	R	C
ÁTOMO	2921	CE3	TRP	R	330	22.123	8.119	-23.095	1.00	46.83	R	C
ÁTOMO	2922	CD1	TRP	R	330	23.645	5.091	-24.508	1.00	47.29	R	C
ÁTOMO	2923	NE1	TRP	R	330	24.333	6.058	-25.170	1.00	47.42	R	N
ÁTOMO	2924	CZ2	TRP	R	330	24.116	8.662	-24.973	1.00	45.44	R	C
ÁTOMO	2925	CZ3	TRP	R	330	22.440	9.433	-23.398	1.00	46.73	R	C
ÁTOMO	2926	CH2	TRP	R	330	23.448	9.704	-24.340	1.00	44.89	R	C
ÁTOMO	2927	C	TRP	R	330	20.902	4.414	-20.481	1.00	48.65	R	C
ÁTOMO	2928	O	TRP	R	330	20.674	3.224	-20.306	1.00	50.55	R	O
ÁTOMO	2929	N	SER	R	331	20.152	5.378	-19.917	1.00	49.56	R	N
ÁTOMO	2930	CA	SER	R	331	18.928	4.997	-19.225	1.00	50.78	R	C
ÁTOMO	2931	CB	SER	R	331	18.324	6.262	-18.613	1.00	49.15	R	C
ÁTOMO	2932	OG	SER	R	331	17.739	7.052	-19.650	1.00	47.98	R	O
ÁTOMO	2933	C	SER	R	331	17.935	4.392	-20.213	1.00	53.51	R	C
ÁTOMO	2934	O	SER	R	331	18.126	4.413	-21.421	1.00	54.38	R	O
ÁTOMO	2935	N	GLN	R	332	16.863	3.797	-19.663	1.00	55.70	R	N
ÁTOMO	2936	CA	GLN	R	332	15.769	3.410	-20.539	1.00	58.54	R	C
ÁTOMO	2937	CB	GLN	R	332	14.796	2.547	-19.739	1.00	59.23	R	C
ÁTOMO	2938	CG	GLN	R	332	15.428	1.227	-19.293	1.00	63.58	R	C
ÁTOMO	2939	CD	GLN	R	332	15.638	0.339	-20.497	1.00	66.03	R	C
ÁTOMO	2940	OE1	GLN	R	332	14.717	-0.152	-21.127	1.00	68.61	R	O
ÁTOMO	2941	NE2	GLN	R	332	16.935	0.132	-20.801	1.00	66.39	R	N
ÁTOMO	2942	C	GLN	R	332	15.071	4.664	-21.056	1.00	58.92	R	C
ÁTOMO	2943	O	GLN	R	332	15.113	5.728	-20.452	1.00	58.59	R	O
ÁTOMO	2944	N	GLU	R	333	14.454	4.539	-22.238	1.00	59.74	R	N
ÁTOMO	2945	CA	GLU	R	333	13.906	5.743	-22.834	1.00	61.05	R	C
ÁTOMO	2946	CB	GLU	R	333	13.842	5.582	-24.354	1.00	60.90	R	C
ÁTOMO	2947	CG	GLU	R	333	13.447	4.175	-24.795	1.00	63.18	R	C
ÁTOMO	2948	CD	GLU	R	333	13.527	4.097	-26.303	1.00	64.95	R	C
ÁTOMO	2949	OE1	GLU	R	333	12.589	4.523	-26.962	1.00	65.07	R	O
ÁTOMO	2950	OE2	GLU	R	333	14.549	3.637	-26.810	1.00	65.85	R	O
ÁTOMO	2951	C	GLU	R	333	12.531	6.097	-22.286	1.00	61.41	R	C
ÁTOMO	2952	O	GLU	R	333	11.874	5.339	-21.585	1.00	62.10	R	O
ÁTOMO	2953	N	MET	R	334	12.146	7.340	-22.587	1.00	61.90	R	N
ÁTOMO	2954	CA	MET	R	334	10.780	7.764	-22.370	1.00	63.08	R	C
ÁTOMO	2955	CB	MET	R	334	10.672	8.375	-20.973	1.00	63.01	R	C
ÁTOMO	2956	CG	MET	R	334	9.392	9.195	-20.797	1.00	63.17	R	C
ÁTOMO	2957	SD	MET	R	334	9.099	9.651	-19.083	1.00	65.16	R	S
ÁTOMO	2958	CE	MET	R	334	9.266	8.012	-18.359	1.00	62.36	R	C
ÁTOMO	2959	C	MET	R	334	10.413	8.803	-23.418	1.00	63.76	R	C
ÁTOMO	2960	O	MET	R	334	11.200	9.678	-23.756	1.00	63.58	R	O
ÁTOMO	2961	N	SER	R	335	9.262	8.748	-24.104	1.00	64.91	R	N
ÁTOMO	2962	CA	SER	R	335	8.835	9.719	-25.151	1.00	66.20	R	C
ÁTOMO	2963	CB	SER	R	335	8.655	9.130	-26.526	1.00	66.23	R	C
ÁTOMO	2964	OG	SER	R	335	8.514	7.778	-26.432	1.00	68.31	R	O
ÁTOMO	2965	C	SER	R	335	7.623	10.532	-24.740	1.00	67.14	R	C
ÁTOMO	2966	O	SER	R	335	7.164	10.355	-23.583	1.00	66.71	R	O
ÁTOMO	2967	N	ILE	R	336	7.284	11.530	-25.565	1.00	68.37	R	N
ÁTOMO	2968	CA	ILE	R	336	6.234	12.514	-25.362	1.00	70.69	R	C
ÁTOMO	2969	CB	ILE	R	336	6.666	13.696	-24.423	1.00	70.06	R	C
ÁTOMO	2970	CG2	ILE	R	336	7.733	14.619	-25.063	1.00	69.34	R	C

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ÁTOMO	2971	CG1	ILE	R	336	5.485	14.609	-24.079	1.00	69.89	R	C
ÁTOMO	2972	CD1	ILE	R	336	5.781	15.765	-23.018	1.00	69.80	R	C
ÁTOMO	2973	C	ILE	R	336	5.835	13.142	-26.728	1.00	73.10	R	C
ÁTOMO	2974	O	ILE	R	336	6.690	13.231	-27.607	1.00	73.37	R	O
ÁTOMO	2975	N	GLY	R	337	4.574	13.597	-26.834	1.00	75.30	R	N
ÁTOMO	2976	CA	GLY	R	337	3.906	14.093	-28.019	1.00	77.98	R	C
ÁTOMO	2977	C	GLY	R	337	3.582	12.991	-28.991	1.00	80.70	R	C
ÁTOMO	2978	O	GLY	R	337	3.771	11.830	-28.623	1.00	80.91	R	O
ÁTOMO	2979	N	LYS	R	338	3.080	13.348	-30.199	1.00	83.73	R	N
ÁTOMO	2980	CA	LYS	R	338	2.940	12.390	-31.351	1.00	86.40	R	C
ÁTOMO	2981	CB	LYS	R	338	1.772	11.391	-31.148	1.00	87.18	R	C
ÁTOMO	2982	CG	LYS	R	338	2.124	9.953	-31.819	1.00	88.18	R	C
ÁTOMO	2983	CD	LYS	R	338	2.463	8.709	-30.943	1.00	89.20	R	C
ÁTOMO	2984	CE	LYS	R	338	2.614	7.349	-31.841	1.00	90.05	R	C
ÁTOMO	2985	NZ	LYS	R	338	3.830	7.108	-32.718	1.00	90.07	R	N
ÁTOMO	2986	C	LYS	R	338	3.012	12.883	-32.821	1.00	87.92	R	C
ÁTOMO	2987	O	LYS	R	338	3.053	14.078	-33.092	1.00	88.32	R	O
ÁTOMO	2988	N	LYS	R	339	3.244	11.860	-33.664	1.00	89.43	R	N
ÁTOMO	2989	CA	LYS	R	339	2.989	11.514	-35.098	1.00	90.66	R	C
ÁTOMO	2990	CB	LYS	R	339	3.608	12.487	-36.108	1.00	90.65	R	C
ÁTOMO	2991	C	LYS	R	339	3.687	10.064	-35.124	1.00	91.59	R	C
ÁTOMO	2992	O	LYS	R	339	4.948	9.729	-35.171	1.00	92.23	R	O
ÁTOMO	2993	OXT	LYS	R	339	2.966	9.031	-34.894	1.00	92.68	R	O
ÁTOMO	2994	CB	ASP	L	1	45.108	47.536	19.263	1.00	55.28	L	C
ÁTOMO	2995	CG	ASP	L	1	43.772	47.248	19.777	1.00	57.07	L	C
ÁTOMO	2996	OD1	ASP	L	1	43.684	46.206	20.486	1.00	58.59	L	O
ÁTOMO	2997	OD2	ASP	L	1	42.739	47.833	19.390	1.00	58.03	L	O
ÁTOMO	2998	C	ASP	L	1	47.516	47.071	19.380	1.00	53.88	L	C
ÁTOMO	2999	O	ASP	L	1	48.114	47.863	19.920	1.00	53.80	L	O
ÁTOMO	3000	N	ASP	L	1	45.989	46.823	21.353	1.00	54.39	L	N
ÁTOMO	3001	CA	ASP	L	1	46.148	46.658	19.903	1.00	53.85	L	C
ÁTOMO	3002	N	ILE	L	2	48.035	46.579	18.249	1.00	53.02	L	N
ÁTOMO	3003	CA	ILE	L	2	49.273	47.069	17.763	1.00	51.46	L	C
ÁTOMO	3004	CB	ILE	L	2	49.731	46.111	16.746	1.00	51.89	L	C
ÁTOMO	3005	CG2	ILE	L	2	50.966	46.534	15.919	1.00	50.86	L	C
ÁTOMO	3006	CG1	ILE	L	2	50.075	44.848	17.388	1.00	51.86	L	C
ÁTOMO	3007	CD1	ILE	L	2	50.600	43.743	16.271	1.00	52.35	L	C
ÁTOMO	3008	C	ILE	L	2	49.161	48.486	17.264	1.00	50.87	L	C
ÁTOMO	3009	O	ILE	L	2	48.216	48.806	16.492	1.00	52.29	L	O
ÁTOMO	3010	N	VAL	L	3	50.048	49.374	17.741	1.00	49.99	L	N
ÁTOMO	3011	CA	VAL	L	3	50.093	50.795	17.349	1.00	47.23	L	C
ÁTOMO	3012	CB	VAL	L	3	50.385	51.693	18.564	1.00	45.72	L	C
ÁTOMO	3013	CG1	VAL	L	3	50.543	53.219	18.192	1.00	40.75	L	C
ÁTOMO	3014	CG2	VAL	L	3	49.243	51.541	19.551	1.00	44.61	L	C
ÁTOMO	3015	C	VAL	L	3	51.288	50.934	16.439	1.00	46.87	L	C
ÁTOMO	3016	O	VAL	L	3	52.288	50.411	16.719	1.00	47.44	L	O
ÁTOMO	3017	N	LEU	L	4	51.115	51.549	15.306	1.00	45.47	L	N
ÁTOMO	3018	CA	LEU	L	4	52.177	51.740	14.342	1.00	46.51	L	C
ÁTOMO	3019	CB	LEU	L	4	51.794	51.273	12.801	1.00	46.37	L	C
ÁTOMO	3020	CG	LEU	L	4	51.205	49.853	12.683	1.00	47.87	L	C
ÁTOMO	3021	CD1	LEU	L	4	50.966	49.673	11.414	1.00	47.17	L	C
ÁTOMO	3022	CD2	LEU	L	4	52.111	48.792	13.310	1.00	47.09	L	C
ÁTOMO	3023	C	LEU	L	4	52.378	53.271	14.306	1.00	45.92	L	C
ÁTOMO	3024	O	LEU	L	4	51.514	53.995	14.010	1.00	45.62	L	O
ÁTOMO	3025	N	THR	L	5	53.595	53.665	14.404	1.00	45.95	L	N
ÁTOMO	3026	CA	THR	L	5	54.023	55.006	14.373	1.00	46.85	L	C
ÁTOMO	3027	CB	THR	L	5	54.812	55.199	15.705	1.00	46.65	L	C
ÁTOMO	3028	OG1	THR	L	5	53.831	54.993	16.770	1.00	47.07	L	O
ÁTOMO	3029	CG2	THR	L	5	55.159	56.615	15.835	1.00	45.76	L	C

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ÁTOMO	3030	C	THR	L	5	54.846	55.321	13.123	1.00	46.19	L	C
ÁTOMO	3031	O	THR	L	5	55.915	54.893	13.007	1.00	47.94	L	O
ÁTOMO	3032	N	GLN	L	6	54.395	56.190	12.249	1.00	45.30	L	N
ÁTOMO	3033	CA	GLN	L	6	55.271	56.497	11.051	1.00	44.84	L	C
ÁTOMO	3034	CB	GLN	L	6	54.334	56.787	9.868	1.00	44.65	L	C
ÁTOMO	3035	CG	GLN	L	6	53.377	55.566	9.584	1.00	42.77	L	C
ÁTOMO	3036	CD	GLN	L	6	52.678	55.622	8.399	1.00	43.26	L	C
ÁTOMO	3037	OE1	GLN	L	6	51.527	55.138	8.442	1.00	40.72	L	O
ÁTOMO	3038	NE2	GLN	L	6	53.311	56.196	7.285	1.00	40.31	L	N
ÁTOMO	3039	C	GLN	L	6	56.164	57.684	11.332	1.00	44.60	L	C
ÁTOMO	3040	O	GLN	L	6	55.834	58.708	12.138	1.00	44.62	L	O
ÁTOMO	3041	N	SER	L	7	57.360	57.613	10.803	1.00	44.40	L	N
ÁTOMO	3042	CA	SER	L	7	58.136	58.881	10.869	1.00	44.64	L	C
ÁTOMO	3043	CB	SER	L	7	59.139	58.836	11.990	1.00	45.02	L	C
ÁTOMO	3044	OG	SER	L	7	59.810	57.747	12.082	1.00	43.10	L	O
ÁTOMO	3045	C	SER	L	7	58.931	58.984	9.567	1.00	44.16	L	C
ÁTOMO	3046	O	SER	L	7	59.211	57.952	9.121	1.00	43.07	L	O
ÁTOMO	3047	N	PRO	L	8	59.208	60.157	9.001	1.00	44.18	L	N
ÁTOMO	3048	CD	PRO	L	8	59.790	60.409	7.682	1.00	42.55	L	C
ÁTOMO	3049	CA	PRO	L	8	58.763	61.394	9.582	1.00	44.95	L	C
ÁTOMO	3050	CB	PRO	L	8	59.465	62.429	8.780	1.00	45.54	L	C
ÁTOMO	3051	CG	PRO	L	8	59.469	61.921	7.428	1.00	43.82	L	C
ÁTOMO	3052	C	PRO	L	8	57.272	61.528	9.399	1.00	46.33	L	C
ÁTOMO	3053	O	PRO	L	8	56.761	60.744	8.659	1.00	45.84	L	O
ÁTOMO	3054	N	ALA	L	9	56.624	62.578	9.923	1.00	46.67	L	N
ÁTOMO	3055	CA	ALA	L	9	55.199	62.817	9.692	1.00	47.31	L	C
ÁTOMO	3056	CB	ALA	L	9	54.666	63.799	10.774	1.00	44.86	L	C
ÁTOMO	3057	C	ALA	L	9	54.997	63.494	8.291	1.00	47.65	L	C
ÁTOMO	3058	O	ALA	L	9	53.994	63.269	7.637	1.00	47.24	L	O
ÁTOMO	3059	N	SER	L	10	55.954	64.256	7.850	1.00	47.39	L	N
ÁTOMO	3060	CA	SER	L	10	55.865	64.857	6.396	1.00	47.27	L	C
ÁTOMO	3061	CB	SER	L	10	55.188	66.124	6.377	1.00	47.86	L	C
ÁTOMO	3062	OG	SER	L	10	55.940	67.005	7.153	1.00	52.42	L	O
ÁTOMO	3063	C	SER	L	10	57.249	65.126	5.893	1.00	46.24	L	C
ÁTOMO	3064	O	SER	L	10	58.220	65.199	6.713	1.00	45.57	L	O
ÁTOMO	3065	N	LEU	L	11	57.436	65.116	4.556	1.00	45.55	L	N
ÁTOMO	3066	CA	LEU	L	11	58.696	65.349	4.051	1.00	47.02	L	C
ÁTOMO	3067	CB	LEU	L	11	59.677	64.273	4.174	1.00	46.19	L	C
ÁTOMO	3068	CG	LEU	L	11	59.455	62.842	3.681	1.00	48.73	L	C
ÁTOMO	3069	CD1	LEU	L	11	58.223	62.745	3.064	1.00	48.29	L	C
ÁTOMO	3070	CD2	LEU	L	11	60.627	62.242	2.868	1.00	47.04	L	C
ÁTOMO	3071	C	LEU	L	11	58.582	65.890	2.664	1.00	47.80	L	C
ÁTOMO	3072	O	LEU	L	11	57.628	65.515	2.026	1.00	49.05	L	O
ÁTOMO	3073	N	ALA	L	12	59.590	66.695	2.255	1.00	48.67	L	N
ÁTOMO	3074	CA	ALA	L	12	59.682	67.388	0.926	1.00	49.18	L	C
ÁTOMO	3075	CB	ALA	L	12	59.624	68.839	1.108	1.00	47.86	L	C
ÁTOMO	3076	C	ALA	L	12	61.038	66.951	0.353	1.00	49.73	L	C
ÁTOMO	3077	O	ALA	L	12	62.069	66.973	1.136	1.00	50.03	L	O
ÁTOMO	3078	N	VAL	L	13	61.019	66.499	-0.936	1.00	49.69	L	N
ÁTOMO	3079	CA	VAL	L	13	62.096	65.902	-1.610	1.00	49.56	L	C
ÁTOMO	3080	CB	VAL	L	13	61.867	64.417	-1.751	1.00	50.10	L	C
ÁTOMO	3081	CG1	VAL	L	13	63.090	63.700	-2.535	1.00	49.03	L	C
ÁTOMO	3082	CG2	VAL	L	13	61.881	63.650	-0.385	1.00	48.49	L	C
ÁTOMO	3083	C	VAL	L	13	62.081	66.387	-3.096	1.00	49.81	L	C
ÁTOMO	3084	O	VAL	L	13	60.965	66.532	-3.673	1.00	48.90	L	O
ÁTOMO	3085	N	SER	L	14	63.266	66.552	-3.698	1.00	51.08	L	N
ÁTOMO	3086	CA	SER	L	14	63.372	67.112	-5.090	1.00	52.59	L	C
ÁTOMO	3087	CB	SER	L	14	64.664	67.798	-5.413	1.00	53.64	L	C

ÁTOMO	3088	OG	SER	L	14	65.034	68.809	-4.530	1.00	57.54	L	O
ÁTOMO	3089	C	SER	L	14	63.196	66.058	-6.019	1.00	52.19	L	C
ÁTOMO	3090	O	SER	L	14	63.395	64.859	-5.695	1.00	50.20	L	O
ÁTOMO	3091	N	LEU	L	15	62.698	66.434	-7.134	1.00	53.27	L	N
ÁTOMO	3092	CA	LEU	L	15	62.574	65.390	-8.237	1.00	54.53	L	C
ÁTOMO	3093	CB	LEU	L	15	62.142	66.024	-9.524	1.00	55.40	L	C
ÁTOMO	3094	CG	LEU	L	15	60.716	66.501	-9.429	1.00	58.56	L	C
ÁTOMO	3095	CD1	LEU	L	15	59.911	67.289	-10.574	1.00	58.01	L	C
ÁTOMO	3096	CD2	LEU	L	15	60.005	65.204	-9.238	1.00	60.27	L	C
ÁTOMO	3097	C	LEU	L	15	63.914	64.654	-8.459	1.00	55.55	L	C
ÁTOMO	3098	O	LEU	L	15	64.930	65.289	-8.375	1.00	55.36	L	O
ÁTOMO	3099	N	GLY	L	16	63.795	63.337	-8.663	1.00	56.75	L	N
ÁTOMO	3100	CA	GLY	L	16	64.822	62.284	-8.802	1.00	58.63	L	C
ÁTOMO	3101	C	GLY	L	16	65.683	61.943	-7.633	1.00	60.16	L	C
ÁTOMO	3102	O	GLY	L	16	66.674	61.253	-7.795	1.00	61.71	L	O
ÁTOMO	3103	N	GLN	L	17	65.434	62.607	-6.519	1.00	60.61	L	N
ÁTOMO	3104	CA	GLN	L	17	65.963	62.217	-5.216	1.00	60.86	L	C
ÁTOMO	3105	CB	GLN	L	17	65.978	63.455	-4.328	1.00	61.98	L	C
ÁTOMO	3106	CG	GLN	L	17	66.931	64.635	-4.734	1.00	63.16	L	C
ÁTOMO	3107	CD	GLN	L	17	68.419	64.089	-5.008	1.00	65.17	L	C
ÁTOMO	3108	OE1	GLN	L	17	69.148	63.567	-4.073	1.00	65.16	L	O
ÁTOMO	3109	NE2	GLN	L	17	68.787	64.108	-6.313	1.00	64.55	L	N
ÁTOMO	3110	C	GLN	L	17	65.173	61.036	-4.565	1.00	60.56	L	C
ÁTOMO	3111	O	GLN	L	17	64.239	60.498	-5.052	1.00	60.18	L	O
ÁTOMO	3112	N	ARG	L	18	65.618	60.659	-3.379	1.00	60.22	L	N
ÁTOMO	3113	CA	ARG	L	18	65.179	59.485	-2.698	1.00	60.54	L	C
ÁTOMO	3114	CB	ARG	L	18	66.356	58.697	-2.216	1.00	62.33	L	C
ÁTOMO	3115	CG	ARG	L	18	65.975	57.341	-1.777	1.00	66.77	L	C
ÁTOMO	3116	CD	ARG	L	18	67.139	56.520	-1.168	1.00	68.42	L	C
ÁTOMO	3117	NE	ARG	L	18	67.633	57.422	-0.155	1.00	71.65	L	N
ÁTOMO	3118	CZ	ARG	L	18	68.200	57.067	0.931	1.00	73.04	L	C
ÁTOMO	3119	NH1	ARG	L	18	68.376	55.781	1.210	1.00	74.42	L	N
ÁTOMO	3120	NH2	ARG	L	18	68.597	58.027	1.771	1.00	73.52	L	N
ÁTOMO	3121	C	ARG	L	18	64.423	59.827	-1.432	1.00	59.73	L	C
ÁTOMO	3122	O	ARG	L	18	64.878	60.597	-0.565	1.00	59.95	L	O
ÁTOMO	3123	N	ALA	L	19	63.285	59.225	-1.304	1.00	57.66	L	N
ÁTOMO	3124	CA	ALA	L	19	62.597	59.398	-0.115	1.00	56.97	L	C
ÁTOMO	3125	CB	ALA	L	19	61.261	59.878	-0.465	1.00	56.41	L	C
ÁTOMO	3126	C	ALA	L	19	62.473	58.120	0.563	1.00	56.01	L	C
ÁTOMO	3127	O	ALA	L	19	62.181	57.057	-0.083	1.00	55.90	L	O
ÁTOMO	3128	N	THR	L	20	62.553	58.230	1.861	1.00	54.57	L	N
ÁTOMO	3129	CA	THR	L	20	62.530	57.145	2.729	1.00	54.71	L	C
ÁTOMO	3130	CB	THR	L	20	63.976	56.984	3.320	1.00	55.31	L	C
ÁTOMO	3131	OG1	THR	L	20	64.811	56.247	2.349	1.00	58.52	L	O
ÁTOMO	3132	CG2	THR	L	20	63.997	55.982	4.450	1.00	54.15	L	C
ÁTOMO	3133	C	THR	L	20	61.488	57.301	3.965	1.00	54.23	L	C
ÁTOMO	3134	O	THR	L	20	61.495	58.250	4.662	1.00	55.01	L	O
ÁTOMO	3135	N	ILE	L	21	60.594	56.353	4.184	1.00	52.55	L	N
ÁTOMO	3136	CA	ILE	L	21	59.478	56.571	5.138	1.00	51.39	L	C
ÁTOMO	3137	CB	ILE	L	21	58.267	56.531	4.332	1.00	51.03	L	C
ÁTOMO	3138	CG2	ILE	L	21	57.101	56.522	5.229	1.00	50.72	L	C
ÁTOMO	3139	CG1	ILE	L	21	58.199	57.829	3.513	1.00	50.62	L	C
ÁTOMO	3140	CD1	ILE	L	21	56.828	57.893	2.664	1.00	51.38	L	C
ÁTOMO	3141	C	ILE	L	21	59.550	55.393	6.102	1.00	50.89	L	C
ÁTOMO	3142	O	ILE	L	21	59.654	54.245	5.588	1.00	50.75	L	O
ÁTOMO	3143	N	SER	L	22	59.500	55.604	7.412	1.00	48.72	L	N
ÁTOMO	3144	CA	SER	L	22	59.530	54.455	8.218	1.00	49.28	L	C
ÁTOMO	3145	CB	SER	L	22	60.870	54.319	8.753	1.00	50.79	L	C
ÁTOMO	3146	OG	SER	L	22	61.230	55.479	9.171	1.00	54.83	L	O
ÁTOMO	3147	C	SER	L	22	58.395	54.153	9.139	1.00	48.61	L	C
ÁTOMO	3148	O	SER	L	22	57.519	55.017	9.484	1.00	48.61	L	O
ÁTOMO	3149	N	CYS	L	23	58.280	52.943	9.516	1.00	48.09	L	N
ÁTOMO	3150	CA	CYS	L	23	57.217	52.634	10.437	1.00	49.40	L	C
ÁTOMO	3151	C	CYS	L	23	57.811	51.946	11.667	1.00	49.17	L	C
ÁTOMO	3152	O	CYS	L	23	58.420	50.962	11.568	1.00	50.55	L	O

ÁTOMO	3153	CB	CYS	L	23	56.230	51.648	9.696	1.00	47.98	L	C
ÁTOMO	3154	SG	CYS	L	23	54.576	51.056	10.342	1.00	52.95	L	S
ÁTOMO	3155	N	LYS	L	24	57.261	52.210	12.742	1.00	48.85	L	N
ÁTOMO	3156	CA	LYS	L	24	57.583	51.323	14.012	1.00	49.76	L	C
ÁTOMO	3157	CB	LYS	L	24	58.391	52.158	14.922	1.00	50.72	L	C
ÁTOMO	3158	CG	LYS	L	24	58.429	51.726	16.593	1.00	52.19	L	C
ÁTOMO	3159	CD	LYS	L	24	59.897	51.577	16.954	1.00	55.36	L	C
ÁTOMO	3160	CE	LYS	L	24	60.182	50.188	17.675	1.00	56.92	L	C
ÁTOMO	3161	NZ	LYS	L	24	61.602	49.679	17.499	1.00	58.53	L	N
ÁTOMO	3162	C	LYS	L	24	56.402	50.795	14.619	1.00	49.31	L	C
ÁTOMO	3163	O	LYS	L	24	55.435	51.454	14.980	1.00	49.16	L	O
ÁTOMO	3164	N	ALA	L	25	56.376	49.572	14.892	1.00	49.30	L	N
ÁTOMO	3165	CA	ALA	L	25	55.234	49.028	15.546	1.00	49.48	L	C
ÁTOMO	3166	CB	ALA	L	25	54.953	47.724	14.762	1.00	47.96	L	C
ÁTOMO	3167	C	ALA	L	25	55.445	48.694	17.022	1.00	50.20	L	C
ÁTOMO	3168	O	ALA	L	25	56.480	48.267	17.399	1.00	49.44	L	O
ÁTOMO	3169	N	SER	L	26	54.398	48.740	17.797	1.00	51.08	L	N
ÁTOMO	3170	CA	SER	L	26	54.567	48.567	19.242	1.00	53.13	L	C
ÁTOMO	3171	CB	SER	L	26	53.332	49.105	19.920	1.00	52.28	L	C
ÁTOMO	3172	OG	SER	L	26	52.243	48.435	19.292	1.00	52.65	L	O
ÁTOMO	3173	C	SER	L	26	54.774	47.175	19.632	1.00	55.40	L	C
ÁTOMO	3174	O	SER	L	26	55.013	46.923	20.721	1.00	55.86	L	O
ÁTOMO	3175	N	GLU	L	27	54.637	46.243	18.729	1.00	56.96	L	N
ÁTOMO	3176	CA	GLU	L	27	54.838	44.861	18.928	1.00	57.52	L	C
ÁTOMO	3177	CB	GLU	L	27	53.453	44.334	19.153	1.00	60.89	L	C
ÁTOMO	3178	CG	GLU	L	27	53.153	43.582	20.429	1.00	66.03	L	C
ÁTOMO	3179	CD	GLU	L	27	52.824	44.531	21.585	1.00	70.45	L	C
ÁTOMO	3180	OE1	GLU	L	27	51.607	44.914	21.710	1.00	73.02	L	O
ÁTOMO	3181	OE2	GLU	L	27	53.793	44.893	22.334	1.00	72.02	L	O
ÁTOMO	3182	C	GLU	L	27	55.191	44.233	17.624	1.00	56.33	L	C
ÁTOMO	3183	O	GLU	L	27	54.884	44.731	16.612	1.00	54.86	L	O
ÁTOMO	3184	N	SER	L	28	55.715	43.027	17.631	1.00	56.67	L	N
ÁTOMO	3185	CA	SER	L	28	56.161	42.382	16.351	1.00	55.27	L	C
ÁTOMO	3186	CB	SER	L	28	56.723	41.077	16.656	1.00	53.96	L	C
ÁTOMO	3187	OG	SER	L	28	57.529	40.535	15.622	1.00	56.49	L	O
ÁTOMO	3188	C	SER	L	28	55.000	42.100	15.481	1.00	54.43	L	C
ÁTOMO	3189	O	SER	L	28	54.124	41.630	15.977	1.00	54.12	L	O
ÁTOMO	3190	N	VAL	L	29	55.162	42.207	14.141	1.00	53.99	L	N
ÁTOMO	3191	CA	VAL	L	29	54.170	41.736	13.189	1.00	53.99	L	C
ÁTOMO	3192	CB	VAL	L	29	53.760	42.905	12.246	1.00	52.07	L	C
ÁTOMO	3193	CG1	VAL	L	29	53.450	44.030	13.131	1.00	50.61	L	C
ÁTOMO	3194	CG2	VAL	L	29	54.794	43.332	11.216	1.00	50.81	L	C
ÁTOMO	3195	C	VAL	L	29	54.684	40.567	12.449	1.00	55.43	L	C
ÁTOMO	3196	O	VAL	L	29	54.029	40.128	11.565	1.00	55.80	L	O
ÁTOMO	3197	N	ASP	L	30A	55.823	39.964	12.809	1.00	55.85	L	N
ÁTOMO	3198	CA	ASP	L	30A	56.207	38.724	12.097	1.00	56.24	L	C
ÁTOMO	3199	CB	ASP	L	30A	57.610	38.437	12.307	1.00	57.40	L	C
ÁTOMO	3200	CG	ASP	L	30A	58.540	39.376	11.585	1.00	60.95	L	C
ÁTOMO	3201	OD1	ASP	L	30A	59.709	39.192	11.915	1.00	63.22	L	O
ÁTOMO	3202	OD2	ASP	L	30A	58.262	40.297	10.706	1.00	60.76	L	O
ÁTOMO	3203	C	ASP	L	30A	55.441	37.453	12.548	1.00	55.44	L	C
ÁTOMO	3204	O	ASP	L	30A	55.032	37.344	13.692	1.00	54.11	L	O
ÁTOMO	3205	N	ASN	L	30B	55.172	36.561	11.637	1.00	56.01	L	N
ÁTOMO	3206	CA	ASN	L	30B	54.376	35.290	11.874	1.00	56.75	L	C
ÁTOMO	3207	CB	ASN	L	30B	53.122	35.263	11.102	1.00	57.19	L	C
ÁTOMO	3208	CG	ASN	L	30B	52.338	33.978	11.310	1.00	57.97	L	C
ÁTOMO	3209	OD1	ASN	L	30B	52.062	33.581	12.461	1.00	56.40	L	O
ÁTOMO	3210	ND2	ASN	L	30B	52.051	33.231	10.119	1.00	56.26	L	N

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ATOMO	3211	C	ASN	L	30B	55.197	34.018	11.810	1.00	57.63	L	C
ATOMO	3212	O	ASN	L	30B	55.549	33.299	12.907	1.00	59.38	L	O
ATOMO	3213	N	TYR	L	30C	55.972	33.851	10.826	1.00	58.12	L	N
ATOMO	3214	CA	TYR	L	30C	56.966	32.728	11.255	1.00	57.56	L	C
ATOMO	3215	CB	TYR	L	30C	56.393	31.318	10.871	1.00	59.59	L	C
ATOMO	3216	CG	TYR	L	30C	55.804	30.433	11.997	1.00	62.38	L	C
ATOMO	3217	CD1	TYR	L	30C	56.575	29.521	12.651	1.00	63.98	L	C
ATOMO	3218	CE1	TYR	L	30C	56.062	28.868	13.663	1.00	65.37	L	C
ATOMO	3219	CD2	TYR	L	30C	54.516	30.530	12.335	1.00	62.73	L	C
ATOMO	3220	CE2	TYR	L	30C	53.994	29.934	13.359	1.00	65.31	L	C
ATOMO	3221	CZ	TYR	L	30C	54.751	29.057	14.043	1.00	66.28	L	C
ATOMO	3222	OH	TYR	L	30C	54.177	28.331	15.161	1.00	67.53	L	O
ATOMO	3223	C	TYR	L	30C	58.014	32.886	10.322	1.00	56.78	L	C
ATOMO	3224	O	TYR	L	30C	57.979	32.197	9.221	1.00	56.52	L	O
ATOMO	3225	N	GLY	L	30D	58.707	33.978	10.516	1.00	55.18	L	N
ATOMO	3226	CA	GLY	L	30D	59.595	34.468	9.451	1.00	53.84	L	C
ATOMO	3227	C	GLY	L	30D	58.974	35.386	8.429	1.00	53.10	L	C
ATOMO	3228	O	GLY	L	30D	59.696	35.905	7.594	1.00	52.98	L	O
ATOMO	3229	N	LYS	L	30E	57.655	35.574	8.425	1.00	52.44	L	N
ATOMO	3230	CA	LYS	L	30E	57.221	36.521	7.395	1.00	51.96	L	C
ATOMO	3231	CB	LYS	L	30E	56.282	35.893	6.222	1.00	53.54	L	C
ATOMO	3232	CG	LYS	L	30E	56.499	34.508	5.741	1.00	52.86	L	C
ATOMO	3233	CD	LYS	L	30E	55.680	33.333	6.760	1.00	52.44	L	C
ATOMO	3234	CE	LYS	L	30E	56.238	32.000	6.799	1.00	53.21	L	C
ATOMO	3235	NZ	LYS	L	30E	55.917	30.965	7.780	1.00	52.68	L	N
ATOMO	3236	C	LYS	L	30E	56.619	37.756	8.105	1.00	50.72	L	C
ATOMO	3237	O	LYS	L	30E	56.010	37.576	9.096	1.00	51.31	L	O
ATOMO	3238	N	SER	L	31	56.795	38.955	7.602	1.00	47.57	L	N
ATOMO	3239	CA	SER	L	31	56.368	40.158	8.308	1.00	46.85	L	C
ATOMO	3240	CB	SER	L	31	57.408	41.265	8.194	1.00	47.13	L	C
ATOMO	3241	OG	SER	L	31	58.776	40.786	8.489	1.00	49.94	L	O
ATOMO	3242	C	SER	L	31	55.073	40.596	7.675	1.00	46.30	L	C
ATOMO	3243	O	SER	L	31	55.007	40.931	6.496	1.00	47.15	L	O
ATOMO	3244	N	LEU	L	32	54.082	40.732	8.542	1.00	45.54	L	N
ATOMO	3245	CA	LEU	L	32	52.707	40.890	8.042	1.00	44.95	L	C
ATOMO	3246	CB	LEU	L	32	51.658	40.126	8.959	1.00	43.45	L	C
ATOMO	3247	CG	LEU	L	32	51.951	38.635	9.078	1.00	42.44	L	C
ATOMO	3248	CD1	LEU	L	32	50.943	37.801	9.742	1.00	40.43	L	C
ATOMO	3249	CD2	LEU	L	32	52.063	38.084	7.588	1.00	40.35	L	C
ATOMO	3250	C	LEU	L	32	52.494	42.421	8.128	1.00	45.90	L	C
ATOMO	3251	O	LEU	L	32	51.620	42.800	8.861	1.00	45.96	L	O
ATOMO	3252	N	MET	L	33	53.135	43.182	7.215	1.00	44.68	L	N
ATOMO	3253	CA	MET	L	33	53.114	44.629	7.195	1.00	46.62	L	C
ATOMO	3254	CB	MET	L	33	54.453	45.212	7.636	1.00	48.40	L	C
ATOMO	3255	CG	MET	L	33	54.706	46.723	7.347	1.00	51.53	L	C
ATOMO	3256	SD	MET	L	33	53.565	47.476	8.816	1.00	57.60	L	S
ATOMO	3257	CE	MET	L	33	54.234	47.188	10.430	1.00	55.27	L	C
ATOMO	3258	C	MET	L	33	52.978	44.924	5.655	1.00	45.90	L	C
ATOMO	3259	O	MET	L	33	53.599	44.269	4.780	1.00	45.80	L	O
ATOMO	3260	N	HIS	L	34	52.113	45.875	5.332	1.00	43.80	L	N
ATOMO	3261	CA	HIS	L	34	51.930	46.321	3.910	1.00	43.27	L	C
ATOMO	3262	CB	HIS	L	34	50.514	45.888	3.633	1.00	42.70	L	C
ATOMO	3263	CG	HIS	L	34	50.190	44.505	4.049	1.00	41.65	L	C
ATOMO	3264	CD2	HIS	L	34	49.217	44.047	4.864	1.00	44.21	L	C
ATOMO	3265	ND1	HIS	L	34	50.838	43.400	3.574	1.00	42.76	L	N
ATOMO	3266	CE1	HIS	L	34	50.297	42.330	4.140	1.00	43.50	L	C
ATOMO	3267	NE2	HIS	L	34	49.304	42.711	4.907	1.00	42.79	L	N
ATOMO	3268	C	HIS	L	34	51.890	47.798	3.859	1.00	42.81	L	C
ATOMO	3269	O	HIS	L	34	51.722	48.488	4.923	1.00	44.23	L	O
ATOMO	3270	N	TRP	L	35	52.117	48.370	2.676	1.00	41.84	L	N
ATOMO	3271	CA	TRP	L	35	52.202	49.815	2.481	1.00	41.57	L	C
ATOMO	3272	CB	TRP	L	35	53.559	50.142	2.025	1.00	40.46	L	C

ÁTOMO	3273	CG	TRP	L	35	54.525	50.108	3.172	1.00	41.35	L	C
ÁTOMO	3274	CD2	TRP	L	35	54.944	51.224	3.971	1.00	41.73	L	C
ÁTOMO	3275	CE2	TRP	L	35	56.052	50.760	4.800	1.00	41.68	L	C
ÁTOMO	3276	CE3	TRP	L	35	54.491	52.502	4.165	1.00	40.10	L	C
ÁTOMO	3277	CD1	TRP	L	35	55.573	49.170	3.306	1.00	41.34	L	C
ÁTOMO	3278	NE1	TRP	L	35	56.439	49.548	4.300	1.00	41.83	L	N
ÁTOMO	3279	CZ2	TRP	L	35	56.704	51.592	5.736	1.00	41.45	L	C
ÁTOMO	3280	CZ3	TRP	L	35	55.082	53.332	5.309	1.00	41.11	L	C
ÁTOMO	3281	CH2	TRP	L	35	56.169	52.825	6.002	1.00	41.44	L	C
ÁTOMO	3282	C	TRP	L	35	51.210	50.279	1.457	1.00	42.23	L	C
ÁTOMO	3283	O	TRP	L	35	51.012	49.567	0.372	1.00	43.53	L	O
ÁTOMO	3284	N	TYR	L	36	50.489	51.384	1.725	1.00	40.06	L	N
ÁTOMO	3285	CA	TYR	L	36	49.548	51.881	0.769	1.00	39.58	L	C
ÁTOMO	3286	CB	TYR	L	36	48.068	51.823	1.298	1.00	38.10	L	C
ÁTOMO	3287	CG	TYR	L	36	47.633	50.524	1.872	1.00	39.65	L	C
ÁTOMO	3288	CD1	TYR	L	36	48.018	50.099	3.040	1.00	37.47	L	C
ÁTOMO	3289	CE1	TYR	L	36	47.728	48.721	3.438	1.00	37.52	L	C
ÁTOMO	3290	CD2	TYR	L	36	47.005	49.647	1.020	1.00	36.92	L	C
ÁTOMO	3291	CE2	TYR	L	36	46.662	48.284	1.426	1.00	36.87	L	C
ÁTOMO	3292	CZ	TYR	L	36	47.070	47.850	2.651	1.00	37.75	L	C
ÁTOMO	3293	OH	TYR	L	36	46.782	46.544	3.043	1.00	39.29	L	O
ÁTOMO	3294	C	TYR	L	36	49.883	53.400	0.509	1.00	40.31	L	C
ÁTOMO	3295	O	TYR	L	36	50.509	54.086	1.359	1.00	38.66	L	O
ÁTOMO	3296	N	GLN	L	37	49.535	.53.818	-0.725	1.00	39.96	L	N
ÁTOMO	3297	CA	GLN	L	37	49.704	55.158	-1.255	1.00	40.83	L	C
ÁTOMO	3298	CB	GLN	L	37	50.186	55.133	-2.658	1.00	39.79	L	C
ÁTOMO	3299	CG	GLN	L	37	50.494	56.431	-3.274	1.00	42.07	L	C
ÁTOMO	3300	CD	GLN	L	37	51.024	56.484	-4.754	1.00	44.50	L	C
ÁTOMO	3301	OE1	GLN	L	37	50.377	56.066	-5.645	1.00	47.36	L	O
ÁTOMO	3302	NE2	GLN	L	37	52.180	57.013	-4.930	1.00	43.45	L	N
ÁTOMO	3303	C	GLN	L	37	48.324	55.765	-1.490	1.00	40.88	L	C
ÁTOMO	3304	O	GLN	L	37	47.497	55.064	-2.111	1.00	39.82	L	O
ÁTOMO	3305	N	GLN	L	38	48.031	56.962	-0.927	1.00	41.63	L	N
ÁTOMO	3306	CA	GLN	L	38	46.767	57.644	-1.200	1.00	42.50	L	C
ÁTOMO	3307	CB	GLN	L	38	45.989	57.803	0.033	1.00	42.26	L	C
ÁTOMO	3308	CG	GLN	L	38	44.570	58.433	-0.190	1.00	41.96	L	C
ÁTOMO	3309	CD	GLN	L	38	43.661	58.451	1.068	1.00	42.42	L	C
ÁTOMO	3310	OE1	GLN	L	38	44.153	58.584	2.191	1.00	40.92	L	O
ÁTOMO	3311	NE2	GLN	L	38	42.275	58.205	0.809	1.00	41.03	L	N
ÁTOMO	3312	C	GLN	L	38	47.132	59.057	-1.704	1.00	43.48	L	C
ÁTOMO	3313	O	GLN	L	38	47.433	59.962	-0.961	1.00	43.75	L	O
ÁTOMO	3314	N	LYS	L	39	47.003	59.229	-2.988	1.00	45.16	L	N
ÁTOMO	3315	CA	LYS	L	39	47.000	60.502	-3.632	1.00	46.88	L	C
ÁTOMO	3316	CB	LYS	L	39	47.079	60.354	-5.121	1.00	48.09	L	C
ÁTOMO	3317	CG	LYS	L	39	48.104	59.370	-5.531	1.00	50.07	L	C
ÁTOMO	3318	CD	LYS	L	39	48.627	59.508	-6.952	1.00	53.52	L	C
ÁTOMO	3319	CE	LYS	L	39	48.304	58.426	-7.919	1.00	56.25	L	C
ÁTOMO	3320	NZ	LYS	L	39	49.534	58.012	-8.719	1.00	56.24	L	N
ÁTOMO	3321	C	LYS	L	39	45.820	61.324	-3.269	1.00	47.86	L	C
ÁTOMO	3322	O	LYS	L	39	44.811	60.782	-2.807	1.00	47.17	L	O
ÁTOMO	3323	N	PRO	L	40	45.967	62.651	-3.375	1.00	48.23	L	N
ÁTOMO	3324	CD	PRO	L	40	47.119	63.387	-3.934	1.00	48.78	L	C
ÁTOMO	3325	CA	PRO	L	40	44.892	63.548	-3.036	1.00	48.38	L	C
ÁTOMO	3326	CB	PRO	L	40	45.487	64.858	-3.472	1.00	49.68	L	C
ÁTOMO	3327	CG	PRO	L	40	46.955	64.694	-3.202	1.00	50.16	L	C
ÁTOMO	3328	C	PRO	L	40	43.592	63.400	-3.829	1.00	48.85	L	C
ÁTOMO	3329	O	PRO	L	40	43.605	63.329	-5.042	1.00	48.79	L	O
ÁTOMO	3330	N	GLY	L	41	42.472	63.239	-3.114	1.00	49.59	L	N

ÁTOMO	3331	CA	GLY	L	41	41.156	62.982	-3.786	1.00	50.02	L	C
ÁTOMO	3332	C	GLY	L	41	40.830	61.537	-4.182	1.00	50.71	L	C
ÁTOMO	3333	O	GLY	L	41	39.765	61.195	-4.532	1.00	50.67	L	O
ÁTOMO	3334	N	GLN	L	42	41.824	60.716	-4.258	1.00	50.87	L	N
ÁTOMO	3335	CA	GLN	L	42	41.796	59.300	-4.507	1.00	51.75	L	C
ÁTOMO	3336	CB	GLN	L	42	43.039	59.072	-5.281	1.00	52.91	L	C
ÁTOMO	3337	CG	GLN	L	42	42.948	59.658	-6.822	1.00	55.22	L	C
ÁTOMO	3338	CD	GLN	L	42	44.150	59.256	-7.607	1.00	56.68	L	C
ÁTOMO	3339	OE1	GLN	L	42	44.755	60.170	-8.261	1.00	58.21	L	O
ÁTOMO	3340	NE2	GLN	L	42	44.623	57.918	-7.519	1.00	57.44	L	N
ÁTOMO	3341	C	GLN	L	42	41.764	58.317	-3.141	1.00	50.97	L	C
ÁTOMO	3342	O	GLN	L	42	41.808	58.707	-2.045	1.00	51.08	L	O
ÁTOMO	3343	N	SER	L	43	41.523	57.062	-3.326	1.00	49.35	L	N
ÁTOMO	3344	CA	SER	L	43	41.337	56.114	-2.324	1.00	48.11	L	C
ÁTOMO	3345	CB	SER	L	43	40.209	55.257	-2.712	1.00	50.00	L	C
ÁTOMO	3346	OG	SER	L	43	40.679	54.393	-3.771	1.00	52.62	L	O
ÁTOMO	3347	C	SER	L	43	42.800	55.404	-2.199	1.00	46.70	L	C
ÁTOMO	3348	O	SER	L	43	43.674	55.641	-3.047	1.00	45.07	L	O
ÁTOMO	3349	N	PRO	L	44	43.118	54.829	-1.039	1.00	46.29	L	N
ÁTOMO	3350	CD	PRO	L	44	42.200	54.695	0.070	1.00	47.19	L	C
ÁTOMO	3351	CA	PRO	L	44	44.345	54.129	-0.843	1.00	46.37	L	C
ÁTOMO	3352	CB	PRO	L	44	44.180	53.413	0.387	1.00	46.52	L	C
ÁTOMO	3353	CG	PRO	L	44	43.084	54.301	1.176	1.00	47.07	L	C
ÁTOMO	3354	C	PRO	L	44	44.586	53.048	-1.945	1.00	46.83	L	C
ÁTOMO	3355	O	PRO	L	44	43.649	52.520	-2.368	1.00	47.16	L	O
ÁTOMO	3356	N	LYS	L	45	45.807	52.795	-2.306	1.00	46.19	L	N
ÁTOMO	3357	CA	LYS	L	45	46.236	51.816	-3.267	1.00	47.13	L	C
ÁTOMO	3358	CB	LYS	L	45	46.560	52.566	-4.574	1.00	46.21	L	C
ÁTOMO	3359	CG	LYS	L	45	47.534	51.931	-5.593	1.00	49.79	L	C
ÁTOMO	3360	CD	LYS	L	45	47.328	52.729	-7.044	1.00	53.61	L	C
ÁTOMO	3361	CE	LYS	L	45	48.384	52.372	-8.178	1.00	55.08	L	C
ÁTOMO	3362	NZ	LYS	L	45	48.007	51.167	-9.072	1.00	59.14	L	N
ÁTOMO	3363	C	LYS	L	45	47.439	51.035	-2.780	1.00	46.15	L	C
ÁTOMO	3364	O	LYS	L	45	48.367	51.601	-2.208	1.00	47.27	L	O
ÁTOMO	3365	N	LEU	L	46	47.439	49.780	-3.087	1.00	45.46	L	N
ÁTOMO	3366	CA	LEU	L	46	48.420	48.871	-2.462	1.00	44.63	L	C
ÁTOMO	3367	CB	LEU	L	46	47.967	47.354	-2.414	1.00	43.94	L	C
ÁTOMO	3368	CG	LEU	L	46	49.091	46.349	-1.995	1.00	44.18	L	C
ÁTOMO	3369	CD1	LEU	L	46	49.245	46.386	-0.548	1.00	41.71	L	C
ÁTOMO	3370	CD2	LEU	L	46	48.519	44.936	-2.299	1.00	43.61	L	C
ÁTOMO	3371	C	LEU	L	46	49.719	48.986	-3.187	1.00	44.28	L	C
ÁTOMO	3372	O	LEU	L	46	49.784	48.755	-4.415	1.00	44.85	L	O
ÁTOMO	3373	N	LEU	L	47	50.822	49.188	-2.491	1.00	43.91	L	N
ÁTOMO	3374	CA	LEU	L	47	52.117	49.289	-3.171	1.00	44.11	L	C
ÁTOMO	3375	CB	LEU	L	47	52.822	50.500	-2.533	1.00	44.54	L	C
ÁTOMO	3376	CG	LEU	L	47	52.343	51.886	-2.865	1.00	45.79	L	C
ÁTOMO	3377	CD1	LEU	L	47	53.215	52.805	-1.949	1.00	43.54	L	C
ÁTOMO	3378	CD2	LEU	L	47	52.645	52.217	-4.259	1.00	44.99	L	C
ÁTOMO	3379	C	LEU	L	47	52.920	48.061	-2.889	1.00	43.22	L	C
ÁTOMO	3380	O	LEU	L	47	53.660	47.582	-3.804	1.00	43.02	L	O
ÁTOMO	3381	N	ILE	L	48	53.024	47.708	-1.562	1.00	42.64	L	N
ÁTOMO	3382	CA	ILE	L	48	53.893	46.659	-1.077	1.00	44.20	L	C
ÁTOMO	3383	CB	ILE	L	48	55.148	47.296	-0.472	1.00	44.06	L	C
ÁTOMO	3384	CG2	ILE	L	48	56.083	46.170	-0.035	1.00	42.39	L	C
ÁTOMO	3385	CG1	ILE	L	48	55.895	48.103	-1.540	1.00	43.43	L	C
ÁTOMO	3386	CD1	ILE	L	48	57.123	47.375	-2.060	1.00	45.86	L	C
ÁTOMO	3387	C	ILE	L	48	53.169	45.824	-0.013	1.00	44.86	L	C
ÁTOMO	3388	O	ILE	L	48	52.713	46.305	0.993	1.00	44.44	L	O
ÁTOMO	3389	N	TYR	L	49	53.069	44.523	-0.336	1.00	43.51	L	N

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ÁTOMO	3390	CA	TYR	L	49	52.544	43.575	0.646	1.00	44.25	L	C
ÁTOMO	3391	CB	TYR	L	49	51.447	42.725	-0.007	1.00	44.43	L	C
ÁTOMO	3392	CG	TYR		49	51.998	41.866	-1.095	1.00	47.66	L	C
ÁTOMO	3393	CD1	TYR		49	52.302	40.531	-0.831	1.00	48.71	L	C
ÁTOMO	3394	CE1	TYR	L	49	52.574	39.656	-1.873	1.00	48.62	L	C
ÁTOMO	3395	CD2	TYR	L	49	51.996	42.319	-2.415	1.00	46.74	L	C
ÁTOMO	3396	CE2	TYR	L	49	52.278	41.447	-3.456	1.00	47.16	L	C
ÁTOMO	3397	CZ	TYR	L	49	52.567	40.122	-3.189	1.00	47.68	L	C
ÁTOMO	3398	OH	TYR	L	49	52.841	39.246	-4.221	1.00	49.06	L	O
ÁTOMO	3399	C	TYR	L	49	53.626	42.684	1.269	1.00	44.97	L	C
ÁTOMO	3400	O	TYR	L	49	54.695	42.452	0.719	1.00	44.07	L	O
ÁTOMO	3401	N	ARG		50	53.318	42.219	2.485	1.00	44.80	L	N
ÁTOMO	3402	CA	ARG		50	54.318	41.356	3.209	1.00	46.52	L	C
ÁTOMO	3403	CB	ARG	L	50	54.263	39.963	2.609	1.00	47.86	L	C
ÁTOMO	3404	CG	ARG	L	50	54.273	38.890	3.685	1.00	49.22	L	C
ÁTOMO	3405	CD	ARG	L	50	54.342	37.481	3.085	1.00	49.53	L	C
ÁTOMO	3406	NE	ARG	L	50	53.536	37.403	1.865	1.00	51.67	L	N
ÁTOMO	3407	CZ	ARG	L	50	53.801	36.394	1.017	1.00	52.68	L	C
ÁTOMO	3408	NH1	ARG	L	50	54.765	35.533	1.290	1.00	53.20	L	N
ÁTOMO	3409	NH2	ARG	L	50	53.036	36.226	-0.066	1.00	52.22	L	N
ÁTOMO	3410	C	ARG	L	50	55.780	41.844	3.283	1.00	46.28	L	C
ÁTOMO	3411	O	ARG	L	50	56.760	41.090	3.136	1.00	48.61	L	O
ÁTOMO	3412	N	ALA	L	51	55.831	43.166	3.535	1.00	45.86	L	N
ÁTOMO	3413	CA	ALA	L	51	56.996	44.060	3.797	1.00	44.82	L	C
ÁTOMO	3414	CB	ALA	L	51	57.806	43.478	4.954	1.00	45.10	L	C
ÁTOMO	3415	C	ALA	L	51	58.054	44.322	2.684	1.00	46.14	L	C
ÁTOMO	3416	O	ALA	L	51	58.836	45.259	2.765	1.00	47.35	L	O
ÁTOMO	3417	N	SER	L	52	58.146	43.438	1.650	1.00	44.64	L	N
ÁTOMO	3418	CA	SER	L	52	59.178	43.624	0.583	1.00	45.96	L	C
ÁTOMO	3419	CB	SER	L	52	60.482	42.894	0.955	1.00	42.75	L	C
ÁTOMO	3420	OG	SER	L	52	60.249	41.539	1.329	1.00	43.62	L	O
ÁTOMO	3421	C	SER	L	52	58.718	43.186	-0.849	1.00	47.19	L	C
ÁTOMO	3422	O	SER	L	52	59.467	43.297	-1.810	1.00	48.38	L	O
ÁTOMO	3423	N	ASN	L	53	57.403	42.790	-0.932	1.00	49.20	L	N
ÁTOMO	3424	CA	ASN	L	53	56.750	42.272	-2.150	1.00	51.26	L	C
ÁTOMO	3425	CB	ASN	L	53	55.792	41.115	-1.787	1.00	52.80	L	C
ÁTOMO	3426	CG	ASN	L	53	56.547	39.817	-1.926	1.00	55.58	L	C
ÁTOMO	3427	OD1	ASN	L	53	57.180	39.538	-2.944	1.00	59.69	L	O
ÁTOMO	3428	ND2	ASN	L	53	56.499	39.018	-0.851	1.00	55.79	L	N
ÁTOMO	3429	C	ASN	L	53	55.998	43.325	-2.976	1.00	51.90	L	C
ÁTOMO	3430	O	ASN	L	53	54.932	43.818	-2.633	1.00	53.16	L	O
ÁTOMO	3431	N	LEU	L	54	56.626	43.651	-4.141	1.00	52.01	L	N
ÁTOMO	3432	CA	LEU	L	54	56.044	44.648	-5.060	1.00	53.38	L	C
ÁTOMO	3433	CB	LEU	L	54	57.080	44.978	-6.148	1.00	54.15	L	C
ÁTOMO	3434	CG	LEU	L	54	56.676	46.173	-7.022	1.00	54.46	L	C
ÁTOMO	3435	CD1	LEU	L	54	56.434	47.437	-6.202	1.00	55.09	L	C
ÁTOMO	3436	CD2	LEU	L	54	57.738	46.540	-8.068	1.00	56.24	L	C
ÁTOMO	3437	C	LEU	L	54	54.749	44.151	-5.720	1.00	53.72	L	C
ÁTOMO	3438	O	LEU	L	54	54.701	43.107	-6.358	1.00	54.45	L	O
ÁTOMO	3439	N	GLU	L	55	53.626	44.859	-5.601	1.00	53.51	L	N
ÁTOMO	3440	CA	GLU	L	55	52.368	44.478	-6.116	1.00	55.11	L	C
ÁTOMO	3441	CB	GLU	L	55	51.294	45.404	-5.592	1.00	55.21	L	C
ÁTOMO	3442	CG	GLU	L	55	49.971	45.205	-6.300	1.00	55.64	L	C
ÁTOMO	3443	CD	GLU	L	55	49.169	43.969	-5.835	1.00	57.19	L	C
ÁTOMO	3444	OE1	GLU	L	55	49.769	43.078	-5.176	1.00	57.60	L	O
ÁTOMO	3445	OE2	GLU	L	55	47.885	43.884	-6.132	1.00	56.57	L	O
ÁTOMO	3446	C	GLU	L	55	52.360	44.662	-7.650	1.00	55.90	L	C
ÁTOMO	3447	O	GLU	L	55	52.870	45.532	-8.219	1.00	55.81	L	O

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ÁTOMO	3448	N	SER	L	56	51.750	43.781	-8.303	1.00	56.80	L	N
ÁTOMO	3449	CA	SER	L	56	51.755	43.837	-9.703	1.00	58.42	L	C
ÁTOMO	3450	CB	SER	L	56	50.933	42.610	-10.158	1.00	58.40	L	C
ÁTOMO	3451	OG	SER	L	56	50.926	42.846	-11.533	1.00	62.54	L	O
ÁTOMO	3452	C	SER	L	56	51.163	45.190	-10.225	1.00	57.30	L	C
ÁTOMO	3453	O	SER	L	56	50.186	45.761	-9.731	1.00	57.56	L	O
ÁTOMO	3454	N	GLY	L	57	51.874	45.796	-11.127	1.00	57.37	L	N
ÁTOMO	3455	CA	GLY	L	57	51.424	47.049	-11.688	1.00	56.96	L	C
ÁTOMO	3456	C	GLY	L	57	52.204	48.193	-11.119	1.00	56.79	L	C
ÁTOMO	3457	O	GLY	L	57	52.157	49.231	-11.753	1.00	58.79	L	O
ÁTOMO	3458	N	ILE	L	58	52.895	48.026	-9.960	1.00	55.41	L	N
ÁTOMO	3459	CA	ILE	L	58	53.508	49.177	-9.257	1.00	53.96	L	C
ÁTOMO	3460	CB	ILE	L	58	53.534	48.875	-7.833	1.00	51.43	L	C
ÁTOMO	3461	CG2	ILE	L	58	54.205	49.855	-7.156	1.00	50.04	L	C
ÁTOMO	3462	CG1	ILE	L	58	52.121	48.769	-7.308	1.00	51.25	L	C
ÁTOMO	3463	CD1	ILE	L	58	51.212	50.082	-7.601	1.00	50.72	L	C
ÁTOMO	3464	C	ILE	L	58	54.878	49.294	-9.751	1.00	54.15	L	C
ÁTOMO	3465	O	ILE	L	58	55.493	48.283	-9.888	1.00	55.21	L	O
ÁTOMO	3466	N	PRO	L	59	55.399	50.473	-10.051	1.00	53.53	L	N
ÁTOMO	3467	CD	PRO	L	59	54.706	51.752	-10.212	1.00	52.32	L	C
ÁTOMO	3468	CA	PRO	L	59	56.800	50.603	-10.428	1.00	53.60	L	C
ÁTOMO	3469	CB	PRO	L	59	56.943	52.058	-10.742	1.00	51.95	L	C
ÁTOMO	3470	CG	PRO	L	59	55.586	52.664	-10.254	1.00	51.28	L	C
ÁTOMO	3471	C	PRO	L	59	57.867	50.269	-9.460	1.00	54.47	L	C
ÁTOMO	3472	O	PRO	L	59	57.709	50.423	-8.128	1.00	55.96	L	O
ÁTOMO	3473	N	ALA	L	60	58.970	49.767	-10.063	1.00	54.31	L	N
ÁTOMO	3474	CA	ALA	L	60	60.165	49.330	-9.309	1.00	54.02	L	C
ÁTOMO	3475	CB	ALA	L	60	61.266	48.623	-10.235	1.00	53.41	L	C
ÁTOMO	3476	C	ALA	L	60	60.854	50.494	-8.512	1.00	53.88	L	C
ÁTOMO	3477	O	ALA	L	60	61.789	50.225	-7.714	1.00	53.56	L	O
ÁTOMO	3478	N	ARG	L	61	60.503	51.752	-8.815	1.00	53.46	L	N
ÁTOMO	3479	CA	ARG	L	61	60.979	52.803	-7.943	1.00	52.97	L	C
ÁTOMO	3480	CB	ARG	L	61	60.491	54.163	-8.394	1.00	54.39	L	C
ÁTOMO	3481	CG	ARG	L	61	60.284	54.239	-9.802	1.00	55.57	L	C
ÁTOMO	3482	CD	ARG	L	61	59.850	55.654	-10.234	1.00	58.75	L	C
ÁTOMO	3483	NE	ARG	L	61	58.422	55.955	-10.333	1.00	60.43	L	N
ÁTOMO	3484	CZ	ARG	L	61	57.733	56.569	-9.387	1.00	61.42	L	C
ÁTOMO	3485	NH1	ARG	L	61	58.344	56.916	-8.329	1.00	61.49	L	N
ÁTOMO	3486	NH2	ARG	L	61	56.475	56.905	-9.543	1.00	60.78	L	N
ÁTOMO	3487	C	ARG	L	61	60.565	52.561	-6.456	1.00	51.50	L	C
ÁTOMO	3488	O	ARG	L	61	61.109	53.120	-5.595	1.00	51.57	L	O
ÁTOMO	3489	N	PHE	L	62	59.529	51.811	-6.212	1.00	50.00	L	N
ÁTOMO	3490	CA	PHE	L	62	59.032	51.632	-4.935	1.00	49.93	L	C
ÁTOMO	3491	CB	PHE	L	62	57.467	51.469	-4.961	1.00	47.93	L	C
ÁTOMO	3492	CG	PHE	L	62	56.737	52.754	-5.178	1.00	48.92	L	C
ÁTOMO	3493	CD1	PHE	L	62	56.522	53.651	-4.150	1.00	48.20	L	C
ÁTOMO	3494	CD2	PHE	L	62	56.365	53.122	-6.376	1.00	48.67	L	C
ÁTOMO	3495	CE1	PHE	L	62	55.873	54.853	-4.358	1.00	48.82	L	C
ÁTOMO	3496	CE2	PHE	L	62	55.859	54.350	-6.619	1.00	49.21	L	C
ÁTOMO	3497	CZ	PHE	L	62	55.528	55.210	-5.657	1.00	47.07	L	C
ÁTOMO	3498	C	PHE	L	62	59.627	50.305	-4.485	1.00	50.05	L	C
ÁTOMO	3499	O	PHE	L	62	59.369	49.281	-5.181	1.00	51.12	L	O
ÁTOMO	3500	N	SER	L	63	60.115	50.244	-3.287	1.00	48.79	L	N
ÁTOMO	3501	CA	SER	L	63	60.627	49.031	-2.616	1.00	49.33	L	C
ÁTOMO	3502	CB	SER	L	63	62.221	48.902	-2.650	1.00	48.44	L	C
ÁTOMO	3503	OG	SER	L	63	62.867	50.204	-2.559	1.00	52.96	L	O
ÁTOMO	3504	C	SER	L	63	60.387	49.146	-1.139	1.00	49.52	L	C
ÁTOMO	3505	O	SER	L	63	60.260	50.204	-0.588	1.00	50.14	L	O
ÁTOMO	3506	N	GLY	L	64	60.505	48.022	-0.459	1.00	49.55	L	N
ÁTOMO	3507	CA	GLY	L	64	60.236	47.981	0.966	1.00	49.92	L	C

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ATOMO	3508	C	GLY	L	64	61.159	46.980	1.657	1.00	50.31	L	C
ATOMO	3509	O	GLY	L	64	61.708	46.063	1.050	1.00	51.49	L	O
ATOMO	3510	N	SER	L	65	61.365	47.192	2.967	1.00	50.12	L	N
ATOMO	3511	CA	SER	L	65	62.186	46.237	3.707	1.00	51.65	L	C
ATOMO	3512	CB	SER	L	65	63.669	46.486	3.393	1.00	51.79	L	C
ATOMO	3513	OG	SER	L	65	63.903	47.880	3.197	1.00	54.65	L	O
ATOMO	3514	C	SER	L	65	61.942	46.325	5.240	1.00	52.23	L	C
ATOMO	3515	O	SER	L	65	61.163	47.105	5.722	1.00	51.50	L	O
ATOMO	3516	N	GLY	L	66	62.640	45.355	5.896	1.00	53.83	L	N
ATOMO	3517	CA	GLY	L	66	62.944	45.167	7.285	1.00	54.65	L	C
ATOMO	3518	C	GLY	L	66	62.097	44.044	7.895	1.00	55.40	L	C
ATOMO	3519	O	GLY	L	66	61.401	43.294	7.225	1.00	56.17	L	O
ATOMO	3520	N	SER	L	67	62.236	43.937	9.219	1.00	56.74	L	N
ATOMO	3521	CA	SER	L	67	61.469	42.901	9.898	1.00	57.00	L	C
ATOMO	3522	CB	SER	L	67	62.289	41.610	9.899	1.00	56.12	L	C
ATOMO	3523	OG	SER	L	67	63.440	41.777	10.728	1.00	52.42	L	O
ATOMO	3524	C	SER	L	67	61.112	43.301	11.330	1.00	58.80	L	C
ATOMO	3525	O	SER	L	67	61.566	44.299	11.869	1.00	58.14	L	O
ATOMO	3526	N	ARG	L	68	60.226	42.492	11.938	1.00	60.14	L	N
ATOMO	3527	CA	ARG	L	68	59.752	42.799	13.284	1.00	62.85	L	C
ATOMO	3528	CB	ARG	L	68	60.943	42.830	14.243	1.00	66.36	L	C
ATOMO	3529	CG	ARG	L	68	60.579	42.311	15.635	1.00	71.20	L	C
ATOMO	3530	CD	ARG	L	68	61.290	40.988	15.902	1.00	75.53	L	C
ATOMO	3531	NE	ARG	L	68	62.250	40.757	14.819	1.00	79.27	L	N
ATOMO	3532	CZ	ARG	L	68	62.796	39.537	14.706	1.00	81.84	L	C
ATOMO	3533	NH1	ARG	L	68	62.477	38.584	15.563	1.00	81.92	L	N
ATOMO	3534	NH2	ARG	L	68	63.640	39.287	13.702	1.00	82.11	L	N
ATOMO	3535	C	ARG	L	68	59.054	44.151	13.354	1.00	62.53	L	C
ATOMO	3536	O	ARG	L	68	58.092	44.438	12.659	1.00	63.47	L	O
ATOMO	3537	N	THR	L	69	59.568	44.980	14.275	1.00	61.15	L	N
ATOMO	3538	CA	THR	L	69	58.935	46.256	14.555	1.00	58.99	L	C
ATOMO	3539	CB	THR	L	69	59.128	46.541	16.044	1.00	60.19	L	C
ATOMO	3540	OG1	THR	L	69	60.474	46.226	16.405	1.00	62.69	L	O
ATOMO	3541	CG2	THR	L	69	58.185	45.666	16.872	1.00	59.57	L	C
ATOMO	3542	C	THR	L	69	59.549	47.398	13.734	1.00	56.96	L	C
ATOMO	3543	O	THR	L	69	59.270	48.573	13.949	1.00	58.32	L	O
ATOMO	3544	N	ASP	L	70	60.444	47.031	12.793	1.00	54.09	L	N
ATOMO	3545	CA	ASP	L	70	61.095	48.083	12.018	1.00	52.20	L	C
ATOMO	3546	CB	ASP	L	70	62.565	48.163	12.433	1.00	55.60	L	C
ATOMO	3547	CG	ASP	L	70	62.648	48.807	13.817	1.00	58.39	L	C
ATOMO	3548	OD1	ASP	L	70	62.032	49.860	13.992	1.00	59.55	L	O
ATOMO	3549	OD2	ASP	L	70	63.304	48.254	14.694	1.00	61.45	L	O
ATOMO	3550	C	ASP	L	70	60.963	47.857	10.511	1.00	50.32	L	C
ATOMO	3551	O	ASP	L	70	61.438	46.878	9.956	1.00	50.21	L	O
ATOMO	3552	N	PHE	L	71	60.236	48.803	9.855	1.00	47.22	L	N
ATOMO	3553	CA	PHE	L	71	60.062	48.762	8.391	1.00	45.44	L	C
ATOMO	3554	CB	PHE	L	71	58.633	48.313	8.064	1.00	43.23	L	C
ATOMO	3555	CG	PHE	L	71	58.375	46.958	8.652	1.00	43.34	L	C
ATOMO	3556	CD1	PHE	L	71	57.803	46.861	9.913	1.00	41.62	L	C
ATOMO	3557	CD2	PHE	L	71	58.728	45.818	7.952	1.00	42.49	L	C
ATOMO	3558	CE1	PHE	L	71	57.594	45.613	10.480	1.00	40.34	L	C
ATOMO	3559	CE2	PHE	L	71	58.515	44.567	8.526	1.00	41.49	L	C
ATOMO	3560	CZ	PHE	L	71	57.955	44.461	9.794	1.00	41.13	L	C
ATOMO	3561	C	PHE	L	71	60.331	50.125	7.733	1.00	45.21	L	C
ATOMO	3562	O	PHE	L	71	60.172	51.183	8.328	1.00	46.58	L	O
ATOMO	3563	N	THR	L	72	60.799	50.060	6.469	1.00	44.20	L	N
ATOMO	3564	CA	THR	L	72	60.899	51.279	5.668	1.00	45.03	L	C
ATOMO	3565	CB	THR	L	72	62.369	51.709	5.571	1.00	46.32	L	C
ATOMO	3566	OG1	THR	L	72	63.003	51.009	4.500	1.00	52.20	L	O
ATOMO	3567	CG2	THR	L	72	63.107	51.390	6.874	1.00	45.31	L	C
ATOMO	3568	C	THR	L	72	60.311	51.079	4.266	1.00	43.73	L	C
ATOMO	3569	O	THR	L	72	60.368	50.004	3.684	1.00	43.76	L	O
ATOMO	3570	N	LEU	L	73	59.865	52.169	3.622	1.00	41.77	L	N
ATOMO	3571	CA	LEU	L	73	59.338	52.202	2.296	1.00	40.47	L	C
ATOMO	3572	CB	LEU	L	73	57.998	52.828	2.268	1.00	40.24	L	C
ATOMO	3573	CG	LEU	L	73	57.448	53.062	0.879	1.00	40.67	L	C

ÁTOMO	3574	CD1	LEU	L	73	57.165	51.769	0.237	1.00	40.50	L	C
ÁTOMO	3575	CD2	LEU	L	73	56.164	53.766	0.848	1.00	39.57	L	C
ÁTOMO	3576	C	LEU	L	73	60.244	53.239	1.573	1.00	41.39	L	C
ÁTOMO	3577	O	LEU	L	73	60.489	54.296	2.145	1.00	40.33	L	O
ÁTOMO	3578	N	THR	L	74	60.745	52.910	0.402	1.00	41.41	L	N
ÁTOMO	3579	CA	THR	L	74	61.678	53.807	-0.355	1.00	44.65	L	C
ÁTOMO	3580	CB	THR	L	74	63.014	53.054	-0.458	1.00	45.29	L	C
ÁTOMO	3581	OG1	THR	L	74	63.448	52.846	0.943	1.00	47.02	L	O
ÁTOMO	3582	CG2	THR	L	74	64.004	53.738	-1.237	1.00	41.87	L	C
ÁTOMO	3583	C	THR	L	74	61.192	54.069	-1.791	1.00	46.11	L	C
ÁTOMO	3584	O	THR	L	74	60.575	53.156	-2.361	1.00	48.07	L	O
ÁTOMO	3585	N	ILE	L	75	61.239	55.345	-2.184	1.00	46.93	L	N
ÁTOMO	3586	CA	ILE	L	75	60.824	55.801	-3.394	1.00	49.37	L	C
ÁTOMO	3587	CB	ILE	L	75	59.716	56.813	-3.255	1.00	49.66	L	C
ÁTOMO	3588	CG2	ILE	L	75	59.075	57.029	-4.756	1.00	48.29	L	C
ÁTOMO	3589	CG1	ILE	L	75	58.597	56.280	-2.371	1.00	49.08	L	C
ÁTOMO	3590	CD1	ILE	L	75	57.615	57.253	-2.112	1.00	49.44	L	C
ÁTOMO	3591	C	ILE	L	75	62.057	56.414	-4.104	1.00	51.18	L	C
ÁTOMO	3592	O	ILE	L	75	62.647	57.343	-3.656	1.00	49.95	L	O
ÁTOMO	3593	N	ASN	L	76	62.551	55.697	-5.093	1.00	54.36	L	N
ÁTOMO	3594	CA	ASN	L	76	63.754	56.088	-5.754	1.00	56.06	L	C
ÁTOMO	3595	CB	ASN	L	76	64.910	55.467	-5.119	1.00	56.78	L	C
ÁTOMO	3596	CG	ASN	L	76	66.156	56.228	-5.432	1.00	58.44	L	C
ÁTOMO	3597	OD1	ASN	L	76	66.083	57.367	-5.916	1.00	61.35	L	O
ÁTOMO	3598	ND2	ASN	L	76	67.262	55.617	-5.265	1.00	57.10	L	N
ÁTOMO	3599	C	ASN	L	76	63.854	55.739	-7.120	1.00	56.03	L	C
ÁTOMO	3600	O	ASN	L	76	63.964	54.552	-7.421	1.00	57.71	L	O
ÁTOMO	3601	N	PRO	L	77	63.827	56.689	-7.994	1.00	55.48	L	N
ÁTOMO	3602	CD	PRO	L	77	64.022	56.425	-9.423	1.00	54.95	L	C
ÁTOMO	3603	CA	PRO	L	77	63.654	58.118	-7.725	1.00	55.35	L	C
ÁTOMO	3604	CB	PRO	L	77	64.191	58.743	-9.015	1.00	54.21	L	C
ÁTOMO	3605	CG	PRO	L	77	63.679	57.741	-10.056	1.00	54.17	L	C
ÁTOMO	3606	C	PRO	L	77	62.202	58.627	-7.678	1.00	55.61	L	C
ÁTOMO	3607	O	PRO	L	77	61.249	58.102	-8.307	1.00	55.40	L	O
ÁTOMO	3608	N	VAL	L	78	62.090	59.733	-6.904	1.00	55.66	L	N
ÁTOMO	3609	CA	VAL	L	78	60.826	60.404	-6.770	1.00	55.06	L	C
ÁTOMO	3610	CB	VAL	L	78	60.878	61.341	-5.622	1.00	55.08	L	C
ÁTOMO	3611	CG1	VAL	L	78	59.649	62.191	-5.632	1.00	54.52	L	C
ÁTOMO	3612	CG2	VAL	L	78	60.814	60.506	-4.300	1.00	53.19	L	C
ÁTOMO	3613	C	VAL	L	78	60.384	61.046	-8.097	1.00	54.90	L	C
ÁTOMO	3614	O	VAL	L	78	61.125	61.666	-8.805	1.00	55.13	L	O
ÁTOMO	3615	N	GLU	L	79	59.115	61.027	-8.313	1.00	53.45	L	N
ÁTOMO	3616	CA	GLU	L	79	58.568	61.857	-9.363	1.00	53.76	L	C
ÁTOMO	3617	CB	GLU	L	79	58.064	60.856	-10.490	1.00	55.61	L	C
ÁTOMO	3618	CG	GLU	L	79	59.101	59.872	-10.986	1.00	59.25	L	C
ÁTOMO	3619	CD	GLU	L	79	58.606	58.946	-12.112	1.00	61.38	L	C
ÁTOMO	3620	OE1	GLU	L	79	59.547	58.243	-12.667	1.00	62.40	L	O
ÁTOMO	3621	OE2	GLU	L	79	57.390	59.009	-12.468	1.00	61.93	L	O
ÁTOMO	3622	C	GLU	L	79	57.313	62.583	-8.913	1.00	52.66	L	C
ÁTOMO	3623	O	GLU	L	79	56.708	62.213	-7.941	1.00	52.31	L	O
ÁTOMO	3624	N	ALA	L	80	56.865	63.435	-9.740	1.00	52.07	L	N
ÁTOMO	3625	CA	ALA	L	80	55.877	64.405	-9.435	1.00	52.18	L	C
ÁTOMO	3626	CB	ALA	L	80	55.736	65.167	-10.630	1.00	52.09	L	C
ÁTOMO	3627	C	ALA	L	80	54.499	63.900	-9.041	1.00	51.76	L	C
ÁTOMO	3628	O	ALA	L	80	53.863	64.489	-8.186	1.00	49.52	L	O
ÁTOMO	3629	N	ASP	L	81	54.106	62.824	-9.738	1.00	51.07	L	N
ÁTOMO	3630	CA	ASP	L	81	52.991	62.079	-9.383	1.00	52.00	L	C
ÁTOMO	3631	CB	ASP	L	81	52.635	61.150	-10.581	1.00	54.54	L	C
ÁTOMO	3632	CG	ASP	L	81	51.245	60.565	-10.455	1.00	57.32	L	C
ÁTOMO	3633	OD1	ASP	L	81	50.181	61.322	-10.285	1.00	58.70	L	O
ÁTOMO	3634	OD2	ASP	L	81	51.146	59.343	-10.407	1.00	59.75	L	O
ÁTOMO	3635	C	ASP	L	81	53.025	61.238	-8.054	1.00	50.63	L	C
ÁTOMO	3636	O	ASP	L	81	52.030	60.675	-7.720	1.00	49.73	L	O
ÁTOMO	3637	N	ASP	L	82	54.075	61.308	-7.279	1.00	48.83	L	N
ÁTOMO	3638	CA	ASP	L	82	54.144	60.597	-6.012	1.00	48.89	L	C
ÁTOMO	3639	CB	ASP	L	82	55.588	60.276	-5.666	1.00	49.88	L	C
ÁTOMO	3640	CG	ASP	L	82	56.240	59.342	-6.753	1.00	52.14	L	C

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ATOMO	3641	OD1	ASP	L	82	55.485	58.500	-7.287	1.00	52.41	L	O
ATOMO	3642	OD2	ASP	L	82	57.442	59.343	-6.965	1.00	54.56	L	O
ATOMO	3643	C	ASP	L	82	53.673	61.396	-4.814	1.00	48.65	L	C
ATOMO	3644	O	ASP	L	82	53.819	60.947	-3.655	1.00	48.04	L	O
ATOMO	3645	N	VAL	L	83	53.079	62.560	-5.096	1.00	47.12	L	N
ATOMO	3646	CA	VAL	L	83	52.638	63.357	-4.005	1.00	46.76	L	C
ATOMO	3647	CB	VAL	L	83	52.165	64.848	-4.323	1.00	47.54	L	C
ATOMO	3648	CG1	VAL	L	83	53.180	65.486	-5.076	1.00	48.00	L	C
ATOMO	3649	CG2	VAL	L	83	51.050	64.877	-5.086	1.00	48.87	L	C
ATOMO	3650	C	VAL	L	83	51.408	62.654	-3.519	1.00	45.32	L	C
ATOMO	3651	O	VAL	L	83	50.459	62.419	-4.303	1.00	45.55	L	O
ATOMO	3652	N	ALA	L	84	51.466	62.377	-2.239	1.00	43.63	L	N
ATOMO	3653	CA	ALA	L	84	50.503	61.592	-1.600	1.00	42.80	L	C
ATOMO	3654	CB	ALA	L	84	50.563	60.211	-2.223	1.00	43.11	L	C
ATOMO	3655	C	ALA	L	84	50.774	61.441	-0.101	1.00	41.61	L	C
ATOMO	3656	O	ALA	L	84	51.894	61.700	0.329	1.00	42.11	L	O
ATOMO	3657	N	THR	L	85	49.863	60.727	0.565	1.00	39.60	L	N
ATOMO	3658	CA	THR	L	85	50.123	60.302	1.982	1.00	41.07	L	C
ATOMO	3659	CB	THR	L	85	48.924	60.597	2.859	1.00	41.88	L	C
ATOMO	3660	OG1	THR	L	85	48.909	61.984	2.953	1.00	43.50	L	O
ATOMO	3661	CG2	THR	L	85	49.099	60.169	4.220	1.00	42.73	L	C
ATOMO	3662	C	THR	L	85	50.389	58.812	1.925	1.00	41.86	L	C
ATOMO	3663	O	THR	L	85	49.688	58.201	1.232	1.00	42.14	L	O
ATOMO	3664	N	TYR	L	86	51.335	58.228	2.692	1.00	41.17	L	N
ATOMO	3665	CA	TYR	L	86	51.669	56.827	2.666	1.00	42.15	L	C
ATOMO	3666	CB	TYR	L	86	53.123	56.644	2.243	1.00	40.67	L	C
ATOMO	3667	CG	TYR	L	86	53.481	57.131	0.849	1.00	40.33	L	C
ATOMO	3668	CD1	TYR	L	86	53.696	58.456	0.561	1.00	37.56	L	C
ATOMO	3669	CE1	TYR	L	86	53.913	58.828	-0.781	1.00	38.35	L	C
ATOMO	3670	CD2	TYR	L	86	53.330	56.289	-0.211	1.00	38.76	L	C
ATOMO	3671	CE2	TYR	L	86	53.525	56.769	-1.598	1.00	37.31	L	C
ATOMO	3672	CZ	TYR	L	86	53.794	58.033	-1.809	1.00	40.02	L	C
ATOMO	3673	OH	TYR	L	86	53.888	58.480	-3.251	1.00	37.67	L	O
ATOMO	3674	C	TYR	L	86	51.398	56.221	3.934	1.00	44.14	L	C
ATOMO	3675	O	TYR	L	86	51.819	56.826	5.017	1.00	46.29	L	O
ATOMO	3676	N	TYR	L	87	50.679	55.064	3.945	1.00	42.51	L	N
ATOMO	3677	CA	TYR	L	87	50.454	54.392	5.249	1.00	42.40	L	C
ATOMO	3678	CB	TYR	L	87	48.946	54.323	5.530	1.00	41.06	L	C
ATOMO	3679	CG	TYR	L	87	48.195	55.573	5.499	1.00	39.25	L	C
ATOMO	3680	CD1	TYR	L	87	47.708	56.110	4.322	1.00	37.90	L	C
ATOMO	3681	CE1	TYR	L	87	46.929	57.277	4.400	1.00	37.86	L	C
ATOMO	3682	CD2	TYR	L	87	47.710	56.086	6.696	1.00	39.45	L	C
ATOMO	3683	CE2	TYR	L	87	47.057	57.273	6.743	1.00	37.41	L	C
ATOMO	3684	CZ	TYR	L	87	46.626	57.829	5.430	1.00	37.62	L	C
ATOMO	3685	OH	TYR	L	87	45.851	58.916	5.440	1.00	40.72	L	O
ATOMO	3686	C	TYR	L	87	50.917	52.985	5.331	1.00	43.25	L	C
ATOMO	3687	O	TYR	L	87	50.962	52.298	4.273	1.00	42.87	L	O
ATOMO	3688	N	CYS	L	88	51.324	52.585	6.557	1.00	44.13	L	N
ATOMO	3689	CA	CYS	L	88	51.632	51.249	6.833	1.00	44.88	L	C
ATOMO	3690	C	CYS	L	88	50.505	50.617	7.597	1.00	44.55	L	C
ATOMO	3691	O	CYS	L	88	49.622	51.295	8.129	1.00	43.38	L	O
ATOMO	3692	CB	CYS	L	88	52.986	51.039	7.654	1.00	44.75	L	C
ATOMO	3693	SG	CYS	L	88	52.928	52.042	9.185	1.00	45.57	L	S
ATOMO	3694	N	GLN	L	89	50.460	49.282	7.528	1.00	44.18	L	N
ATOMO	3695	CA	GLN	L	89	49.292	48.540	8.105	1.00	44.10	L	C
ATOMO	3696	CB	GLN	L	89	48.125	48.523	7.140	1.00	42.71	L	C
ATOMO	3697	CG	GLN	L	89	46.971	47.793	7.704	1.00	42.27	L	C
ATOMO	3698	CD	GLN	L	89	46.825	46.370	6.956	1.00	42.95	L	C
ATOMO	3699	OE1	GLN	L	89	46.839	46.258	5.730	1.00	41.37	L	O
ATOMO	3700	NE2	GLN	L	89	46.888	45.307	7.793	1.00	38.44	L	N
ATOMO	3701	C	GLN	L	89	49.756	47.136	8.424	1.00	45.06	L	C
ATOMO	3702	O	GLN	L	89	50.446	46.580	7.598	1.00	44.95	L	O
ATOMO	3703	N	GLN	L	90	49.475	46.672	9.633	1.00	44.17	L	N
ATOMO	3704	CA	GLN	L	90	49.737	45.307	10.051	1.00	44.79	L	C
ATOMO	3705	CB	GLN	L	90	50.491	45.296	11.398	1.00	42.34	L	C
ATOMO	3706	CG	GLN	L	90	49.625	45.801	12.585	1.00	44.52	L	C

ÁTOMO	3707	CD	GLN	L	90	48.654	44.710	13.155	1.00	46.51	L	C
ÁTOMO	3708	OE1	GLN	L	90	48.921	43.583	13.018	1.00	46.93	L	O
ÁTOMO	3709	NE2	GLN	L	90	47.546	45.105	13.356	1.00	46.47	L	N
ÁTOMO	3710	C	GLN	L	90	48.505	44.352	10.090	1.00	45.80	L	C
ÁTOMO	3711	O	GLN	L	90	47.331	44.706	10.396	1.00	44.66	L	O
ÁTOMO	3712	N	SER	L	91	48.793	43.072	9.763	1.00	47.04	L	N
ÁTOMO	3713	CA	SER	L	91	47.841	42.007	9.605	1.00	50.24	L	C
ÁTOMO	3714	CB	SER	L	91	47.991	41.516	8.052	1.00	50.88	L	C
ÁTOMO	3715	OG	SER	L	91	47.148	42.515	7.448	1.00	51.62	L	O
ÁTOMO	3716	C	SER	L	91	48.260	40.852	10.535	1.00	51.03	L	C
ÁTOMO	3717	O	SER	L	91	47.818	39.741	10.359	1.00	51.43	L	O
ÁTOMO	3718	N	ASN	L	92	49.096	41.136	11.526	1.00	51.69	L	N
ÁTOMO	3719	CA	ASN	L	92	49.553	40.106	12.404	1.00	52.68	L	C
ÁTOMO	3720	CB	ASN	L	92	50.955	40.293	12.867	1.00	53.64	L	C
ÁTOMO	3721	CG	ASN	L	92	51.439	39.102	13.659	1.00	54.66	L	C
ÁTOMO	3722	OD1	ASN	L	92	51.345	38.022	13.199	1.00	55.46	L	O
ÁTOMO	3723	ND2	ASN	L	92	52.089	39.337	14.773	1.00	53.66	L	N
ÁTOMO	3724	C	ASN	L	92	48.650	39.774	13.452	1.00	52.84	L	C
ÁTOMO	3725	O	ASN	L	92	48.547	38.677	13.787	1.00	51.48	L	O
ÁTOMO	3726	N	GLU	L	93	47.867	40.694	13.784	1.00	54.21	L	N
ÁTOMO	3727	CA	GLU	L	93	46.917	40.511	14.847	1.00	56.33	L	C
ÁTOMO	3728	CB	GLU	L	93	47.664	40.794	16.127	1.00	58.27	L	C
ÁTOMO	3729	CG	GLU	L	93	46.781	41.352	17.225	1.00	64.91	L	C
ÁTOMO	3730	CD	GLU	L	93	47.570	41.631	18.613	1.00	69.27	L	C
ÁTOMO	3731	OE1	GLU	L	93	47.033	42.328	19.596	1.00	69.83	L	O
ÁTOMO	3732	OE2	GLU	L	93	48.753	41.164	18.679	1.00	71.16	L	O
ÁTOMO	3733	C	GLU	L	93	45.693	41.403	14.792	1.00	55.46	L	C
ÁTOMO	3734	O	GLU	L	93	45.830	42.487	14.512	1.00	55.13	L	O
ÁTOMO	3735	N	ASP	L	94	44.532	40.975	15.329	1.00	54.53	L	N
ÁTOMO	3736	CA	ASP	L	94	43.346	41.750	15.364	1.00	53.23	L	C
ÁTOMO	3737	CB	ASP	L	941	42.142	40.809	15.294	1.00	54.70	L	C
ÁTOMO	3738	CG	ASP	L	94	42.076	39.997	13.826	1.00	57.43	L	C
ÁTOMO	3739	OD1	ASP	L	94	42.696	40.310	12.814	1.00	57.14	L	O
ÁTOMO	3740	OD2	ASP	L	94	41.463	39.008	13.648	1.00	61.04	L	O
ÁTOMO	3741	C	ASP	L	94	43.190	42.589	16.555	1.00	51.99	L	C
ÁTOMO	3742	O	ASP	L	94	43.648	42.180	17.663	1.00	54.05	L	O
ÁTOMO	3743	N	PRO	L	95	42.672	43.777	16.387	1.00	48.83	L	N
ÁTOMO	3744	CD	PRO	L	95	42.461	44.714	17.489	1.00	47.99	L	C
ÁTOMO	3745	CA	PRO	L	95	42.312	44.348	15.087	1.00	48.09	L	C
ÁTOMO	3746	CB	PRO	L	95	41.376	45.510	15.436	1.00	49.09	L	C
ÁTOMO	3747	CG	PRO	L	95	42.063	46.117	16.791	1.00	47.71	L	C
ÁTOMO	3748	C	PRO	L	95	43.396	44.759	14.188	1.00	46.87	L	C
ÁTOMO	3749	O	PRO	L	95	44.300	45.389	14.643	1.00	47.73	L	O
ÁTOMO	3750	N	TRP	L	96	43.354	44.392	12.867	1.00	45.97	L	N
ÁTOMO	3751	CA	TRP	L	96	44.289	45.074	11.947	1.00	45.52	L	C
ÁTOMO	3752	CB	TRP	L	96	44.003	44.780	10.478	1.00	45.68	L	C
ÁTOMO	3753	CG	TRP	L	96	44.181	43.372	10.097	1.00	45.86	L	C
ÁTOMO	3754	CD2	TRP	L	96	44.084	42.815	8.827	1.00	46.64	L	C
ÁTOMO	3755	CE2	TRP	L	96	44.231	41.361	8.976	1.00	46.98	L	C
ÁTOMO	3756	CE3	TRP	L	96	43.831	43.331	7.577	1.00	47.58	L	C
ÁTOMO	3757	CD1	TRP	L	96	44.369	42.327	10.941	1.00	44.89	L	C
ÁTOMO	3758	NE1	TRP	L	96	44.446	41.119	10.306	1.00	45.59	L	N
ÁTOMO	3759	CZ2	TRP	L	96	44.327	40.521	7.939	1.00	46.28	L	C
ÁTOMO	3760	CZ3	TRP	L	96	43.875	42.467	6.467	1.00	48.84	L	C
ÁTOMO	3761	CH2	TRP	L	96	44.030	41.022	6.640	1.00	47.17	L	C

ÁTOMO	3762	C	TRP	L	96	44.304	46.639	12.165	1.00	43.70	L	C
ÁTOMO	3763	O	TRP	L	96	43.282	47.212	12.334	1.00	42.66	L	O
ÁTOMO	3764	N	THR	L	97	45.480	47.279	12.172	1.00	42.35	L	N
ÁTOMO	3765	CA	THR	L	97	45.610	48.692	12.325	1.00	42.63	L	C
ÁTOMO	3766	CB	THR	L	97	46.179	49.032	13.645	1.00	41.06	L	C
ÁTOMO	3767	OG1	THR	L	97	47.337	48.270	13.806	1.00	42.43	L	O
ÁTOMO	3768	CG2	THR	L	97	45.190	48.602	14.784	1.00	42.15	L	C
ÁTOMO	3769	C	THR	L	97	46.561	49.331	11.315	1.00	42.11	L	C
ÁTOMO	3770	O	THR	L	97	47.465	48.653	10.852	1.00	40.72	L	O
ÁTOMO	3771	N	PHE	L	98	46.371	50.620	11.204	1.00	42.79	L	N
ÁTOMO	3772	CA	PHE	L	98	47.158	51.355	10.243	1.00	44.72	L	C
ÁTOMO	3773	CB	PHE	L	98	46.257	52.157	9.301	1.00	44.19	L	C
ÁTOMO	3774	CG	PHE	L	98	45.492	51.275	8.233	1.00	45.94	L	C
ÁTOMO	3775	CD1	PHE	L	98	44.260	50.690	8.549	1.00	44.38	L	C
ÁTOMO	3776	CD2	PHE	L	98	45.845	51.317	6.909	1.00	43.71	L	C
ÁTOMO	3777	CE1	PHE	L	98	43.579	49.891	7.630	1.00	44.14	L	C
ÁTOMO	3778	CE2	PHE	L	98	45.142	50.544	5.952	1.00	44.40	L	C
ÁTOMO	3779	CZ	PHE	L	98	43.990	49.844	6.323	1.00	43.77	L	C
ÁTOMO	3780	C	PHE	L	98	48.021	52.424	11.032	1.00	45.39	L	C
ÁTOMO	3781	O	PHE	L	98	47.539	53.020	11.932	1.00	46.17	L	O
ÁTOMO	3782	N	GLY	L	99	49.155	52.858	10.467	1.00	45.81	L	N
ÁTOMO	3783	CA	GLY	L	99	49.809	54.075	10.921	1.00	45.06	L	C
ÁTOMO	3784	C	GLY	L	99	49.051	55.337	10.565	1.00	46.31	L	C
ÁTOMO	3785	O	GLY	L	99	48.143	55.392	9.509	1.00	45.42	L	O
ÁTOMO	3786	N	GLY	L	100	49.531	56.441	11.247	1.00	45.88	L	N
ÁTOMO	3787	CA	GLY	L	100	49.024	57.752	11.058	1.00	45.30	L	C
ÁTOMO	3788	C	GLY	L	100	49.199	58.373	9.657	1.00	45.43	L	C
ÁTOMO	3789	O	GLY	L	100	48.790	59.443	9.313	1.00	45.57	L	O
ÁTOMO	3790	N	GLY	L	101	50.013	57.757	8.844	1.00	45.62	L	N
ÁTOMO	3791	CA	GLY	L	101	50.426	58.406	7.650	1.00	45.85	L	C
ÁTOMO	3792	C	GLY	L	101	51.663	59.279	7.620	1.00	46.19	L	C
ÁTOMO	3793	O	GLY	L	101	51.934	59.904	8.587	1.00	44.61	L	O
ÁTOMO	3794	N	THR	L	102	52.291	59.442	6.433	1.00	45.36	L	N
ÁTOMO	3795	CA	THR	L	102	53.411	60.313	6.255	1.00	45.28	L	C
ÁTOMO	3796	CB	THR	L	102	54.626	59.534	5.965	1.00	44.83	L	C
ÁTOMO	3797	OG1	THR	L	102	55.236	59.086	7.115	1.00	44.03	L	O
ÁTOMO	3798	CG2	THR	L	102	55.665	60.329	5.172	1.00	44.01	L	C
ÁTOMO	3799	C	THR	L	102	53.154	60.976	4.830	1.00	46.66	L	C
ÁTOMO	3800	O	THR	L	102	52.867	60.240	3.841	1.00	45.35	L	O
ÁTOMO	3801	N	LYS	L	103	53.058	62.320	4.809	1.00	47.18	L	N
ÁTOMO	3802	CA	LYS	L	103	52.816	63.201	3.673	1.00	48.50	L	C
ÁTOMO	3803	CB	LYS	L	103	52.191	64.445	4.212	1.00	50.90	L	C
ÁTOMO	3804	CG	LYS	L	103	51.609	65.477	3.221	1.00	56.57	L	C
ÁTOMO	3805	CD	LYS	L	103	50.967	64.749	1.911	1.00	60.51	L	C
ÁTOMO	3806	CE	LYS	L	103	50.587	65.501	0.527	1.00	60.75	L	C
ÁTOMO	3807	NZ	LYS	L	103	49.218	64.661	0.158	1.00	64.51	L	N
ÁTOMO	3808	C	LYS	L	103	54.089	63.528	2.937	1.00	49.12	L	C
ÁTOMO	3809	O	LYS	L	103	55.070	63.987	3.529	1.00	46.89	L	O
ÁTOMO	3810	N	LEU	L	104	54.136	63.203	1.640	1.00	49.88	L	N
ÁTOMO	3811	CA	LEU	L	104	55.237	63.493	0.821	1.00	50.17	L	C
ÁTOMO	3812	CB	LEU	L	104	55.450	62.279	-0.094	1.00	50.10	L	C
ÁTOMO	3813	CG	LEU	L	104	56.504	62.487	-1.172	1.00	51.61	L	C
ÁTOMO	3814	CD1	LEU	L	104	57.736	62.665	-0.408	1.00	50.91	L	C
ÁTOMO	3815	CD2	LEU	L	104	56.680	61.293	-2.010	1.00	51.28	L	C
ÁTOMO	3816	C	LEU	L	104	54.886	64.669	-0.160	1.00	50.51	L	C
ÁTOMO	3817	O	LEU	L	104	54.013	64.595	-0.991	1.00	50.36	L	O
ÁTOMO	3818	N	GLU	L	105	55.750	65.621	-0.180	1.00	52.49	L	N
ÁTOMO	3819	CA	GLU	L	105	55.759	66.681	-1.104	1.00	54.11	L	C

ÁTOMO	3820	CB	GLU	L	105	55.539	67.921	-0.352	1.00	55.10	L	C
ÁTOMO	3821	CG	GLU	L	105	54.018	67.996	-0.086	1.00	61.17	L	C
ÁTOMO	3822	CD	GLU	L	105	53.637	68.790	1.207	1.00	64.63	L	C
ÁTOMO	3823	OE1	GLU	L	105	54.425	68.420	2.179	1.00	67.64	L	O
ÁTOMO	3824	OE2	GLiU	L	105	52.652	69.661	1.163	1.00	65.16	L	O
ÁTOMO	3825	C	GLU	L	105	56.954	66.708	-2.082	1.00	54.00	L	C
ÁTOMO	3826	O	GLU	L	105	58.116	66.333	-1.762	1.00	53.00	L	O
ÁTOMO	3827	N	ILE	L	106	56.644	67.285	-3.223	1.00	54.75	L	N
ÁTOMO	3828	CA	ILE	L	106	57.745	67.670	-4.139	1.00	56.70	L	C
ÁTOMO	3829	CB	ILE	L	106	57.349	67.406	-5.589	1.00	56.28	L	C
ÁTOMO	3830	CG2	ILE	L	106	58.592	67.703	-6.534	1.00	56.73	L	C
ÁTOMO	3831	CG1	ILE	L	106	56.777	65.999	-5.661	1.00	57.37	L	C
ÁTOMO	3832	CD1	ILE	L	106	57.702	65.016	-5.232	1.00	56.71	L	C
ÁTOMO	3833	C	ILE	L	106	58.348	69.019	-3.972	1.00	57.21	L	C
ÁTOMO	3834	O	ILE	L	106	57.604	69.928	-3.826	1.00	57.93	L	O
ÁTOMO	3835	N	LYS	L	107	59.714	69.124	-3.982	1.00	57.73	L	N
ÁTOMO	3836	CA	LYS	L	107	60.478	70.430	-4.003	1.00	58.73	L	C
ÁTOMO	3837	CB	LYS	L	107	61.787	70.552	-3.283	1.00	58.92	L	C
ÁTOMO	3838	CG	LYS	L	107	61.726	70.325	-1.955	1.00	61.50	L	C
ÁTOMO	3839	CD	LYS	L	107	63.145	70.594	-1.364	1.00	63.56	L	C
ÁTOMO	3840	CE	LYS	L	107	63.002	71.212	0.071	1.00	65.27	L	C
ÁTOMO	3841	NZ	LYS	L	107	64.255	71.130	0.893	1.00	67.17	L	N
ÁTOMO	3842	C	LYS	L	107	60.785	70.780	-5.419	1.00	58.54	L	C
ÁTOMO	3843	O	LYS	L	107	61.079	69.888	-6.256	1.00	59.83	L	O
ÁTOMO	3844	N	ARG	L	108	60.489	72.052	-5.691	1.00	57.71	L	N
ÁTOMO	3845	CA	ARG	L	108	60.602	72.586	-6.940	1.00	56.79	L	C
ÁTOMO	3846	CB	ARG	L	108	59.370	72.336	-7.752	1.00	56.25	L	C
ÁTOMO	3847	CG	ARG	L	108	58.122	72.926	-7.302	1.00	57.11	L	C
ÁTOMO	3848	CD	ARC	L	108	57.194	73.347	-8.373	1.00	58.22	L	C
ÁTOMO	3849	NE	ARG	L	108	57.728	74.544	-9.051	1.00	59.58	L	N
ÁTOMO	3850	CZ	ARG	L	108	57.277	75.002	-10.208	1.00	60.73	L	C
ÁTOMO	3851	NH1	ARG	L	108	56.286	74.384	-10.896	1.00	60.18	L	N
ÁTOMO	3852	NH2	ARG	L	108	57.817	76.093	-10.739	1.00	60.38	L	N
ÁTOMO	3853	C	ARC	L	108	61.109	73.981	-6.858	1.00	57.20	L	C
ÁTOMO	3854	O	ARG	L	108	61.247	74.526	-5.783	1.00	57.37	L	O
ÁTOMO	3855	N	ALA	L	109	61.418	74.553	-8.058	1.00	56.62	L	N
ÁTOMO	3856	CA	ALA	L	109	61.799	76.015	-8.199	1.00	56.09	L	C
ÁTOMO	3857	CB	ALA	L	109	62.040	76.296	-9.655	1.00	53.79	L	C
ÁTOMO	3858	C	ALA	L	109	60.615	76.950	-7.667	1.00	56.43	L	C
ÁTOMO	3859	O	ALA	L	109	59.410	76.628	-7.921	1.00	56.16	L	O
ÁTOMO	3860	N	ASP	L	110	60.920	78.053	-6.998	1.00	56.18	L	N
ÁTOMO	3861	CA	ASP	L	110	59.892	78.966	-6.545	1.00	56.86	L	C
ÁTOMO	3862	CB	ASP	L	110	60.511	80.157	-5.837	1.00	56.81	L	C
ÁTOMO	3863	CG	ASP	L	110	61.128	79.797	-4.443	1.00	58.54	L	C
ÁTOMO	3864	OD1	ASP	L	110	60.928	78.730	-3.852	1.00	59.52	L	O
ÁTOMO	3865	OD2	ASP	L	110	61.870	80.621	-3.807	1.00	59.92	L	O
ÁTOMO	3866	C	ASP	L	110	59.125	79.430	-7.775	1.00	57.69	L	C
ÁTOMO	3867	O	ASP	L	110	59.672	79.417	-8.905	1.00	59.35	L	O
ÁTOMO	3868	N	ALA	L	111	57.838	79.723	-7.595	1.00	56.11	L	N
ÁTOMO	3869	CA	ALA	L	111	56.869	80.171	-8.619	1.00	55.19	L	C
ÁTOMO	3870	CB	ALA	L	111	56.070	79.034	-9.159	1.00	52.10	L	C
ÁTOMO	3871	C	ALA	L	111	55.941	81.179	-7.991	1.00	55.80	L	C
ÁTOMO	3872	O	ALA	L	111	55.376	80.892	-6.956	1.00	55.37	L	O
ÁTOMO	3873	N	ALA	L	112	55.807	82.368	-8.618	1.00	56.05	L	N
ÁTOMO	3874	CA	ALA	L	112	54.850	83.310	-8.173	1.00	56.07	L	C
ÁTOMO	3875	CB	ALA	L	112	55.222	84.806	-8.826	1.00	55.31	L	C
ÁTOMO	3876	C	ALA	L	112	53.370	82.893	-8.402	1.00	56.07	L	C
ÁTOMO	3877	O	ALA	L	112	52.988	82.406	-9.455	1.00	56.89	L	O

ÁTOMO	3878	N	PRO	L	113	52.474	83.234	-7.505	1.00	55.80	L	N
ÁTOMO	3879	CD	PRO	L	113	52.643	84.043	-6.244	1.00	54.68	L	C
ÁTOMO	3880	CA	PRO	L	113	51.074	83.015	-7.777	1.00	54.69	L	C
ÁTOMO	3881	CB	PRO	L	113	50.384	83.513	-6.451	1.00	54.68	L	C
ÁTOMO	3882	CG	PRO	L	113	51.271	84.529	-5.848	1.00	53.65	L	C
ÁTOMO	3883	C	PRO	L	113	50.516	83.920	-8.805	1.00	54.74	L	C
ÁTOMO	3884	O	PRO	L	113	50.922	85.031	-8.877	1.00	55.39	L	O
ÁTOMO	3885	N	THR	L	114	49.392	83.530	-9.334	1.00	54.38	L	N
ÁTOMO	3886	CA	THR	L	114	48.631	84.218	-10.276	1.00	54.72	L	C
ÁTOMO	3887	CB	THR	L	114	48.300	83.289	-11.360	1.00	55.08	L	C
ÁTOMO	3888	OG1	THR	L	114	49.517	82.942	-11.940	1.00	56.71	L	O
ÁTOMO	3889	CG2	THR	L	114	47.352	84.010	-12.458	1.00	54.02	L	C
ÁTOMO	3890	C	THR	L	114	47.315	84.529	-9.570	1.00	55.93	L	C
ÁTOMO	3891	O	THR	L	114	46.529	83.548	-9.242	1.00	55.95	L	O
ÁTOMO	3892	N	VAL	L	115	47.093	85.831	-9.299	1.00	55.11	L	N
ÁTOMO	3893	CA	VAL	L	115	46.026	86.296	-8.435	1.00	55.65	L	C
ÁTOMO	3894	CB	VAL	L	115	46.526	87.339	-7.568	1.00	55.29	L	C
ÁTOMO	3895	CG1	VAL	L	115	45.498	87.847	-6.585	1.00	54.37	L	C
ÁTOMO	3896	CG2	VAL	L	115	47.733	86.748	-6.861	1.00	55.51	L	C
ÁTOMO	3897	C	VAL	L	115	44.896	86.832	-9.187	1.00	56.77	L	C
ÁTOMO	3898	O	VAL	L	115	45.067	87.612	-10.165	1.00	57.49	L	O
ÁTOMO	3899	N	SER	L	116	43.697	86.493	-8.747	1.00	57.44	L	N
ÁTOMO	3900	CA	SER	L	116	42.536	87.040	-9.514	1.00	59.96	L	C
ÁTOMO	3901	CB	SER	L	116	41.993	86.004	-10.433	1.00	59.44	L	C
ÁTOMO	3902	OG	SER	L	116	43.127	85.809	-11.254	1.00	63.37	L	O
ÁTOMO	3903	C	SER	L	116	41.517	87.421	-8.528	1.00	61.30	L	C
ÁTOMO	3904	O	SER	L	116	41.396	86.709	-7.486	1.00	62.38	L	O
ÁTOMO	3905	N	ILE	L	117	40.807	88.529	-8.785	1.00	62.29	L	N
ÁTOMO	3906	CA	ILE	L	117	39.705	88.949	-7.955	1.00	63.59	L	C
ÁTOMO	3907	CB	ILE	L	117	40.034	90.318	-7.214	1.00	64.24	L	C
ÁTOMO	3908	CG2	ILE	L	117	39.911	91.545	-8.193	1.00	63.93	L	C
ÁTOMO	3909	CG1	ILE	L	117	39.176	90.561	-5.851	1.00	63.82	L	C
ÁTOMO	3910	CD1	ILE	L	117	39.509	91.728	-5.135	1.00	63.17	L	C
ÁTOMO	3911	C	ILE	L	117	38.324	88.847	-8.605	1.00	64.65	L	C
ÁTOMO	3912	O	ILE	L	117	38.135	88.842	-9.868	1.00	66.10	L	O
ÁTOMO	3913	N	PHE	L	118	37.301	88.667	-7.783	1.00	65.70	L	N
ÁTOMO	3914	CA	PHE	L	118	36.011	88.514	-8.316	1.00	67.48	L	C
ÁTOMO	3915	CB	PHE	L	118	35.650	87.070	-8.575	1.00	68.00	L	C
ÁTOMO	3916	CG	PHE	L	118	36.650	86.307	-9.398	1.00	68.57	L	C
ÁTOMO	3917	CD1	PHE	L	118	37.740	85.735	-8.812	1.00	69.91	L	C
ÁTOMO	3918	CD2	PHE	L	118	36.448	86.087	-10.734	1.00	67.93	L	C
ÁTOMO	3919	CE1	PHE	L	118	38.640	85.062	-9.583	1.00	69.94	L	C
ÁTOMO	3920	CE2	PHE	L	118	37.333	85.356	-11.483	1.00	68.43	L	C
ÁTOMO	3921	CZ	PHE	L	118	38.378	84.846	-10.967	1.00	68.56	L	C
ÁTOMO	3922	C	PHE	L	118	34.952	89.192	-7.470	1.00	68.64	L	C
ÁTOMO	3923	O	PHE	L	118	34.821	88.899	-6.264	1.00	69.49	L	O
ÁTOMO	3924	N	PRO	L	119	34.151	90.103	-8.061	1.00	69.22	L	N
ÁTOMO	3925	CD	PRO	L	119	34.183	90.603	-9.460	1.00	68.87	L	C
ÁTOMO	3926	CA	PRO	L	119	33.094	90.771	-7.290	1.00	69.16	L	C
ÁTOMO	3927	CB	PRO	L	119	32.689	91.929	-8.220	1.00	68.71	L	C
ÁTOMO	3928	CG	PRO	L	119	33.934	92.087	-9.087	1.00	69.40	L	C
ÁTOMO	3929	C	PRO	L	119	31.941	89.878	-7.085	1.00	69.48	L	C
ÁTOMO	3930	O	PRO	L	119	31.819	88.991	-7.820	1.00	69.66	L	O
ÁTOMO	3931	N	PRO	L	120	31.018	90.158	-6.195	1.00	70.27	L	N
ÁTOMO	3932	CD	PRO	L	120	30.919	91.398	-5.392	1.00	70.15	L	C
ÁTOMO	3933	CA	PRO	L	120	29.871	89.237	-5.969	1.00	71.14	L	C
ÁTOMO	3934	CB	PRO	L	120	29.149	89.866	-4.837	1.00	70.76	L	C
ÁTOMO	3935	CG	PRO	L	120	30.185	90.868	-4.253	1.00	70.81	L	C
ÁTOMO	3936	C	PRO	L	120	28.917	89.154	-7.152	1.00	71.90	L	C
ÁTOMO	3937	O	PRO	L	120	28.743	90.113	-7.840	1.00	72.28	L	O

ÁTOMO	3938	N	SER	L	121	28.311	88.008	-7.406	1.00	73.49	L	N
ÁTOMO	3939	CA	SER	L	121	27.432	87.865	-8.562	1.00	75.09	L	C
ÁTOMO	3940	CB	SER	L	121	27.094	86.412	-8.743	1.00	75.12	L	C
ÁTOMO	3941	OG	SER	L	121	26.586	85.860	-7.505	1.00	75.74	L	O
ÁTOMO	3942	C	SER	L	121	26.132	88.602	-8.241	1.00	76.41	L	C
ÁTOMO	3943	O	SER	L	121	25.753	88.759	-7.076	1.00	76.22	L	O
ÁTOMO	3944	N	SER	L	122	25.406	89.005	-9.291	1.00	77.92	L	N
ÁTOMO	3945	CA	SER	L	122	24.027	89.566	-9.093	1.00	79.32	L	C
ÁTOMO	3946	CB	SER	L	122	23.326	89.892	-10.400	1.00	79.46	L	C
ÁTOMO	3947	OG	SER	L	122	24.061	89.395	-11.455	1.00	81.39	L	O
ÁTOMO	3948	C	SER	L	122	23.128	88.620	-8.362	1.00	79.71	L	C
ÁTOMO	3949	O	SER	L	122	22.367	89.032	-7.482	1.00	79.61	L	O
ÁTOMO	3950	N	GLU	L	123	23.245	87.351	-8.720	1.00	79.84	L	N
ÁTOMO	3951	CA	GLU	L	123	22.352	86.391	-8.170	1.00	80.62	L	C
ÁTOMO	3952	CB	GLU	L	123	22.642	85.086	-8.917	1.0.0	82.32	L	C
ÁTOMO	3953	CG	GLU	L	123	21.476	84.057	-9.091	1.00	84.76	L	C
ÁTOMO	3954	CD	GLU	L	123	21.980	82.620	-9.416	1.00	86.63	L	C
ÁTOMO	3955	OE1	GLU	L	123	21.543	81.649	-8.701	1.00	88.17	L	O
ÁTOMO	3956	OE2	GLU	L	123	22.830	82.491	-10.349	1.00	87.03	L	O
ÁTOMO	3957	C	GLU	L	123	22.341	86.308	-6.609	1.00	79.85	L	C
ÁTOMO	3958	O	GLU	L	123	21.293	86.136	-5.979	1.00	79.94	L	O
ÁTOMO	3959	N	GLN	L	124	23.486	86.506	-5.988	1.00	79.17	L	N
ÁTOMO	3960	CA	GLN	L	124	23.628	86.412	-4.536	1.00	78.84	L	C
ÁTOMO	3961	CB	GLN	L	124	25.119	86.103	-4.212	1.00	77.47	L	C
ÁTOMO	3962	CG	GLN	L	124	25.590	86.085	-2.803	1.00	75.52	L	C
ÁTOMO	3963	CD	GLN	L	124	27.166	86.208	-2.726	1.00	75.37	L	C
ÁTOMO	3964	OE1	GLN	L	124	27.734	86.138	-1.666	1.00	75.06	L	O
ÁTOMO	3965	NE2	GLN	L	124	27.811	86.385	-3.834	1.00	74.95	L	N
ÁTOMO	3966	C	GLN	L	124	23.222	87.747	-3.926	1.00	79.38	L	C
ÁTOMO	3967	O	GLN	L	124	22.714	87.841	-2.784	1.00	78.57	L	O
ÁTOMO	3968	N	LEU	L	125	23.531	88.797	-4.708	1.00	80.14	L	N
ÁTOMO	3969	CA	LEU	L	125	23.192	90.185	-4.268	1.00	80.82	L	C
ÁTOMO	3970	CB	LEU	L	125	23.623	91.162	-5.306	1.00	79.74	L	C
ÁTOMO	3971	CG	LEU	L	125	24.770	92.122	-5.094	1.00	78.76	L	C
ÁTOMO	3972	CD1	LEU	L	125	25.497	91.659	-3.878	1.00	78.25	L	C
ÁTOMO	3973	CD2	LEU	L	125	25.712	92.319	-6.364	1.00	78.11	L	C
ÁTOMO	3974	C	LEU	L	125	21.678	90.292	-4.087	1.00	81.71	L	C
ÁTOMO	3975	O	LEU	L	125	21.222	90.372	-2.956	1.00	82.15	L	O
ÁTOMO	3976	N	THR	L	126	20.893	90.207	-5.150	1.00	81.94	L	N
ÁTOMO	3977	CA	THR	L	126	19.476	90.116	-4.932	1.00	82.43	L	C
ÁTOMO	3978	CB	THR	L	126	18.740	89.577	-6.127	1.00	82.87	L	C
ÁTOMO	3979	OG1	THR	L	126	19.106	88.209	-6.272	1.00	84.01	L	O
ÁTOMO	3980	CG2	THR	L	126	19.112	90.313	-7.442	1.00	83.71	L	C
ÁTOMO	3981	C	THR	L	126	19.188	89.148	-3.809	1.00	82.03	L	C
ÁTOMO	3982	O	THR	L	126	18.218	89.262	-3.161	1.00	83.16	L	O
ÁTOMO	3983	N	SER	L	127	19.972	88.128	-3.608	1.00	81.29	L	N
ÁTOMO	3984	CA	SER	L	127	19.769	87.307	-2.421	1.00	80.30	L	C
ÁTOMO	3985	CB	SER	L	127	20.700	86.060	-2.431	1.00	81.26	L	C
ÁTOMO	3986	OG	SER	L	127	20.075	84.893	-1.916	1.00	82.17	L	O
ÁTOMO	3987	C	SER	L	127	19.959	87.974	-1.042	1.00	78.92	L	C
ÁTOMO	3988	O	SER	L	127	19.477	87.367	-0.088	1.00	79.15	L	O
ÁTOMO	3989	N	GLY	L	128	20.661	89.130	-0.915	1.00	77.27	L	N
ÁTOMO	3990	CA	GLY	L	128	21.107	89.689	0.384	1.00	76.66	L	C
ÁTOMO	3991	C	GLY	L	128	22.578	89.517	0.913	1.00	76.00	L	C
ÁTOMO	3992	O	GLY	L	128	22.943	89.960	2.002	1.00	75.56	L	O
ÁTOMO	3993	N	GLY	L	129	23.398	88.774	0.171	1.00	75.16	L	N
ÁTOMO	3994	CA	GLY	L	129	24.795	88.519	0.509	1.00	73.79	L	C
ÁTOMO	3995	C	GLY	L	129	25.750	89.161	-0.515	1.00	72.59	L	C
ÁTOMO	3996	O	GLY	L	129	25.391	89.350	-1.659	1.00	71.66	L	O

ÁTOMO	3997	N	ALA	L	130	26.977	89.495	-0.095	1.00	71.12	L	N
ÁTOMO	3998	CA	ALA	L	130	27.996	89.860	-1.089	1.00	69.78	L	C
ÁTOMO	3999	CB	ALA	L	130	28.269	91.282	-0.981	1.00	69.16	L	C
ÁTOMO	4000	C	ALA	L	130	29.248	88.975	-0.726	1.00	69.14	L	C
ÁTOMO	4001	O	ALA	L	130	29.693	89.059	0.402	1.00	69.40	L	O
ÁTOMO	4002	N	SER	L	131	29.685	88.053	-1.568	1.00	67.83	L	N
ÁTOMO	4003	CA	SER	L	131	30.954	87.324	-1.317	1.00	66.38	L	C
ÁTOMO	4004	CB	SER	L	131	30.761	85.779	-1.366	1.00	66.45	L	C
ÁTOMO	4005	OG	SER	L	131	29.911	85.269	-0.267	1.00	65.95	L	O
ÁTOMO	4006	C	SER	L	131	31.977	87.774	-2.347	1.00	65.46	L	C
ÁTOMO	4007	O	SER	L	131	31.640	87.847	-3.602	1.00	65.33	L	O
ÁTOMO	4008	N	VAL	L	132	33.141	88.177	-1.850	1.00	64.00	L	N
ÁTOMO	4009	CA	VAL	L	132	34.236	88.632	-2.718	1.00	63.13	L	C
ÁTOMO	4010	CB	VAL	L	132	34.819	89.972	-2.286	1.00	63.18	L	C
ÁTOMO	4011	CG1	VAL	L	132	35.786	90.546	-3.235	1.00	62.10	L	C
ÁTOMO	4012	CG2	VAL	L	132	33.797	90.979	-2.012	1.00	63.46	L	C
ÁTOMO	4013	C	VAL	L	132	35.287	87.545	-2.681	1.00	62.52	L	C
ÁTOMO	4014	O	VAL	L	132	35.689	87.053	-1.599	1.00	61.71	L	O
ÁTOMO	4015	N	VAL	L	133	35.674	87.092	-3.864	1.00	62.28	L	N
ÁTOMO	4016	CA	VAL	L	133	36.508	85.922	-4.004	1.00	61.13	L	C
ÁTOMO	4017	CB	VAL	L	133	35.845	84.812	-4.879	1.00	60.79	L	C
ÁTOMO	4018	CG1	VAL	L	133	36.666	83.560	-4.734	1.00	61.21	L	C
ÁTOMO	4019	CG2	VAL	L	133	34.490	84.536	-4.496	1.00	60.87	L	C
ÁTOMO	4020	C	VAL	L	133	37.779	86.296	-4.687	1.00	60.84	L	C
ÁTOMO	4021	O	VAL	L	133	37.838	87.026	-5.766	1.00	59.39	L	O
ÁTOMO	4022	N	CYS	L	134	38.808	85.738	-4.151	1.00	60.55	L	N
ÁTOMO	4023	CA	CYS	L	134	40.170	85.866	-4.711	1.00	60.80	L	C
ÁTOMO	4024	C	CYS	L	134	40.910	84.507	-4.875	1.00	58.83	L	C
ÁTOMO	4025	O	CYS	L	134	41.022	83.716	-3.947	1.00	58.54	L	O
ÁTOMO	4026	CB	CYS	L	134	40.963	86.783	-3.760	1.00	62.49	L	C
ÁTOMO	4027	SG	CYS	L	134	42.525	87.373	-4.465	1.00	66.69	L	S
ÁTOMO	4028	N	PHE	L	135	41.465	84.202	-6.034	1.00	58.10	L	N
ÁTOMO	4029	CA	PHE	L	135	42.320	83.024	-6.337	1.00	58.00	L	C
ÁTOMO	4030	CB	PHE	L	135	41.916	82.231	-7.608	1.00	57.99	L	C
ÁTOMO	4031	CG	PHE	L	135	40.563	81.667	-7.504	1.00	59.98	L	C
ÁTOMO	4032	CD1	PHE	L	135	40.199	80.894	-6.353	1.00	60.26	L	C
ÁTOMO	4033	CD2	PHE	L	135	39.570	81.927	-8.426	1.00	60.52	L	C
ÁTOMO	4034	CE1	PHE	L	135	38.918	80.414	-6.220	1.00	60.79	L	C
ÁTOMO	4035	CE2	PHE	L	135	38.274	81.405	-8.208	1.00	60.24	L	C
ÁTOMO	4036	CZ	PHE	L	135	37.979	80.723	-7.131	1.00	60.17	L	C
ÁTOMO	4037	C	PHE	L	135	43.695	83.390	-6.360	1.00	57.37	L	C
ÁTOMO	4038	O	PHE	L	135	44.065	84.430	-6.793	1.00	59.08	L	O
ÁTOMO	4039	N	LEU	L	136	44.475	82.615	-5.732	1.00	56.20	L	N
ÁTOMO	4040	CA	LEU	L	136	45.902	82.636	-5.797	1.00	56.01	L	C
ÁTOMO	4041	CB	LEU	L	136	46.466	82.926	-4.349	1.00	55.00	L	C
ÁTOMO	4042	CG	LEU	L	136	46.197	84.380	-3.849	1.00	53.48	L	C
ÁTOMO	4043	CD1	LEU	L	136	44.809	84.348	-3.487	1.00	52.57	L	C
ÁTOMO	4044	CD2	LEU	L	136	47.206	84.588	-2.663	1.00	53.68	L	C
ÁTOMO	4045	C	LEU	L	136	46.461	81.270	-6.220	1.00	55.46	L	C
ÁTOMO	4046	O	LEU	L	136	46.648	80.361	-5.363	1.00	55.72	L	O
ÁTOMO	4047	N	ASN	L	137	46.696	81.125	-7.504	1.00	54.71	L	N
ÁTOMO	4048	CA	ASN	L	137	46.908	79.853	-8.217	1.00	54.02	L	C
ÁTOMO	4049	CB	ASN	L	137	45.912	79.848	-9.315	1.00	53.13	L	C
ÁTOMO	4050	CG	ASN	L	137	44.576	79.532	-8.824	1.00	54.07	L	C
ÁTOMO	4051	OD1	ASN	L	137	43.611	79.418	-9.556	1.00	54.87	L	O
ÁTOMO	4052	ND2	ASN	L	137	44.486	79.396	-7.490	1.00	53.36	L	N
ÁTOMO	4053	C	ASN	L	137	48.280	79.488	-8.641	1.00	53.42	L	C
ÁTOMO	4054	O	ASN	L	137	49.023	80.363	-9.044	1.00	52.73	L	O

ÁTOMO	4055	N	ASN	L	138	48.717	78.234	-8.388	1.00	53.56	L	N
ÁTOMO	4056	CA	ASN	L	138	50.019	77.761	-8.934	1.00	52.82	L	C
ÁTOMO	4057	CB	ASN	L	138	49.948	77.670	-10.515	1.00	53.07	L	C
ÁTOMO	4058	CG	ASN	L	138	48.845	76.761	-10.939	1.00	53.90	L	C
ÁTOMO	4059	OD1	ASN	L	138	47.738	77.168	-11.022	1.00	54.05	L	O
ÁTOMO	4060	ND2	ASN	L	138	49.164	75.451	-11.148	1.00	56.15	L	N
ÁTOMO	4061	C	ASN	L	138	51.282	78.409	-8.462	1.00	52.73	L	C
ÁTOMO	4062	O	ASN	L	138	52.085	78.958	-9.222	1.00	52.99	L	O
ÁTOMO	4063	N	PHE	L	139	51.493	78.369	-7.146	1.00	51.91	L	N
ÁTOMO	4064	CA	PHE	L	139	52.686	78.991	-6.586	1.00	50.60	L	C
ÁTOMO	4065	CB	PHE	L	139	52.243	80.105	-5.715	1.00	50.74	L	C
ÁTOMO	4066	CG	PHE	L	139	51.351	79.679	-4.491	1.00	48.25	L	C
ÁTOMO	4067	Col	PHE	L	139	51.889	79.231	-3.410	1.00	46.22	L	C
ÁTOMO	4068	CD2	PHE	L	139	50.020	79.854	-4.515	1.00	47.57	L	C
ÁTOMO	4069	CE1	PHE	L	139	51.033	78.832	-2.264	1.00	44.38	L	C
ÁTOMO	4070	CE2	PHE	L	139	49.153	79.655	-3.432	1.00	46.99	L	C
ÁTOMO	4071	CZ	PHE	L	139	49.685	79.145	-2.293	1.00	46.10	L	C
ÁTOMO	4072	C	PHE	L	139	53.479	78.035	-5.987	1.00	50.74	L	C
ÁTOMO	4073	O	PHE	L	139	52.967	76.992	-5.659	1.00	51.42	L	O
ÁTOMO	4074	N	TYR	L	140	54.743	78.307	-5.712	1.00	50.69	L	N
ÁTOMO	4075	CA	TYR	L	140	55.491	77.532	-4.737	1.00	51.02	L	C
ÁTOMO	4076	CB	TYR	L	140	56.222	76.384	-5.565	1.00	50.21	L	C
ÁTOMO	4077	CG	TYR	L	140	57.032	75.429	-4.718	1.00	50.51	L	C
ÁTOMO	4078	CD1	TYR	L	140	58.310	75.776	-4.260	1.00	50.90	L	C
ÁTOMO	4079	CE1	TYR	L	140	59.070	74.860	-3.430	1.00	51.73	L	C
ÁTOMO	4080	CD2	TYR	L	140	56.489	74.231	-4.313	1.00	50.29	L	C
ÁTOMO	4081	CE2	TYR	L	140	57.189	73.398	-3.442	1.00	49.97	L	C
ÁTOMO	4082	CZ	TYR	L	140	58.482	73.731	-3.033	1.00	50.71	L	C
ÁTOMO	4083	OH	TYR	L	140	59.122	72.903	-2.208	1.00	51.28	L	O
ÁTOMO	4084	C	TYR	L	140	56.515	78.436	-4.108	1.00	52.40	L	C
ÁTOMO	4085	O	TYR	L	140	57.132	79.318	-4.849	1.00	53.02	L	O
ÁTOMO	4086	N	PRO	L	141	56.914	78.189	-2.837	1.00	53.24	L	N
ÁTOMO	4087	CD	PRO	L	141	58.097	78.906	-2.277	1.00	53.94	L	C
ÁTOMO	4088	CA	PRO	L	141	56.381	77.114	-1.909	1.00	53.82	L	C
ÁTOMO	4089	CB	PRO	L	141	57.436	77.042	-0.809	1.00	54.17	L	C
ÁTOMO	4090	CG	PRO	L	141	58.112	78.417	-0.784	1.00	54.65	L	C
ÁTOMO	4091	C	PRO	L	141	55.060	77.398	-1.338.	1.00	55.01	L	C
ÁTOMO	4092	O	PRO	L	141	54.450	78.370	-1.550	1.00	54.05	L	O
ÁTOMO	4093	N	LYS	L	142	54.522	76.460	-0.588	1.00	56.78	L	N
ÁTOMO	4094	CA	LYS	L	142	53.103	76.616	-0.029	1.00	58.31	L	C
ÁTOMO	4095	CB	LYS	L	142	52.811	75.335	0.800	1.00	59.20	L	C
ÁTOMO	4096	CG	LYS	L	142	53.687	75.266	2.059	1.00	62.44	L	C
ÁTOMO	4097	CD	LYS	L	142	53.100	74.381	3.213	1.00	66.39	L	C
ÁTOMO	4098	CE	LYS	L	142	53.392	72.900	2.888	1.00	68.80	L	C
ÁTOMO	4099	NZ	LYS	L	142	52.247	72.069	3.031	1.00	71.04	L	N
ÁTOMO	4100	C	LYS	L	142	52.742	77.846	0.910	1.00	57.77	L	C
ÁTOMO	4101	O	LYS	L	142	51.589	78.219	1.053	1.00	56.47	L	O
ÁTOMO	4102	N	ASP	L	143	53.695	78.301	1.647	1.00	58.64	L	N
ÁTOMO	4103	CA	ASP	L	143	53.509	79.452	2.544	1.00	60.59	L	C
ÁTOMO	4104	CB	ASP	L	143	54.787	79.662	3.435	1.00	63.72	L	C
ÁTOMO	4105	CG	ASP	L	143	55.369	78.208	3.881	1.00	68.11	L	C
ÁTOMO	4106	OD1	ASP	L	143	54.603	77.551	4.678	1.00	71.23	L	O
ÁTOMO	4107	OD2	ASP	L	143	56.381	77.589	3.350	1.00	68.52	L	O
ÁTOMO	4108	C	ASP	L	143	53.144	80.707	1.777	1.00	59.86	L	C
ÁTOMO	4109	O	ASP	L	143	53.781	81.100	0.832	1.00	59.91	L	O
ÁTOMO	4110	N	ILE	L	144	51.992	81.227	2.139	1.00	59.20	L	N
ÁTOMO	4111	CA	ILE	L	144	51.460	82.460	1.579	1.00	57.84	L	C
ÁTOMO	4112	CB	ILE	L	144	50.848	82.198	0.240	1.00	57.69	L	C
ÁTOMO	4113	CG2	ILE	L	144	49.495	81.527	0.333	1.00	57.29	L	C
ÁTOMO	4114	CG1	ILE	L	144	50.459	83.396	-0.447	1.00	56.97	L	C
ÁTOMO	4115	CD1	ILE	L	144	50.218	82.952	-1.999	1.00	58.74	L	C
ÁTOMO	4116	C	ILE	L	144	50.517	83.183	2.516	1.00	57.84	L	C
ÁTOMO	4117	O	ILE	L	144	50.025	82.633	3.447	1.00	57.82	L	O
ÁTOMO	4118	N	ASN	L	145	50.398	84.459	2.352	1.00	58.32	L	N

ÁTOMO	4119	CA	ASN	L	145	49.474	85.216	3.173	1.00	58.90	L	C
ÁTOMO	4120	CB	ASN	L	145	50.180	85.973	4.384	1.00	61.33	L	C
ÁTOMO	4121	CG	ASN	L	145	50.711	84.960	5.438	1.00	65.53	L	C
ÁTOMO	4122	OD1	ASN	L	145	50.064	84.629	6.562	1.00	67.50	L	O
ÁTOMO	4123	ND2	ASN	L	145	51.803	84.324	5.035	1.00	67.78	L	N
ÁTOMO	4124	C	ASN	L	145	48.750	86.163	2.315	1.00	58.33	L	C
ÁTOMO	4125	O	ASN	L	145	49.351	86.782	1.573	1.00	57.41	L	O
ÁTOMO	4126	N	VAL	L	146	47.438	86.226	2.478	1.00	57.86	L	N
ÁTOMO	4127	CA	VAL	L	146	46.555	87.234	1.924	1.00	58.06	L	C
ÁTOMO	4128	CB	VAL	L	146	45.303	86.517	1.079	1.00	57.95	L	C
ÁTOMO	4129	CG1	VAL	L	146	44.307	86.211	1.872	1.00	57.78	L	C
ÁTOMO	4130	CG2	VAL	L	146	44.674	87.508	0.160	1.00	58.46	L	C
ÁTOMO	4131	C	VAL	L	146	45.900	88.252	2.910	1.00	57.64	L	C
ÁTOMO	4132	O	VAL	L	146	45.598	87.920	4.076	1.00	58.21	L	O
ÁTOMO	4133	N	ALA	L	147	45.671	89.436	2.420	1.00	57.33	L	N
ÁTOMO	4134	CA	ALA	L	147	45.064	90.601	3.176	1.00	57.71	L	C
ÁTOMO	4135	CB	ALA	L	147	46.137	91.686	3.585	1.00	55.87	L	C
ÁTOMO	4136	C	ALA	L	147	44.014	91.255	2.324	1.00	57.31	L	C
ÁTOMO	4137	O	ALA	L	147	44.223	91.499	1.101	1.00	58.04	L	O
ÁTOMO	4138	N	TRP	L	148	42.851	91.453	2.894	1.00	57.87	L	N
ÁTOMO	4139	CA	TRP	L	148	41.821	92.218	2.236	1.00	58.89	L	C
ÁTOMO	4140	CB	TRP	L	148	40.462	91.584	2.565	1.00	57.33	L	C
ÁTOMO	4141	CG	TRP	L	148	40.288	90.291	1.853	1.00	57.66	L	C
ÁTOMO	4142	CD2	TRP	L	148	39.694	90.085	0.541	1.00	57.55	L	C
ÁTOMO	4143	CE2	TRP	L	148	39.622	88.685	0.329	1.00	57.15	L	C
ÁTOMO	4144	CE3	TRP	L	148	39.241	90.945	-0.454	1.00	56.56	L	C
ÁTOMO	4145	CD1	TRP	L	148	40.542	89.005	2.371	1.00	58.03	L	C
ÁTOMO	4146	NE1	TRP	L	148	40.157	88.010	1.528	1.00	57.48	L	N
ÁTOMO	4147	CZ2	TRP	L	148	39.105	88.187	-0.854	1.00	56.94	L	C
ÁTOMO	4148	CZ3	TRP	L	148	38.719	90.449	-1.634	1.00	57.22	L	C
ÁTOMO	4149	CH2	TRP	L	148	38.652	89.052	-1.835	1.00	57.66	L	C
ÁTOMO	4150	C	TRP	L	148	41.859	93.669	2.705	1.00	59.68	L	C
ÁTOMO	4151	O	TRP	L	148	42.073	93.972	3.876	1.00	58.38	L	O
ÁTOMO	4152	N	LYS	L	149	41.705	94.576	1.727	1.00	60.92	L	N
ÁTOMO	4153	CA	LYS	L	149	41.490	95.970	2.071	1.00	62.70	L	C
ÁTOMO	4154	CB	LYS	L	149	42.705	96.770	1.601	1.00	62.73	L	C
ÁTOMO	4155	CG	LYS	L	149	44.017	96.275	2.216	1.00	65.79	L	C
ÁTOMO	4156	CD	LYS	L	149	45.191	97.199	1.883	1.00	67.30	L	C
ÁTOMO	4157	CE	LYS	L	149	46.310	97.132	2.928	1.00	68.06	L	C
ÁTOMO	4158	NZ	LYS	L	149	47.554	97.631	2.346	1.00	69.75	L	N
ÁTOMO	4159	C	LYS	L	149	40.236	96.513	1.393	1.00	64.55	L	C
ÁTOMO	4160	O	LYS	L	149	40.083	96.480	0.179	1.00	65.43	L	O
ÁTOMO	4161	N	ILE	L	150	39.297	96.975	2.238	1.00	66.29	L	N
ÁTOMO	4162	CA	ILE	L	150	38.118	97.649	1.709	1.00	68.24	L	C
ÁTOMO	4163	CB	ILE	L	150	36.893	97.082	2.420	1.00	67.61	L	C
ÁTOMO	4164	CG2	ILE	L	150	35.672	97.148	1.483	1.00	66.74	L	C
ÁTOMO	4165	CG1	ILE	L	150	37.115	95.617	2.807	1.00	68.87	L	C
ÁTOMO	4166	CD1	ILE	L	150	35.801	94.846	2.900	1.00	68.94	L	C
ÁTOMO	4167	C	ILE	L	150	38.190	99.155	1.961	1.00	69.93	L	C
ÁTOMO	4168	O	ILE	L	150	37.920	99.651	3.048	1.00	70.68	L	O
ÁTOMO	4169	N	ASP	L	151	38.614	99.893	0.919	1.00	72.15	L	N
ÁTOMO	4170	CA	ASP	L	151	38.698	101.335	1.080	1.00	75.11	L	C
ÁTOMO	4171	CB	ASP	L	151	37.330	101.823	1.563	1.00	76.60	L	C
ÁTOMO	4172	CG	ASP	L	151	36.515	102.376	0.400	1.00	78.00	L	C
ÁTOMO	4173	OD1	ASP	L	151	36.903	102.148	-0.744	1.00	80.12	L	O
ÁTOMO	4174	OD2	ASP	L	151	35.490	103.004	0.660	1.00	78.82	L	O
ÁTOMO	4175	C	ASP	L	151	39.771	101.714	2.116	1.00	76.27	L	C
ÁTOMO	4176	O	ASP	L	151	39.501	102.350	3.129	1.00	77.76	L	O

ATOMO	4177	N	GLY	L	152	41.005	101.233	1.858	1.00	76.18	L	N
ATOMO	4178	CA	GLY	L	152	42.135	101.650	2.684	1.00	77.99	L	C
ATOMO	4179	C	GLY	L	152	42.400	100.699	3.858	1.00	79.58	L	C
ATOMO	4180	O	GLY	L	152	43.497	100.184	4.043	1.00	80.56	L	O
ATOMO	4181	N	SER	L	153	41.354	100.501	4.688	1.00	79.95	L	N
ATOMO	4182	CA	SER	L	153	41.528	99.673	5.878	1.00	80.24	L	C
ATOMO	4183	CB	SER	L	153	40.488	100.083	6.931	1.00	79.86	L	C
ATOMO	4184	OG	SER	L	153	39.493	100.915	6.336	1.00	80.56	L	O
ATOMO	4185	C	SER	L	153	41.397	98.186	5.554	1.00	80.28	L	C
ATOMO	4186	O	SER	L	153	40.625	97.774	4.697	1.00	79.92	L	O
ATOMO	4187	N	GLU	L	154	42.238	97.415	6.271	1.00	80.81	L	N
ATOMO	4188	CA	GLU	L	154	42.199	95.956	6.217	1.00	82.01	L	C
ATOMO	4189	CB	GLU	L	154	43.431	95.490	7.000	1.00	82.58	L	C
ATOMO	4190	CG	GLU	L	154	43.693	93.986	6.909	1.00	83.88	L	C
ATOMO	4191	CD	GLU	L	154	44.934	93.662	7.710	1.00	85.00	L	C
ATOMO	4192	OE1	GLU	L	154	45.688	94.573	8.011	1.00	86.24	L	O
ATOMO	4193	OE2	GLU	L	154	45.155	92.486	7.989	1.00	85.17	L	O
ATOMO	4194	C	GLU	L	154	40.924	95.410	6.889	1.00	82.30	L	C
ATOMO	4195	O	GLU	L	154	40.455	95.942	7.884	1.00	81.97	L	O
ATOMO	4196	N	ARG	L	155	40.480	94.338	6.220	1.00	82.65	L	N
ATOMO	4197	CA	ARG	L	155	39.515	93.441	6.761	1.00	83.03	L	C
ATOMO	4198	CB	ARG	L	155	38.397	93.264	5.785	1.00	83.37	L	C
ATOMO	4199	CG	ARG	L	155	37.151	93.965	6.190	1.00	84.92	L	C
ATOMO	4200	CD	ARG	L	155	36.200	93.337	7.238	1.00	86.77	L	C
ATOMO	4201	NE	ARG	L	155	34.877	94.025	7.153	1.00	88.25	L	N
ATOMO	4202	CZ	ARG	L	155	33.646	93.437	7.146	1.00	88.42	L	C
ATOMO	4203	NH1	ARG	L	155	33.464	92.126	7.274	1.00	87.36	L	N
ATOMO	4204	NH2	ARG	L	155	32.564	94.209	6.998	1.00	89.76	L	N
ATOMO	4205	C	ARG	L	155	40.140	92.075	7.077	1.00	82.99	L	C
ATOMO	4206	O	ARG	L	155	41.035	91.596	6.322	1.00	83.97	L	O
ATOMO	4207	N	GLN	L	156	39.666	91.490	8.196	1.00	81.99	L	N
ATOMO	4208	CA	GLN	L	156	39.811	90.083	8.655	1.00	80.76	L	C
ATOMO	4209	CB	GLN	L	156	40.770	90.099	9.830	1.00	80.72	L	C
ATOMO	4210	CG	GLN	L	156	42.232	90.228	9.421	1.00	80.80	L	C
ATOMO	4211	CD	GLN	L	156	43.078	90.931	10.427	1.00	82.05	L	C
ATOMO	4212	OE1	GLN	L	156	42.765	92.026	10.846	1.00	82.80	L	O
ATOMO	4213	NE2	GLN	L	156	44.169	90.282	10.857	1.00	82.66	L	N
ATOMO	4214	C	GLN	L	156	38.459	89.288	8.952	1.00	80.18	L	C
ATOMO	4215	O	GLN	L	156	38.334	88.061	8.733	1.00	80.18	L	O
ATOMO	4216	N	ASN	L	157	37.435	90.015	9.341	1.00	78.71	L	N
ATOMO	4217	CA	ASN	L	157	36.109	89.487	9.547	1.00	77.03	L	C
ATOMO	4218	CB	ASN	L	157	35.300	90.700	10.075	1.00	78.97	L	C
ATOMO	4219	CG	ASN	L	157	33.882	90.323	10.592	1.00	80.56	L	C
ATOMO	4220	OD1	ASN	L	157	33.573	89.132	10.652	1.00	82.32	L	O
ATOMO	4221	ND2	ASN	L	157	33.032	91.339	10.954	1.00	81.05	L	N
ATOMO	4222	C	ASN	L	157	35.380	88.982	8.298	1.00	74.78	L	C
ATOMO	4223	O	ASN	L	157	34.967	89.810	7.408	1.00	75.06	L	O
ATOMO	4224	N	GLY	L	158	35.103	87.642	8.222	1.00	71.80	L	N
ATOMO	4225	CA	GLY	L	158	34.183	87.163	7.173	1.00	67.26	L	C
ATOMO	4226	C	GLY	L	158	35.024	86.671	6.129	1.00	65.35	L	C
ATOMO	4227	O	GLY	L	158	34.664	86.616	4.978	1.00	65.64	L	O
ATOMO	4228	N	VAL	L	159	36.203	86.316	6.524	1.00	62.86	L	N
ATOMO	4229	CA	VAL	L	159	37.256	85.881	5.623	1.00	60.58	L	C
ATOMO	4230	CB	VAL	L	159	38.648	86.582	5.757	1.00	60.31	L	C
ATOMO	4231	CG1	VAL	L	159	39.725	85.978	4.872	1.00	57.65	L	C
ATOMO	4232	CG2	VAL	L	159	38.678	88.045	5.438	1.00	59.05	L	C
ATOMO	4233	C	VAL	L	159	37.506	84.421	5.903	1.00	59.71	L	C
ATOMO	4234	O	VAL	L	159	37.844	83.995	7.023	1.00	60.16	L	O
ATOMO	4235	N	LEU	L	160	37.374	83.625	4.863	1.00	57.40	L	N
ATOMO	4236	CA	LEU	L	160	37.557	82.157	4.890	1.00	55.89	L	C
ATOMO	4237	CB	LEU	L	160	36.153	81.523	4.887	1.00	55.19	L	C
ATOMO	4238	CG	LEU	L	160	35.473	81.481	6.386	1.00	55.02	L	C
ATOMO	4239	CD1	LEU	L	160	34.081	80.756	6.541	1.00	52.85	L	C

ÁTOMO	4240	CD2	LEU	L	160	36.367	80.947	7.670	1.00	51.54	L	C
ÁTOMO	4241	C	LEU	L	160	38.467	81.698	3.747	1.00	54.28	L	C
ÁTOMO	4242	O	LEU	L	160	38.156	81.965	2.593	1.00	54.43	L	O
ÁTOMO	4243	N	ASN	L	161	39.609	81.137	4.096	1.00	53.43	L	N
ÁTOMO	4244	CA	ASN	L	161	40.587	80.590	3.258	1.00	53.45	L	C
ÁTOMO	4245	CB	ASN	L	161	41.879	81.051	3.771	1.00	54.82	L	C
ÁTOMO	4246	CG	ASN	L	161	42.029	82.496	3.642	1.00	56.80	L	C
ÁTOMO	4247	OD1	ASN	L	161	41.519	83.084	2.665	1.00	56.52	L	O
ÁTOMO	4248	ND2	ASN	L	161	42.657	83.091	4.610	1.00	55.21	L	N
ÁTOMO	4249	C	ASN	L	161	40.734	79.081	3.176	1.00	53.57	L	C
ÁTOMO	4250	O	ASN	L	161	40.319	78.384	4.043	1.00	53.48	L	O
ÁTOMO	4251	N	SER	L	162	41.253	78.571	2.016	1.00	53.97	L	N
ÁTOMO	4252	CA	SER	L	162	41.350	77.148	1.750	1.00	53.68	L	C
ÁTOMO	4253	CB	SER	L	162	39.961	76.646	1.339	1.00	52.18	L	C
ÁTOMO	4254	OG	SER	L	162	40.034	75.376	0.681	1.00	55.01	L	O
ÁTOMO	4255	C	SER	L	162	42.407	76.915	0.696	1.00	54.09	L	C
ÁTOMO	4256	O	SER	L	162	42.432	77.585	-0.222	1.00	55.23	L	O
ÁTOMO	4257	N	TRP	L	163	43.198	75.906	0.853	1.00	53.72	L	N
ÁTOMO	4258	CA	TRP	L	163	44.378	75.589	0.150	1.00	54.51	L	C
ÁTOMO	4259	CB	TRP	L	163	45.659	75.480	1.064	1.00	57.00	L	C
ÁTOMO	4260	CG	TRP	L	163	46.120	76.734	1.597	1.00	59.37	L	C
ÁTOMO	4261	CD2	TRP	L	163	45.511	77.432	2.684	1.00	59.95	L	C
ÁTOMO	4262	CE2	TRP	L	163	46.278	78.524	2.950	1.00	61.25	L	C
ÁTOMO	4263	CE3	TRP	L	163	44.475	77.121	3.538	1.00	60.81	L	C
ÁTOMO	4264	CD1	TRP	L	163	47.228	77.427	1.237	1.00	60.45	L	C
ÁTOMO	4265	NE1	TRP	L	163	47.313	78.570	2.022	1.00	62.43	L	N
ÁTOMO	4266	CZ2	TRP	L	163	46.021	79.336	3.953	1.00	61.48	L	C
ÁTOMO	4267	CZ3	TRP	L	163	44.208	77.956	4.536	1.00	60.93	L	C
ÁTOMO	4268	CH2	TRP	L	163	44.941	79.117	4.659	1.00	60.59	L	C
ÁTOMO	4269	C	TRP	L	163	44.152	74.125	-0.338	1.00	53.80	L	C
ÁTOMO	4270	O	TRP	L	163	43.755	73.221	0.367	1.00	53.91	L	O
ÁTOMO	4271	N	THR	L	164	44.639	73.884	-1.511	1.00	52.58	L	N
ÁTOMO	4272	CA	THR	L	164	44.610	72.603	-2.117	1.00	51.82	L	C
ÁTOMO	4273	CB	THR	L	164	44.605	72.750	-3.624	1.00	51.25	L	C
ÁTOMO	4274	OG1	THR	L	164	45.805	73.483	-4.091	1.00	51.26	L	O
ÁTOMO	4275	CG2	THR	L	164	43.400	73.462	-4.131	1.00	50.51	L	C
ÁTOMO	4276	C	THR	L	164	45.845	71.880	-1.815	1.00	51.96	L	C
ÁTOMO	4277	O	THR	L	164	46.712	72.419	-1.359	1.00	52.00	L	O
ÁTOMO	4278	N	ASP	L	165	45.971	70.649	-2.208	1.00	53.05	L	N
ÁTOMO	4279	CA	ASP	L	165	47.165	69.837	-1.993	1.00	53.45	L	C
ÁTOMO	4280	CB	ASP	L	165	46.799	68.360	-1.999	1.00	55.52	L	C
ÁTOMO	4281	CG	ASP	L	165	46.252	67.855	-0.542	1.00	60.07	L	C
ÁTOMO	4282	OD1	ASP	L	165	45.044	67.725	-0.411	1.00	61.03	L	O
ÁTOMO	4283	OD2	ASP	L	165	46.984	67.497	0.454	1.00	63.38	L	O
ÁTOMO	4284	C	ASP	L	165	48.009	70.135	-3.161	1.00	52.57	L	C
ÁTOMO	4285	O	ASP	L	165	47.508	70.595	-4.165	1.00	52.07	L	O
ÁTOMO	4286	N	GLN	L	166	49.223	69.688	-3.087	1.00	50.87	L	N
ÁTOMO	4287	CA	GLN	L	166	50.207	69.825	-4.145	1.00	50.45	L	C
ÁTOMO	4288	CB	GLN	L	166	51.473	69.184	-3.640	1.00	49.06	L	C
ÁTOMO	4289	CG	GLN	L	166	52.576	69.588	-4.484	1.00	50.09	L	C
ÁTOMO	4290	CD	GLN	L	166	53.909	69.326	-4.010	1.00	50.81	L	C
ÁTOMO	4291	OE1	GLN	L	166	54.122	68.377	-3.327	1.00	50.74	L	O
ÁTOMO	4292	NE2	GLN	L	166	54.822	70.264	-4.311	1.00	50.10	L	N
ÁTOMO	4293	C	GLN	L	166	49.653	69.162	-5.444	1.00	51.47	L	C
ÁTOMO	4294	O	GLN	L	166	49.199	68.063	-5.439	1.00	50.46	L	O
ÁTOMO	4295	N	ASP	L	167	49.577	69.901	-6.493	1.00	52.11	L	N
ÁTOMO	4296	CA	ASP	L	167	49.257	69.421	-7.799	1.00	54.31	L	C
ÁTOMO	4297	CB	ASP	L	167	49.503	70.542	-8.785	1.00	56.80	L	C
ÁTOMO	4298	CG	ASP	L	167	48.910	70.248	-10.071	1.00	59.47	L	C
ÁTOMO	4299	OD1	ASP	L	167	47.643	70.442	-10.035	1.00	60.73	L	O
ÁTOMO	4300	OD2	ASP	L	167	49.615	69.742	-11.037	1.00	60.31	L	O
ÁTOMO	4301	C	ASP	L	167	50.249	68.275	-8.167	1.00	55.01	L	C
ÁTOMO	4302	O	ASP	L	167	51.401	68.414	-8.028	1.00	55.28	L	O

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ÁTOMO	4303	N	SER	L	168	49.733	67.109	-8.488	1.00	55.89	L	N
ÁTOMO	4304	CA	SER	L	168	50.473	65.926	-9.062	1.00	56.86	L	C
ÁTOMO	4305	CB	SER	L	168	49.570	64.627	-9.158	1.00	56.64	L	C
ÁTOMO	4306	OG	SER	L	168	48.456	65.012	-9.870	1.00	60.89	L	O
ÁTOMO	4307	C	SER	L	168	51.220	66.080	-10.403	1.00	56.36	L	C
ÁTOMO	4308	O	SER	L	168	52.027	65.231	-10.659	1.00	57.56	L	O
ÁTOMO	4309	N	LYS	L	169	51.052	67.158	-11.101	1.00	56.30	L	N
ÁTOMO	4310	CA	LYS	L	169	51.800	67.448	-12.364	1.00	57.59	L	C
ÁTOMO	4311	CB	LYS	L	169	50.798	67.867	-13.469	1.00	59.32	L	C
ÁTOMO	4312	CG	LYS	L	169	49.678	66.849	-13.648	1.00	62.12	L	C
ÁTOMO	4313	CD	LYS	L	169	48.998	66.638	-15.020	1.00	62.52	L	C
ÁTOMO	4314	CE	LYS	L	169	48.225	65.181	-14.949	1.00	64.22	L	C
ÁTOMO	4315	NZ	LYS	L	169	47.154	65.015	-16.011	1.00	63.95	L	N
ÁTOMO	4316	C	LYS	L	169	52.812	68.527	-12.332	1.00	57.97	L	C
ÁTOMO	4317	O	LYS	L	169	53.946	68.201	-12.490	1.00	57.97	L	O
ÁTOMO	4318	N	ASP	L	170	52.446	69.786	-11.987	1.00	57.59	L	N
ÁTOMO	4319	CA	ASP	L	170	53.438	70.868	-11.910	1.00	57.49	L	C
ÁTOMO	4320	CB	ASP	L	170	52.788	72.129	-12.489	1.00	60.30	L	C
ÁTOMO	4321	CG	ASP	L	170	51.710	72.750	-11.564	1.00	62.68	L	C
ÁTOMO	4322	OD1	ASP	L	170	51.622	72.398	-10.321	1.00	65.22	L	O
ÁTOMO	4323	OD2	ASP	L	170	50.896	73.581	-12.024	1.00	62.99	L	O
ÁTOMO	4324	C	ASP	L	170	53.901	71.148	-10.435	1.00	55.90	L	C
ÁTOMO	4325	O	ASP	L	170	54.694	72.062	-10.191	1.00	54.92	L	O
ÁTOMO	4326	N	SER	L	171	53.446	70.339	-9.478	1.00	54.19	L	N
ÁTOMO	4327	CA	SER	L	171	54.038	70.455	-8.108	1.00	53.65	L	C
ÁTOMO	4328	CB	SER	L	171	55.440	70.037	-8.123	1.00	53.17	L	C
ÁTOMO	4329	OG	SER	L	171	55.708	68.799	-8.882	1.00	54.70	L	O
ÁTOMO	4330	C	SER	L	171	53.876	71.866	-7.423	1.00	52.81	L	C
ÁTOMO	4331	O	SER	L	171	54.596	72.185	-6.436	1.00	51.59	L	O
ÁTOMO	4332	N	THR	L	172	52.826	72.583	-7.840	1.00	51.64	L	N
ÁTOMO	4333	CA	THR	L	172	52.507	73.877	-7.362	1.00	51.66	L	C
ÁTOMO	4334	CB	THR	L	172	52.052	74.809	-8.372	1.00	51.61	L	C
ÁTOMO	4335	OG1	THR	L	172	50.823	74.383	-8.882	1.00	50.22	L	O
ÁTOMO	4336	CG2	THR	L	172	52.978	75.076	-9.669	1.00	50.29	L	C
ÁTOMO	4337	C	THR	L	172	51.329	73.740	-6.295	1.00	51.43	L	C
ÁTOMO	4338	O	THR	L	172	50.672	72.688	-6.205	1.00	51.34	L	O
ÁTOMO	4339	N	TYR	L	173	51.051	74.805	-5.587	1.00	51.80	L	N
ÁTOMO	4340	CA	TYR	L	173	49.878	74.930	-4.669	1.00	52.73	L	C
ÁTOMO	4341	CB	TYR	L	173	50.334	75.305	-3.199	1.00	52.74	L	C
ÁTOMO	4342	CG	TYR	L	173	51.209	74.185	-2.606	1.00	52.92	L	C
ÁTOMO	4343	CD1	TYR	L	173	52.517	74.155	-2.818	1.00	53.07	L	C
ÁTOMO	4344	CE1	TYR	L	173	53.329	73.243	-2.256	1.00	54.80	L	C
ÁTOMO	4345	CD2	TYR	L	173	50.703	73.175	-1.858	1.00	53.06	L	C
ÁTOMO	4346	CE2	TYR	L	173	51.564	72.130	-1.375	1.00	54.56	L	C
ÁTOMO	4347	CZ	TYR	L	173	52.827	72.163	-1.586	1.00	55.24	L	C
ÁTOMO	4348	OH	TYR	L	173	53.703	71.126	-1.149	1.00	56.41	L	O
ÁTOMO	4349	C	TYR	L	173	48.987	75.983	-5.133	1.00	52.98	L	C
ÁTOMO	4350	O	TYR	L	173	49.387	76.949	-5.773	1.00	52.51	L	O
ÁTOMO	4351	N	SER	L	174	47.778	75.895	-4.636	1.00	54.50	L	N
ÁTOMO	4352	CA	SER	L	174	46.789	76.955	-4.809	1.00	56.59	L	C
ÁTOMO	4353	CB	SER	L	174	45.898	76.574	-6.002	1.00	56.89	L	C
ÁTOMO	4354	OG	SER	L	174	46.709	76.567	-7.154	1.00	58.41	L	O
ÁTOMO	4355	C	SER	L	174	45.984	77.303	-3.506	1.00	57.56	L	C
ÁTOMO	4356	O	SER	L	174	45.807	76.544	-2.616	1.00	56.52	L	O
ÁTOMO	4357	N	MET	L	175	45.349	78.466	-3.501	1.00	59.39	L	N
ÁTOMO	4358	CA	MET	L	175	44.637	78.939	-2.408	1.00	60.02	L	C
ÁTOMO	4359	CB	MET	L	175	45.564	79.641	-1.563	1.00	61.65	L	C
ÁTOMO	4360	CG	MET	L	175	45.288	81.039	-1.286	1.00	66.41	L	C
ÁTOMO	4361	SD	MET	L	175	45.001	81.374	0.591	1.00	70.49	L	S
ÁTOMO	4362	CE	MET	L	175	46.271	81.681	0.823	1.00	66.50	L	C
ÁTOMO	4363	C	MET	L	175	43.567	79.795	-2.863	1.00	59.29	L	C

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ÁTOMO	4364	O	MET	L	175	43.680	80.541	-3.860	1.00	59.37	L	O
ÁTOMO	4365	N	SER	L	176	42.433	79.630	-2.237	1.00	58.81	L	N
ÁTOMO	4366	CA	SER	L	176	41.309	80.502	-2.491	1.00	59.10	L	C
ÁTOMO	4367	CB	SER	L	176	40.178	79.712	-2.851	1.00	57.88	L	C
ÁTOMO	4368	OG	SER	L	176	39.208	80.594	-2.947	1.00	60.69	L	O
ÁTOMO	4369	C	SER	L	176	40.964	81.310	-1.208	1.00	58.48	L	C
ÁTOMO	4370	O	SER	L	176	41.063	80.739	-0.089	1.00	57.99	L	O
ÁTOMO	4371	N	SER	L	177	40.659	82.616	-1.358	1.00	57.20	L	N
ÁTOMO	4372	CA	SER	L	177	40.193	83.440	-0.268	1.00	57.96	L	C
ÁTOMO	4373	CB	SER	L	177	41.143	84.497	-0.005	1.00	56.59	L	C
ÁTOMO	4374	OG	SER	L	177	40.940	85.208	1.304	1.00	55.06	L	O
ÁTOMO	4375	C	SER	L	177	38.889	84.056	-0.493	1.00	59.67	L	C
ÁTOMO	4376	O	SER	L	177	38.619	84.635	-1.584	1.00	60.67	L	O
ÁTOMO	4377	N	THR	L	178	37.970	83.906	0.453	1.00	60.93	L	N
ÁTOMO	4378	CA	THR	L	178	36.562	84.391	0.311	1.00	61.57	L	C
ÁTOMO	4379	CB	THR	L	178	35.594	83.260	0.267	1.00	60.58	L	C
ÁTOMO	4380	OG1	THR	L	178	35.763	82.541	-0.937	1.00	62.49	L	O
ÁTOMO	4381	CG2	THR	L	178	34.146	83.762	-0.046	1.00	61.14	L	C
ÁTOMO	4382	C	THR	L	178	36.127	85.364	1.530	1.00	62.36	L	C
ÁTOMO	4383	O	THR	L	178	36.172	85.057	2.681	1.00	61.84	L	O
ÁTOMO	4384	N	LEU	L	179	35.820	86.606	1.189	1.00	64.02	L	N
ÁTOMO	4385	CA	LEU	L	179	35.321	87.641	2.073	1.00	65.76	L	C
ÁTOMO	4386	CB	LEU	L	179	36.067	88.942	1.769	1.00	66.01	L	C
ÁTOMO	4387	CG	LEU	L	179	35.527	90.141	2.547	1.00	66.63	L	C
ÁTOMO	4388	CD1	LEU	L	179	35.694	89.990	4.059	1.00	65.10	L	C
ÁTOMO	4389	CD2	LEU	L	179	36.187	91.462	2.151	1.00	66.81	L	C
ÁTOMO	4390	C	LEU	L	179	33.808	87.792	1.872	1.00	66.30	L	C
ÁTOMO	4391	O	LEU	L	179	33.328	88.194	0.820	1.00	66.88	L	O
ÁTOMO	4392	N	THR	L	180	33.078	87.369	2.912	1.00	67.93	L	N
ÁTOMO	4393	CA	THR	L	180	31.622	87.393	2.887	1.00	70.66	L	C
ÁTOMO	4394	CB	THR	L	180	31.126	86.066	3.460	1.00	70.36	L	C
ÁTOMO	4395	OG1	THR	L	180	31.691	84.981	2.712	1.00	71.93	L	O
ÁTOMO	4396	CG2	THR	L	180	29.605	85.996	3.378	1.00	71.29	L	C
ÁTOMO	4397	C	THR	L	180	31.088	88.536	3.748	1.00	71.78	L	C
ÁTOMO	4398	O	THR	L	180	31.298	88.594	4.951	1.00	71.49	L	O
ÁTOMO	4399	N	LEU	L	181	30.412	89.505	3.103	1.00	74.20	L	N
ÁTOMO	4400	CA	LEU	L	181	29.918	90.676	3.846	1.00	76.89	L	C
ÁTOMO	4401	CB	LEU	L	181	30.347	91.926	3.052	1.00	75.96	L	C
ÁTOMO	4402	CG	LEU	L	181	31.845	91.902	2.685	1.00	76.56	L	C
ÁTOMO	4403	CD1	LEU	L	181	32.154	92.713	1.419	1.00	76.50	L	C
ÁTOMO	4404	CD2	LEU	L	181	32.736	92.478	3.791	1.00	75.74	L	C
ÁTOMO	4405	C	LEU	L	181	28.381	90.605	4.016	1.00	78.78	L	C
ÁTOMO	4406	O	LEU	L	181	27.828	89.535	4.105	1.00	80.37	L	O
ÁTOMO	4407	N	THR	L	182	27.735	91.786	4.145	1.00	80.95	L	N
ÁTOMO	4408	CA	THR	L	182	26.289	91.915	3.858	1.00	82.33	L	C
ÁTOMO	4409	CB	THR	L	182	25.662	92.615	5.077	1.00	82.13	L	C
ÁTOMO	4410	OG1	THR	L	182	26.674	93.433	5.728	1.00	81.85	L	O
ÁTOMO	4411	CG2	THR	L	182	25.240	91.514	6.082	1.00	82.04	L	C
ÁTOMO	4412	C	THR	L	182	26.237	92.856	2.668	1.00	83.70	L	C
ÁTOMO	4413	O	THR	L	182	27.002	93.774	2.622	1.00	84.91	L	O
ÁTOMO	4414	N	LYS	L	183	25.406	92.658	1.644	1.00	84.68	L	N
ÁTOMO	4415	CA	LYS	L	183	25:737	93.594	0.562	1.00	86.00	L	C
ÁTOMO	4416	CB	LYS	L	183	25.019	93.197	-0.749	1.00	86.72	L	C
ÁTOMO	4417	CG	LYS	L	183	23.499	93.322	-0.752	1.00	86.54	L	C
ÁTOMO	4418	CD	LYS	L	183	23.065	93.995	-2.073	1.00	87.47	L	C
ÁTOMO	4419	CE	LYS	L	183	21.657	93.785	-2.691	1.00	88.10	L	C
ÁTOMO	4420	NZ	LYS	L	183	21.485	94.811	-3.743	1.00	89.02	L	N
ÁTOMO	4421	C	LYS	L	183	25.602	95.056	1.041	1.00	86.08	L	C
ÁTOMO	4422	O	LYS	L	183	26.173	96.024	0.508	1.00	86.38	L	O
ÁTOMO	4423	N	ASP	L	184	24.871	95.158	2.167	1.00	85.81	L	N
ÁTOMO	4424	CA	ASP	L	184	24.500	96.437	2.721	1.00	85.79	L	C

ÁTOMO	4425	CB	ASP	L	184	23.536	96.160	3.897	1.00	87.59	L	C
ÁTOMO	4426	CG	ASP	L	184	23.420	97.349	4.851	1.00	89.93	L	C
ÁTOMO	4427	OD1	ASP	L	184	23.081	98.440	4.386	1.00	90.99	L	O
ÁTOMO	4428	OD2	ASP	L	184	23.484	97.125	6.059	1.00	91.11	L	O
ÁTOMO	4429	C	ASP	L	184	25.756	97.177	3.133	1.00	84.86	L	C
ÁTOMO	4430	O	ASP	L	184	25.888	98.391	2.998	1.00	85.11	L	O
ÁTOMO	4431	N	GLU	L	185	26.696	96.403	3.685	1.00	83.36	L	N
ÁTOMO	4432	CA	GLU	L	185	28.035	96.852	4.008	1.00	82.20	L	C
ÁTOMO	4433	CB	GLU	L	185	28.562	95.839	5.023	1.00	82.08	L	C
ÁTOMO	4434	CG	GLU	L	185	29.993	95.387	4.788	1.00	82.98	L	C
ÁTOMO	4435	CD	GLU	L	185	30.855	96.050	5.830	1.00	83.92	L	C
ÁTOMO	4436	OE1	GLU	L	185	31.322	95.363	6.730	1.00	85.45	L	O
ÁTOMO	4437	OE2	GLU	L	185	30.886	97.277	5.847	1.00	83.51	L	O
ÁTOMO	4438	C	GLU	L	185	28.942	96.888	2.760	1.00	80.93	L	C
ÁTOMO	4439	O	GLU	L	185	29.750	97.781	2.573	1.00	79.31	L	O
ÁTOMO	4440	N	TYR	L	186	28.794	95.847	1.906	1.00	80.68	L	N
ÁTOMO	4441	CA	TYR	L	186	29.502	95.888	0.600	1.00	81.19	L	C
ÁTOMO	4442	CB	TYR	L	186	28.925	94.799	-0.320	1.00	79.74	L	C
ÁTOMO	4443	CG	TYR	L	186	29.431	94.924	-1.735	1.00	79.67	L	C
ÁTOMO	4444	CD1	TYR	L	186	30.784	95.127	-1.986	1.00	79.51	L	C
ÁTOMO	4445	CE1	TYR	L	186	31.300	94.990	-3.274	1.00	78.75	L	C
ÁTOMO	4446	CD2	TYR	L	186	28.587	94.606	-2.809	1.00	79.13	L	C
ÁTOMO	4447	CE2	TYR	L	186	29.094	94.472	-4.091	1.00	78.31	L	C
ÁTOMO	4448	CZ	TYR	L	186	30.439	94.669	-4.334	1.00	77.87	L	C
ÁTOMO	4449	OH	TYR	L	186	30.923	94.670	-5.639	1.00	77.89	L	O
ÁTOMO	4450	C	TYR	L	186	29.290	97.258	-0.011	1.00	81.44	L	C
ÁTOMO	4451	O	TYR	L	186	30.217	98.023	-0.236	1.00	82.62	L	O
ÁTOMO	4452	N	GLU	L	187	28.004	97.580	-0.242	1.00	81.21	L	N
ÁTOMO	4453	CA	GLU	L	187	27.596	98.768	-0.987	1.00	81.63	L	C
ÁTOMO	4454	CB	GLU	L	187	26.082	98.747	-1.066	1.00	82.22	L	C
ÁTOMO	4455	CG	GLU	L	187	25.567	97.889	-2.208	1.00	83.98	L	C
ÁTOMO	4456	CD	GLU	L	187	24.105	98.198	-2.392	1.00	85.00	L	C
ÁTOMO	4457	OE1	GLU	L	187	23.363	97.305	-2.767	1.00	84.70	L	O
ÁTOMO	4458	OE2	GLU	L	187	23.706	99.319	-2.073	1.00	86.06	L	O
ÁTOMO	4459	C	GLU	L	187	27.993	100.113	-0.356	1.00	80.66	L	C
ÁTOMO	4460	O	GLU	L	187	27.543	101.169	-0.784	1.00	80.69	L	O
ÁTOMO	4461	N	ARG	L	188	28.800	100.085	0.715	1.00	79.90	L	N
ÁTOMO	4462	CA	ARG	L	188	29.105	101.364	1.347	1.00	79.44	L	C
ÁTOMO	4463	CB	ARG	L	188	28.945	101.227	2.864	1.00	80.37	L	C
ÁTOMO	4464	CG	ARG	L	188	27.471	101.291	3.281	1.00	82.71	L	C
ÁTOMO	4465	CD	ARG	L	188	27.286	101.669	4.756	1.00	85.06	L	C
ÁTOMO	4466	NE	ARG	L	188	27.408	100.484	5.612	1.00	85.93	L	N
ÁTOMO	4467	CZ	ARG	L	188	26.281	99.818	5.932	1.00	86.70	L	C
ÁTOMO	4468	NH1	ARG	L	188	25.109	100.226	5.477	1.00	86.66	L	N
ÁTOMO	4469	NH2	ARG	L	188	26.357	98.738	6.716	1.00	86.37	L	N
ÁTOMO	4470	C	ARG	L	188	30.493	101.898	0.973	1.00	78.28	L	C
ÁTOMO	4471	O	ARG	L	188	30.834	103.050	1.208	1.00	79.42	L	0
ÁTOMO	4472	N	HIS	L	189	31.159	100.835	0.491	1.00	76.81	L	N
ÁTOMO	4473	CA	HIS	L	189	32.505	101.005	-0.024	1.00	75.77	L	C
ÁTOMO	4474	CB	HIS	L	189	33.450	100.127	0.793	1.00	76.18	L	C
ÁTOMO	4475	CG	HIS	L	189	33.202	100.344	2.259	1.00	75.83	L	C
ÁTOMO	4476	CD2	HIS	L	189	32.184	99.803	3.049	1.00	75.79	L	C
ÁTOMO	4477	ND1	HIS	L	189	34.056	101.028	3.062	1.00	76.33	L	N
ÁTOMO	4478	CE1	HIS	L	189	33.568	100.890	4.306	1.00	76.23	L	C
ÁTOMO	4479	NE2	HIS	L	189	32.447	100.160	4.329	1.00	76.30	L	N
ÁTOMO	4480	C	HIS	L	189	32.567	100.595	-1.488	1.00	74.26	L	C
ÁTOMO	4481	O	HIS	L	189	31.866	99.713	-1.942	1.00	73.32	L	0

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ATOMO 4482 N   ASN L 190    33.495 101.241 -2.203 1.00 73.22 L N
ATOMO 4483 CA  ASN L 190    33.511 101.062 -3.644 1.00 72.28 L C
ATOMO 4484 CB  ASN L 190    33.497 102.448 -4.284 1.00 72.27 L C
ATOMO 4485 CG  ASN L 190    33.359 102.314 -5.777 1.00 72.22 L C
ATOMO 4486 OD1 ASN L 190    32.582 101.514 -6.291 1.00 72.45 L O
ATOMO 4487 ND2 ASN L 190    34.149 103.133 -6.492 1.00 72.27 L N
ATOMO 4488 C   ASN L 190    34.749 100.292 -4.083 1.00 71.86 L C
ATOMO 4489 O   ASN L 190    34.733 99.519  -5.032 1.00 71.82 L O
ATOMO 4490 N   SER L 191    35.886 100.556 -3.430 1.00 70.48 L N
ATOMO 4491 CA  SER L 191    37.231 99.902  -3.668 1.00 69.30 L C
ATOMO 4492 CB  SER L 191    38.292 100.968 -3.415 1.00 68.08 L C
ATOMO 4493 OG  SER L 191    39.567 100.442 -3.635 1.00 70.37 L O
ATOMO 4494 C   SER L 191    37.561 98.593  -2.756 1.00 68.67 L C
ATOMO 4495 O   SER L 191    37.611 98.630  -1.534 1.00 68.74 L O
ATOMO 4496 N   TYR L 192    37.721 97.469  -3.426 1.00 67.14 L N
ATOMO 4497 CA  TYR L 192    37.945 96.133  -2.841 1.00 66.18 L C
ATOMO 4498 CB  TYR L 192    36.809 95.191  -3.337 1.00 64.98 L C
ATOMO 4499 CG  TYR L 192    35.577 95.517  -2.560 1.00 65.06 L C
ATOMO 4500 CD1 TYR L 192    34.690 96.498  -3.018 1.00 65.76 L C
ATOMO 4501 CE1 TYR L 192    33.532 96.850  -2.250 1.00 65.52 L C
ATOMO 4502 CD2 TYR L 192    35.350 95.015  -1.281 1.00 64.44 L C
ATOMO 4503 CE2 TYR L 192    34.192 95.424  -0.452 1.00 64.83 L C
ATOMO 4504 CZ  TYR L 192    33.299 96.346  -0.960 1.00 65.25 L C
ATOMO 4505 OH  TYR L 192    32.176 96.797  -0.300 1.00 65.93 L O
ATOMO 4506 C   TYR L 192    39.239 95.609  -3.407 1.00 65.75 L C
ATOMO 4507 O   TYR L 192    39.405 95.510  -4.664 1.00 65.70 L O
ATOMO 4508 N   THR L 193    40.182 95.367  -2.565 1.00 64.25 L N
ATOMO 4509 CA  THR L 193    41.444 94.833  -2.979 1.00 63.31 L C
ATOMO 4510 CB  THR L 193    42.465 95.898  -2.780 1.00 63.11 L C
ATOMO 4511 OG1 THR L 193    42.317 96.829  -3.840 1.00 63.06 L O
ATOMO 4512 CG2 THR L 193    43.903 95.300  -2.971 1.00 62.69 L C
ATOMO 4513 C   THR L 193    41.943 93.531  -2.280 1..00 63.36 L C
ATOMO 4514 O   THR L 193    41.741 93.343  -1.075 1.00 61.67 L O
ATOMO 4515 N   CYS L 194    42.588 92.686  -3.059 1.00 63.76 L N
ATOMO 4516 CA  CYS L 194    43.220 91.404  -2.686 1.00 64.62 L C
ATOMO 4517 C   CYS L 194    44.750 91.501  -2.683 1.00 64.56 L C
ATOMO 4518 O   CYS L 194    45.367 91.725  -3.717 1.00 64.27 L O
ATOMO 4519 CB  CYS L 194    42.754 90.303  -3.656 1.00 65.84 L C
ATOMO 4520 SG  CYS L 194    43.253 88.662  -3.082 1.00 69.27 L S
ATOMO 4521 N   GLU L 195    45.475 91.101  -1.654 1.00 65.49 L N
ATOMO 4522 CA  GLU L 195    46.940 91.294  -1.514 1.00 66.37 L C
ATOMO 4523 CB  GLU L 195    47.313 92.457  -0.485 1.00 67.92 L C
ATOMO 4524 CG  GLU L 195    47.266 93.904  -1.015 1.00 70.14 L C
ATOMO 4525 CD  GLU L 195    48.021 94.916  -0.147 1.00 72.46 L C
ATOMO 4526 OE1 GLU L 195    48.876 94.560  0.691  1.00 74.03 L O
ATOMO 4527 OE2 GLU L 195    47.713 96.098  -0.294 1.00 74.44 L O
ATOMO 4528 C   GLU L 195    47.676 90.065  -1.028 1.00 66.00 L C
ATOMO 4529 O   GLU L 195    47.530 89.604  0.172  1.00 66.57 L O
ATOMO 4530 N   ALA L 196    48.631 89.611  -1.891 1.00 65.28 L N
ATOMO 4531 CA  ALA L 196    49.251 88.309  -1.699 1.00 64.12 L C
ATOMO 4532 CB  ALA L 196    49.146 87.584  -2.984 1.00 63.44 L C
ATOMO 4533 C   ALA L 196    50.644 88.502  -1.252 1.00 64.13 L C
ATOMO 4534 O   ALA L 196    51.394 89.096  -1.899 1.00 63.42 L O
ATOMO 4535 N   THR L 197    51.008 88.031  -0.064 1.00 64.82 L N
ATOMO 4536 CA  THR L 197    52.389 88.024  0.252  1.00 64.09 L C
ATOMO 4537 CB  THR L 197    52.652 88.665  1.576  1.00 63.72 L C
ATOMO 4538 OG1 THR L 197    52.336 90.047  1.434  1.00 64.06 L O
ATOMO 4539 CG2 THR L 197    54.091 88.660  1.879  1.00 63.15 L C
ATOMO 4540 C   THR L 197    53.024 86.702  0.070  1.00 64.02 L C
ATOMO 4541 O   THR L 197    52.745 85.779  0.788  1.00 64.77 L O
ATOMO 4542 N   HIS L 198    53.912 86.657  -0.910 1.00 62.84 L N
ATOMO 4543 CA  HIS L 198    54.764 85.477  -1.189 1.00 61.69 L C
ATOMO 4544 CB  HIS L 198    54.209 84.821  -2.512 1.00 59.77 L C
ATOMO 4545 CG  HIS L 198    54.600 83.394  -2.645 1.00 59.10 L C
ATOMO 4546 CD2 HIS L 198    54.012 82.226  -2.233 1.00 58.46 L C
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ATOMO	4547	ND1	HIS	L	198	55.734	83.035	-3.297	1.00	59.08	L	N
ATOMO	4548	CE1	HIS	L	198	55.823	81.697	-3.331	1.00	57.61	L	C
ATOMO	4549	NE2	HIS	L	198	54.821	81.190	-2.634	1.00	57.62	L	N
ATOMO	4550	C	HIS	L	198	56.291	85.717	-1.302	1.00	61.03	L	C
ATOMO	4551	O	HIS	L	198	56.747	86.720	-1.785	1.00	60.88	L	O
ATOMO	4552	N	LYS	L	199	57.048	84.693	-1.083	1.00	60.86	L	N
ATOMO	4553	CA	LYS	L	199	58.586	84.708	-1.161	1.00	61.48	L	C
ATOMO	4554	CB	LYS	L	199	59.152	83.326	-0.608	1.00	62.55	L	C
ATOMO	4555	CG	LYS	L	199	60.165	82.579	-1.411	1.00	65.31	L	C
ATOMO	4556	CD	LYS	L	199	60.614	81.343	-0.633	1.00	67.98	L	C
ATOMO	4557	CE	LYS	L	199	62.157	81.071	-0.720	1.00	68.98	L	C
ATOMO	4558	NZ	LYS	L	199	62.459	79.587	-1.216	1.00	72.58	L	N
ATOMO	4559	C	LYS	L	199	59.215	85.037	-2.499	1.00	60.71	L	C
ATOMO	4560	O	LYS	L	199	60.316	85.439	-2.483	1.00	59.15	L	O
ATOMO	4561	N	THR	L	200	58.534	84.770	-3.606	1.00	61.34	L	N
ATOMO	4562	CA	THR	L	200	58.889	85.151	-4.867	1.00	62.41	L	C
ATOMO	4563	CB	THR	L	200	57.823	84.599	-5.955	1.00	61.98	L	C
ATOMO	4564	OG1	THR	L	200	56.492	84.775	-5.459	1.00	61.48	L	O
ATOMO	4565	CG2	THR	L	200	57.965	83.103	-6.030	1.00	61.96	L	C
ATOMO	4566	C	THR	L	200	58.937	86.656	-5.003	1.00	63.55	L	C
ATOMO	4567	O	THR	L	200	59.287	87.166	-6.033	1.00	63.63	L	O
ATOMO	4568	N	SER	L	201	58.552	87.427	-4.027	1.00	65.08	L	N
ATOMO	4569	CA	SER	L	201	58.503	88.878	-4.257	1.00	66.77	L	C
ATOMO	4570	CB	SER	L	201	57.270	89.284	-5.062	1.00	66.67	L	C
ATOMO	4571	OG	SER	L	201	57.317	90.617	-5.277	1.00	69.81	L	O
ATOMO	4572	C	SER	L	201	58.532	89.678	-2.932	1.00	67.89	L	C
ATOMO	4573	O	SER	L	201	57.824	89.379	-2.026	1.00	67.63	L	O
ATOMO	4574	N	THR	L	202	59.389	90.679	-2.903	1.00	68.99	L	N
ATOMO	4575	CA	THR	L	202	59.579	91.609	-1.731	1.00	70.40	L	C
ATOMO	4576	CB	THR	L	202	60.789	92.514	-1.942	1.00	70.21	L	C
ATOMO	4577	OG1	THR	L	202	61.001	92.700	-3.363	1.00	71.61	L	O
ATOMO	4578	CG2	THR	L	202	62.051	91.770	-1.502	1.00	69.32	L	C
ATOMO	4579	C	THR	L	202	58.384	92.492	-1.483	1.00	71.81	L	C
ATOMO	4580	O	THR	L	202	58.249	93.078	-0.433	1.00	73.06	L	O
ATOMO	4581	N	SER	L	203	57.509	92.620	-2.445	1.00	72.08	L	N
ATOMO	4582	CA	SER	L	203	56.351	93.397	-2.139	1.00	72.51	L	C
ATOMO	4583	CB	SER	L	203	56.536	94.788	-2.770	1.00	72.61	L	C
ATOMO	4584	OG	SER	L	203	56.840	94.698	-4.173	1.00	73.89	L	O
ATOMO	4585	C	SER	L	203	55.109	92.574	-2.642	1.00	73.15	L	C
ATOMO	4586	O	SER	L	203	55.060	91.850	-3.730	1.00	73.17	L	O
ATOMO	4587	N	PRO	L	204	54.020	92.809	-1.971	1.00	73.52	L	N
ATOMO	4588	CD	PRO	L	204	53.822	93.786	-0.890	1.00	73.68	L	C
ATOMO	4589	CA	PRO	L	204	52.764	92.157	-2.391	1.00	73.37	L	C
ATOMO	4590	CB	PRO	L	204	51.760	92.891	-1.538	1.00	72.83	L	C
ATOMO	4591	CG	PRO	L	204	52.466	94.171	-1.377	1.00	73.10	L	C
ATOMO	4592	C	PRO	L	204	52.319	92.276	-3.827	1.00	73.82	L	C
ATOMO	4593	O	PRO	L	204	52.550	93.254	-4.516	1.00	73.65	L	O
ATOMO	4594	N	ILE	L	205	51.530	91.345	-4.270	1.00	74.15	L	N
ATOMO	4595	CA	ILE	L	205	50.947	91.530	-5.602	1.00	75.21	L	C
ATOMO	4596	CB	ILE	L	205	51.131	90.297	-6.391	1.00	75.73	L	C
ATOMO	4597	CG2	ILE	L	205	50.847	89.201	-5.470	1.00	77.35	L	C
ATOMO	4598	CG1	ILE	L	205	50.088	90.139	-7.496	1.00	75.81	L	C
ATOMO	4599	CD1	ILE	L	205	50.328	88.977	-8.411	1.00	76.36	L	C
ATOMO	4600	C	ILE	L	205	49.492	91.850	-5.266	1.00	75.53	L	C
ATOMO	4601	O	ILE	L	205	49.112	91.672	-4.177	1.00	76.26	L	O
ATOMO	4602	N	VAL	L	206	48.715	92.491	-6.123	1.00	75.08	L	N
ATOMO	4603	CA	VAL	L	206	47.513	93.122	-5.663	1.00	74.71	L	C
ATOMO	4604	CB	VAL	L	206	47.697	94.634	-5.144	1.00	74.40	L	C
ATOMO	4605	CG1	VAL	L	206	48.952	94.812	-4.282	1.00	73.30	L	C
ATOMO	4606	CG2	VAL	L	206	47.699	95.650	-6.301	1.00	74.38	L	C
ATOMO	4607	C	VAL	L	206	46.644	93.211	-6.846	1.00	74.88	L	C
ATOMO	4608	O	VAL	L	206	47.071	93.738	-7.786	1.00	75.87	L	O
ATOMO	4609	N	LYS	L	207	45.442	92.674	-6.741	1.00	74.58	L	N
ATOMO	4610	CA	LYS	L	207	44.292	92.812	-7.622	1.00	74.35	L	C
ATOMO	4611	CB	LYS	L	207	43.878	91.401	-8.024	1.00	74.50	L	C
ATOMO	4612	CG	LYS	L	207	44.996	90.736	-8.978	1.00	75.19	L	C

ÁTOMO	4613	CD	LYS	L	207	45.030	91.289	-10.379	1.00	76.53	L C
ÁTOMO	4614	CE	LYS	L	207	46.336	90.847	-11.268	1.00	77.77	L C
ÁTOMO	4615	NZ	LYS	L	207	45.764	90.117	-12.435	1.00	79.30	L N
ÁTOMO	4616	C	LYS	L	207	43.096	93.543	-6.906	1.00	74.45	L C
ÁTOMO	4617	O	LYS	L	207	42.827	93.341	-5.709	1.00	73.76	L O
ÁTOMO	4618	N	SER	L	208	42.406	94.355	-7.676	1.00	74.34	L N
ÁTOMO	4619	CA	SER	L	208	41.413	95.213	-7.140	1.00	74.67	L C
ÁTOMO	4620	CB	SER	L	208	41.922	96.636	-6.816	1.00	74.26	L C
ÁTOMO	4621	OG	SER	L	208	43.125	96.638	-6.088	1.00	75.04	L O
ÁTOMO	4622	C	SER	L	208	40.278	95.350	-8.117	1.00	75.12	L C
ÁTOMO	4623	O	SER	L	208	40.328	94.990	-9.309	1.00	75.07	L O
ÁTOMO	4624	N	PHE	L	209	39.225	95.930	-7.600	1.00	75.89	L N
ÁTOMO	4625	CA	PHE	L	209	38.202	96.369	-8.515	1.00	76.68	L C
ÁTOMO	4626	CB	PHE	L	209	37.392	95.232	-8.946	1.00	75.71	L C
ÁTOMO	4627	CG	PHE	L	209	36.442	94.760	-7.934	1.00	76.21	L C
ÁTOMO	4628	CD1	PHE	L	209	35.288	95.396	-7.710	1.00	76.27	L C
ÁTOMO	4629	CD2	PHE	L	209	36.650	93.568	-7.240	1.00	76.95	L C
ÁTOMO	4630	CE1	PHE	L	209	34.321	94.896	-6.848	1.00	76.62	L C
ÁTOMO	4631	CE2	PHE	L	209	35.650	93.051	-6.385	1.00	76.70	L C
ÁTOMO	4632	CZ	PHE	L	209	34.499	93.760	-6.215	1.00	77.30	L C
ÁTOMO	4633	C	PHE	L	209	37.343	97.346	-7.803	1.00	77.21	L C
ÁTOMO	4634	O	PHE	L	209	37.380	97.403	-6.577	1.00	76.60	L O
ÁTOMO	4635	N	ASN	L	210	36.554	98.038	-8.608	1.00	78.77	L N
ÁTOMO	4636	CA	ASN	L	210	35.666	99.132	-8.158	1.00	81.02	L C
ÁTOMO	4637	CB	ASN	L	210	36.053	100.417	-8.857	1.00	80.71	L C
ÁTOMO	4638	CG	ASN	L	210	37.168	101.090	-8.158	1.00	81.36	L C
ÁTOMO	4639	OD1	ASN	L	210	37.285	100.936	-6.984	1.00	81.95	L O
ÁTOMO	4640	ND2	ASN	L	210	38.007	101.840	-8.855	1.00	82.01	L N
ÁTOMO	4641	C	ASN	L	210	34.272	98.732	-8.427	1.00	82.34	L C
ÁTOMO	4642	O	ASN	L	210	33.977	98.373	-9.515	1.00	82.13	L O
ÁTOMO	4643	N	ARG	L	211	33.422	98.708	-7.429	1.00	84.67	L N
ÁTOMO	4644	CA	ARG	L	211	32.091	98.267	-7.731	1.00	87.93	L C
ÁTOMO	4645	CB	ARG	L	211	31.303	97.737	-6.518	1.00	88.21	L C
ÁTOMO	4646	CG	ARG	L	211	31.279	98.473	-5.284	1.00	88.74	L C
ÁTOMO	4647	CD	ARG	L	211	29.975	98.235	-4.336	1.00	89.20	L C
ÁTOMO	4648	NE	ARG	L	211	29.663	99.546	-3.767	1.00	89.87	L N
ÁTOMO	4649	CZ	ARG	L	211	28.653	100.289	-4.194	1.00	89.88	L C
ÁTOMO	4650	NH1	ARG	L	211	27.680	99.841	-4.984	1.00	90.54	L N
ÁTOMO	4651	NH2	ARG	L	211	28.576	101.484	-3.765	1.00	90.60	L N
ÁTOMO	4652	C	ARG	L	211	31.240	99.210	-8.590	1.00	90.23	L C
ÁTOMO	4653	O	ARG	L	211	30.298	98.696	-9.159	1.00	90.59	L O
ÁTOMO	4654	N	ASN	L	212	31.609	100.529	-8.707	1.00	92.92	L N
ÁTOMO	4655	CA	ASN	L	212	31.022	101.615	-9.578	1.00	95.30	L C
ÁTOMO	4656	CB	ASN	L	212	31.287	103.060	-8.990	1.00	95.62	L C
ÁTOMO	4657	CG	ASN	L	212	32.727	103.685	-9.302	1.00	95.98	L C
ÁTOMO	4658	OD1	ASN	L	212	33.706	102.985	-9.365	1.00	96.57	L O
ÁTOMO	4659	ND2	ASN	L	212	32.810	105.038	-9.430	1.00	95.86	L N
ÁTOMO	4660	C	ASN	L	212	31.451	101.449	-11.064	1.00	97.04	L C
ÁTOMO	4661	O	ASN	L	212	30.838	102.032	-11.978	1.00	97.84	L O
ÁTOMO	4662	N	GLU	L	213	32.523	100.647	-11.235	1.00	98.65	L N
ÁTOMO	4663	CA	GLU	L	213	32.879	99.815	-12.407	1.00	100.44	L C
ÁTOMO	4664	CB	GLU	L	213	31.669	99.384	-13.335	1.00	101.37	L C
ÁTOMO	4665	CG	GLU	L	213	30.708	98.317	-12.739	1.00	103.86	L C
ÁTOMO	4666	CD	GLU	L	213	29.293	98.287	-13.389	1.00	105.73	L C
ÁTOMO	4667	OE1	GLU	L	213	29.148	98.663	-14.613	1.00	106.92	L O
ÁTOMO	4668	OE2	GLU	L	213	28.311	97.881	-12.696	1.00	106.19	L O
ÁTOMO	4669	C	GLU	L	213	34.052	100.491	-13.158	1.00	101.34	L C
ÁTOMO	4670	O	GLU	L	213	35.005	101.056	-12.555	1.00	101.24	L O

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ATOMO	4671	OXT	GLU	L	213	34.010	100.451	-14.407	1.00	102.50	L	O
ATOMO	4672	CB	ALA	H	1	39.945	47.058	-15.210	1.00	57.59	H	C
ATOMO	4673	C	ALA	H	1	39.240	45.311	-13.489	1.00	56.41	H	C
ATOMO	4674	O	ALA	H	1	38.014	45.283	-13.595	1.00	56.03	H	O
ATOMO	4675	N	ALA	H	1	39.647	44.577	-15.546	1.00	58.24	H	N
ATOMO	4676	CA	ALA	H	1	40.167	45.578	-14.643	1.00	57.67	H	C
ATOMO	4677	N	VAL	H	2	39.812	45.198	-12.287	1.00	55.97	H	N
ATOMO	4678	CA	VAL	H	2	38.982	45.072	-11.168	1.00	55.80	H	C
ATOMO	4679	CB	VAL	H	2	39.847	44.750	-9.932	1.00	55.16	H	C
ATOMO	4680	CG1	VAL	H	2	38.900	44.730	-8.646	1.00	53.68	H	C
ATOMO	4681	CG2	VAL	H	2	40.562	43.232	-10.087	1.00	54.67	H	C
ATOMO	4682	C	VAL	H	2	38.208	46.290	-10.890	1.00	55.96	H	C
ATOMO	4683	O	VAL	H	2	38.753	47.332	-10.978	1.00	56.13	H	O
ATOMO	4684	N	LYS	H	3	36.979	46.190	-10.426	1.00	55.21	H	N
ATOMO	4685	CA	LYS	H	3	36.214	47.342	-10.003	1.00	54.60	H	C
ATOMO	4686	CB	LYS	H	3	35.313	47.862	-11.046	1.00	56.93	H	C
ATOMO	4687	CG	LYS	H	3	35.974	48.256	-12.313	1.00	61.09	H	C
ATOMO	4688	CD	LYS	H	3	34.988	48.698	-13.499	1.00	64.16	H	C
ATOMO	4689	CE	LYS	H	3	35.878	48.939	-14.898	1.00	66.47	H	C
ATOMO	4690	NZ	LYS	H	3	35.296	48.156	-16.087	1.00	69.30	H	N
ATOMO	4691	C	LYS	H	3	35.355	47.206	-8.701	1.00	52.89	H	C
ATOMO	4692	O	LYS	H	3	34.716	46.223	-8.522	1.00	53.61	H.	O
ATOMO	4693	N	LEU	H	4	35.271	48.273	-7.924	1.00	50.65	H	N
ATOMO	4694	CA	LEU	H	4	34.437	48.255	-6.746	1.00	49.52	H	C
ATOMO	4695	CB	LEU	H	4	35.301	48.009	-5.477	1.00	46.67	H	C
ATOMO	4696	CG	LEU	H	4	36.237	46.878	-5.386	1.00	47.93	H	C
ATOMO	4697	CD1	LEU	H	4	37.068	46.748	-3.950	1.00	44.50	H	C
ATOMO	4698	CD2	LEU	H	4	35.265	45.686	-5.471	1.00	45.14	H	C
ATOMO	4699	C	LEU	H	4	33.768	49.504	-6.651	1.00	49.57	H	C
ATOMO	4700	O	LEU	H	4	34.443	50.510	-6.706	1.00	49.93	H	O
ATOMO	4701	N	VAL	H	5	32.466	49.494	-6.457	1.00	48.58	H	N
ATOMO	4702	CA	VAL	H	5	31.680	50.754	-6.411	1.00	48.51	H	C
ATOMO	4703	CB	VAL	H	5	30.892	50.955	-7.693	1.00	48.35	H	C
ATOMO	4704	CG1	VAL	H	5	30.080	52.257	-7.619	1.00	47.31	H	C
ATOMO	4705	CG2	VAL	H	5	31.859	50.919	-8.930	1.00	46.39	H	C
ATOMO	4706	C	VAL	H	5	30.742	50.824	-5.191	1.00	48.91	H	C
ATOMO	4707	O	VAL	H	5	29.722	50.175	-5.154	1.00	49.48	H	O
ATOMO	4708	N	GLU	H	6	31.058	51.695	-4.269	1.00	49.77	H	N
ATOMO	4709	CA	GLU	H	6	30.241	51.844	-3.056	1.00	50.87	H	C
ATOMO	4710	CB	GLU	H	6	31.120	52.542	-2.043	1.00	50.52	H	C
ATOMO	4711	CG	GLU	H	6	32.410	51.720	-1.614	1.00	52.97	H	C
ATOMO	4712	CD	GLU	H	6	33.634	52.070	-2.427	1.00	54.93	H	C
ATOMO	4713	OE1	GLU	H	6	33.454	52.594	-3.591	1.00	56.24	H	O
ATOMO	4714	OE2	GLU	H	6	34.778	51.772	-1.950	1.00	53.24	H	O
ATOMO	4715	C	GLU	H	6	29.005	52.674	-3.334	1.00	51.92	H	C
ATOMO	4716	O	GLU	H	6	29.006	53.587	-4.190	1.00	53.20	H	O
ATOMO	4717	N	SER	H	7	27.949	52.409	-2.617	1.00	52.28	H	N
ATOMO	4718	CA	SER	H	7	26.784	53.228	-2.628	1.00	52.15	H	C
ATOMO	4719	CB	SER	H	7	25.870	52.850	-3.832	1.00	51.14	H	C
ATOMO	4720	OG	SER	H	7	25.351	51.648	-3.702	1.00	52.31	H	O
ATOMO	4721	C	SER	H	7	26.041	53.138	-1.335	1.00	52.74	H	C
ATOMO	4722	O	SER	H	7	26.407	52.356	-0.512	1.00	52.35	H	O
ATOMO	4723	N	GLY	H	8	24.926	53.908	-1.176	1.00	53.91	H	N
ATOMO	4724	CA	GLY	H	8	24.156	53.922	0.064	1.00	53.35	H	C
ATOMO	4725	C	GLY	H	8	24.571	54.962	1.106	1.00	54.52	H	C
ATOMO	4726	O	GLY	H	8	23.988	55.136	2.312	1.00	54.64	H	O
ATOMO	4727	N	GLY	H	9	25.549	55.685	0.755	1.00	54.06	H	N
ATOMO	4728	CA	GLY	H	9	26.023	56.605	1.797	1.00	55.85	H	C
ATOMO	4729	C	GLY	H	9	25.094	57.863	1.926	1.00	56.97	H	C
ATOMO	4730	O	GLY	H	9	24.395	58.190	0.985	1.00	58.21	H	O
ATOMO	4731	N	GLY	H	10	25.096	58.589	3.054	1.00	56.93	H	N
ATOMO	4732	CA	GLY	H	10	24.492	59.891	3.099	1.00	56.30	H	C
ATOMO	4733	C	GLY	H	10	24.458	60.322	4.539	1.00	57.22	H	C
ATOMO	4734	O	GLY	H	10	25.269	59.948	5.401	1.00	56.37	H	O

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ÁTOMO	4735	N	LEU	H	11	23.491	61.158	4.829	1.00	57.88	H	N
ÁTOMO	4736	CA	LEU	H	11	23.324	61.737	6.172	1.00	58.33	H	C
ÁTOMO	4737	CB	LEU	H	11	22.670	63.095	5.971	1.00	57.28	H	C
ÁTOMO	4738	CG	LEU	H	11	22.217	63.874	7.215	1.00	57.41	H	C
ÁTOMO	4739	CD1	LEU	H	11	23.399	64.040	8.105	1.00	56.59	H	C
ÁTOMO	4740	CD2	LEU	H	11	21.634	65.218	6.674	1.00	55.33	H	C
ÁTOMO	4741	C	LEU	H	11	22.422	60.912	7.021	1.00	58.53	H	C
ÁTOMO	4742	O	LEU	H	11	21.366	60.532	6.603	1.00	59.22	H	O
ÁTOMO	4743	N	VAL	H	12	22.718	60.668	8.244	1.00	58.84	H	N
ÁTOMO	4744	CA	VAL	H	12	21.708	59.921	8.963	1.00	59.95	H	C
ÁTOMO	4745	CB	VAL	H	12	22.077	58.487	8.929	1.00	60.75	H	C
ÁTOMO	4746	CG1	VAL	H	12	23.568	58.246	9.447	1.00	60.56	H	C
ÁTOMO	4747	CG2	VAL	H	12	21.161	57.695	9.903	1.00	60.62	H	C
ÁTOMO	4748	C	VAL	H	12	21.774	60.473	10.353	1.00	60.49	H	C
ÁTOMO	4749	O	VAL	H	12	22.697	61.158	10.649	1.00	60.65	H	O
ÁTOMO	4750	N	LYS	H	13	20.834	60.195	11.250	1.00	60.42	H	N
ÁTOMO	4751	CA	LYS	H	13	20.867	60.756	12.646	1.00	59.46	H	C
ÁTOMO	4752	CB	LYS	H	13	19.419	61.034	13.130	1.00	60.98	H	C
ÁTOMO	4753	CG	LYS	H	13	18.779	62.229	12.311	1.00	63.17	H	C
ÁTOMO	4754	CD	LYS	H	13	17.763	63.064	13.154	1.00	65.62	H	C
ÁTOMO	4755	CE	LYS	H	13	17.036	64.154	12.229	1.00	68.26	H	C
ÁTOMO	4756	NZ	LYS	H	13	16.291	63.244	11.290	1.00	71.07	H	N
ÁTOMO	4757	C	LYS	H	13	21.481	59.888	13.673	1.00	58.33	H	C
ÁTOMO	4758	O	LYS	H	13	21.441	58.724	13.546	1.00	58.31	H	O
ÁTOMO	4759	N	PRO	H	14	22.042	60.411	14.752	1.00	57.07	H	N
ÁTOMO	4760	CD	PRO	H	14	22.318	61.869	14.891	1.00	55.75	H	C
ÁTOMO	4761	CA	PRO	H	14	22.626	59.548	15.802	1.00	56.28	H	C
ÁTOMO	4762	CB	PRO	H	14	22.995	60.555	16.947	1.00	56.53	H	C
ÁTOMO	4763	CG	PRO	H	14	23.122	61.877	16.191	1.00	56.41	H	C
ÁTOMO	4764	C	PRO	H	14	21.666	58.517	16.305	1.00	55.92	H	C
ÁTOMO	4765	O	PRO	H	14	20.570	58.933	16.728	1.00	56.88	H	O
ÁTOMO	4766	N	GLY	H	15	21.993	57.257	16.354	1.00	55.44	H	N
ÁTOMO	4767	CA	GLY	H	15	20.994	56.241	16.724	1.00	54.88	H	C
ÁTOMO	4768	C	GLY	H	15	20.484	55.495	15.465	1.00	54.20	H	C
ÁTOMO	4769	O	GLY	H	15	19.892	54.476	15.544	1.00	54.74	H	O
ÁTOMO	4770	N	GLY	H	16	20.699	56.038	14.263	1.00	53.14	H	N
ÁTOMO	4771	CA	GLY	H	16	19.951	55.543	13.101	1.00	51.86	H	C
ÁTOMO	4772	C	GLY	H	16	20.773	54.494	12.482	1.00	52.00	H	C
ÁTOMO	4773	O	GLY	H	16	21.729	53.970	13.145	1.00	51.59	H	O
ÁTOMO	4774	N	SER	H	17	20.297	54.042	11.307	1.00	53.11	H	N
ÁTOMO	4775	CA	SER	H	17	20.774	52.845	10.687	1.00	54.45	H	C
ÁTOMO	4776	CB	SER	H	17	19.762	51.729	10.752	1.00	54.70	H	C
ÁTOMO	4777	OG	SER	H	17	20.092	51.111	12.020	1.00	59.63	H	O
ÁTOMO	4778	C	SER	H	17	20.920	53.091	9.213	1.00	54.40	H	C
ÁTOMO	4779	O	SER	H	17	20.163	53.853	8.685	1.00	53.44	H	O
ÁTOMO	4780	N	LEU	H	18	21.938	52.505	8.621	1.00	54.00	H	N
ÁTOMO	4781	CA	LEU	H	18	22.072	52.699	7.169	1.00	54.73	H	C
ÁTOMO	4782	CB	LEU	H	18	22.948	53.926	6.955	1.00	54.70	H	C
ÁTOMO	4783	CG	LEU	H	18	23.142	54.458	5.572	1.00	56.43	H	C
ÁTOMO	4784	CD1	LEU	H	18	21.896	55.216	5.078	1.00	56.27	H	C
ÁTOMO	4785	CD2	LEU	H	18	24.212	55.423	5.601	1.00	56.44	H	C
ÁTOMO	4786	C	LEU	H	18	22.774	51.412	6.623	1.00	55.38	H	C
ÁTOMO	4787	O	LEU	H	18	23.624	50.717	7.374	1.00	56.00	H	O
ÁTOMO	4788	N	LYS	H	19	22.509	51.140	5.353	1.00	53.52	H	N
ÁTOMO	4789	CA	LYS	H	19	23.140	50.022	4.821	1.00	53.55	H	C
ÁTOMO	4790	CB	LYS	H	19	22.060	48.990	4.581	1.00	56.27	H	C
ÁTOMO	4791	CG	LYS	H	19	22.453	47.670	3.743	1.00	58.99	H	C
ÁTOMO	4792	CD	LYS	H	19	21.232	46.615	3.828	1.00	61.93	H	C
ÁTOMO	4793	CE	LYS	H	19	21.663	45.114	4.237	1.00	63.64	H	C

ÁTOMO	4794	NZ	LYS H	19	20.771	44.171	5.226	1.00	65.48	H	N
ÁTOMO	4795	C	LYS H	19	23.871	50.392	3.511	1.00	52.35	H	C
ÁTOMO	4796	O	LYS H	19	23.232	50.883	2.474	1.00	50.72	H	O
ÁTOMO	4797	N	LEU H	20	25.196	50.059	3.504	1.00	50.39	H	N
ÁTOMO	4798	CA	LEU H	20	25.957	50.334	2.258	1.00	49.11	H	C
ÁTOMO	4799	CB	LEU H	20	27.361	50.733	2.749	1.00	47.89	H	C
ÁTOMO	4800	CG	LEU H	20	27.439	51.809	3.840	1.00	47.60	H	C
ÁTOMO	4801	CD1	LEU H	20	28.979	52.103	4.114	1.00	43.14	H	C
ÁTOMO	4802	CD2	LEU H	20	26.682	53.096	3.407	1.00	43.08	H	C
ÁTOMO	4803	C	LEU H	20	26.058	49.092	1.342	1.00	48.76	H	C
ÁTOMO	4804	O	LEU H	20	25.999	47.926	1.817	1.00	48.50	H	O
ÁTOMO	4805	N	SER H	21	26.446	49.281	0.097	1.00	47.53	H	N
ÁTOMO	4806	CA	SER H	21	26.578	48.199	-0.700	1.00	49.80	H	C
ÁTOMO	4807	CB	SER H	21	25.230	47.952	-1.286	1.00	49.00	H	C
ÁTOMO	4808	OG	SER H	21	24.931	48.983	-2.110	1.00	53.28	H	O
ÁTOMO	4809	C	SER H	21	27.727	48.498	-1.651	1.00	50.26	H	C
ÁTOMO	4810	O	SER H	21	28.307	49.642	-1.707	1.00	51.26	H	O
ÁTOMO	4811	N	CYS H	22	28.244	47.418	-2.228	1.00	50.61	H	N
ÁTOMO	4812	CA	CYS H	22	29.412	47.531	-3.065	1.00	50.77	H	C
ÁTOMO	4813	C	CYS H	22	29.346	46.503	-4.180	1.00	50.55	H	C
ÁTOMO	4814	O	CYS H	22	29.357	45.322	-3.900	1.00	50.98	H	O
ÁTOMO	4815	CB	CYS H	22	30.761	47.352	-2.238	1.00	51.71	H	C
ÁTOMO	4816	SG	CYS H	22	32.242	47.175	-3.280	1.00	54.13	H	S
ÁTOMO	4817	N	ALA H	23	29.415	46.993	-5.373	1.00	49.89	H	N
ÁTOMO	4818	CA	ALA H	23	29.302	46.234	-6.577	1.00	49.03	H	C
ÁTOMO	4819	CB	ALA H	23	28.614	47.108	-7.567	1.00	47.99	H	C
ÁTOMO	4820	C	ALA H	23	30.604	45.935	-7.103	1.00	49.69	H	C
ÁTOMO	4821	O	ALA H	23	31.277	46.787	-7.604	1.00	51.43	H	O
ÁTOMO	4822	N	ALA H	24	30.911	44.676	-7.200	1.00	49.14	H	N
ÁTOMO	4823	CA	ALA H	24	32.207	44.285	-7.697	1.00	48.47	H	C
ÁTOMO	4824	CB	ALA H	24	32.731	43.140	-6.924	1.00	47.00	H	C
ÁTOMO	4825	C	ALA H	24	32.143	43.718	-9.135	1.00	48.34	H	C
ÁTOMO	4826	O	ALA H	24	31.351	42.919	-9.301	1.00	49.22	H	O
ÁTOMO	4827	N	SER H	25	33.302	43.766	-9.816	1.00	46.94	H	N
ÁTOMO	4828	CA	SER H	25	33.438	43.147	-11.075	1.00	45.88	H	C
ÁTOMO	4829	CB	SER H	25	32.645	44.055	-12.109	1.00	45.88	H	C
ÁTOMO	4830	OG	SER H	25	33.287	45.345	-12.458	1.00	45.34	H	O
ÁTOMO	4831	C	SER H	25	34.889	43.038	-11.463	1.00	45.41	H	C
ÁTOMO	4832	O	SER H	25	35.874	43.637	-10.835	1.00	43.95	H	O
ÁTOMO	4833	N	GLY H	26	35.133	42.204	-12.453	1.00	45.42	H	N
ÁTOMO	4834	CA	GLY H	26	36.533	42.085	-12.885	1.00	44.78	H	C
ÁTOMO	4835	C	GLY H	26	37.332	41.020	-12.147	1.00	45.64	H	C
ÁTOMO	4836	O	GLY H	26	38.405	40.867	-12.358	1.00	47.57	H	O
ÁTOMO	4837	N	PHE H	27	36.715	40.205	-11.356	1.00	45.58	H	N
ÁTOMO	4838	CA	PHE H	27	37.357	39.136	-10.671	1.00	46.08	H	C
ÁTOMO	4839	CB	PHE H	27	38.317	39.699	-9.644	1.00	43.87	H	C
ÁTOMO	4840	CG	PHE H	27	37.579	40.292	-8.414	1.00	43.88	H	C
ÁTOMO	4841	CD1	PHE H	27	37.326	39.512	-7.245	1.00	40.50	H	C
ÁTOMO	4842	CD2	PHE H	27	37.119	41.532	-8.474	1.00	42.67	H	C
ÁTOMO	4843	CE1	PHE H	27	36.667	40.059	-6.196	1.00	42.28	H	C
ÁTOMO	4844	CE2	PHE H	27	36.366	42.142	-7.299	1.00	44.46	H	C
ÁTOMO	4845	CZ	PHE H	27	36.134	41.425	-6.272	1.00	42.65	H	C
ÁTOMO	4846	C	PHE H	27	36.336	38.072	-10.076	1.00	47.08	H	C
ÁTOMO	4847	O	PHE H	27	35.185	38.307	-9.844	1.00	49.16	H	O
ÁTOMO	4848	N	THR H	28	36.748	36.820	-9.877	1.00	48.35	H	N
ÁTOMO	4849	CA	THR H	28	35.813	35.893	-9.410	1.00	50.12	H	C
ÁTOMO	4850	CB	THR H	28	36.202	34.434	-9.933	1.00	52.14	H	C

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ATOMO	4851	OG1	THR H	28	35.403	33.362	-9.243	1.00	56.55	H	O
ATOMO	4852	CG2	THR H	28	37.402	34.188	-9.641	1.00	53.83	H	C
ATOMO	4853	C	THR H	28	35.514	36.102	-7.818	1.00	49.21	H	C
ATOMO	4854	O	THR H	28	36.115	35.568	-6.977	1.00	49.79	H	O
ATOMO	4855	N	PHE H	29	34.524	36.874	-7.593	1.00	47.72	H	N
ATOMO	4856	CA	PHE H	29	34.149	37.342	-6.286	1.00	47.97	H	C
ATOMO	4857	CB	PHE H	29	32.787	38.132	-6.445	1.00	47.14	H	C
ATOMO	4858	CG	PHE H	29	32.172	38.691	-5.220	1.00	49.20	H	C
ATOMO	4859	CD1	PHE H	29	32.709	39.718	-4.625	1.00	48.92	H	C
ATOMO	4860	CD2	PHE H	29	31.027	38.144	-4.646	1.00	50.32	H	C
ATOMO	4861	CE1	PHE H	29	32.193	40.292	-3.574	1.00	49.53	H	C
ATOMO	4862	CE2	PHE H	29	30.519	38.683	-3.472	1.00	51.60	H	C
ATOMO	4863	CZ	PHE H	29	31.069	39.875	-3.036	1.00	50.36	H	C
ATOMO	4864	C	PHE H	29	34.066	36.255	-5.324	1.00	48.25	H	C
ATOMO	4865	O	PHE H	29	34.650	36.405	-4.308	1.00	47.87	H	O
ATOMO	4866	N	ILE H	30	33.416	35.161	-5.640	1.00	48.05	H	N
ATOMO	4867	CA	ILE H	30	33.240	34.134	-4.657	1.00	48.95	H	C
ATOMO	4868	CB	ILE H	30	32.439	32.942	-5.181	1.00	51.25	H	C
ATOMO	4869	CG2	ILE H	30	31.085	33.450	-5.918	1.00	51.50	H	C
ATOMO	4870	CG1	ILE H	30	33.251	32.358	-6.337	1.00	53.67	H	C
ATOMO	4871	CD1	ILE H	30	32.533	31.000	-6.629	1.00	56.77	H	C
ATOMO	4872	C	ILE H	30	34.510	33.607	-4.067	1.00	47.10	H	C
ATOMO	4873	O	ILE H	30	34.426	33.078	-2.972	1.00	46.72	H	O
ATOMO	4874	N	SER H	31	35.639	33.649	-4.781	1.00	45.74	H	N
ATOMO	4875	CA	SER H	31	36.879	33.125	-4.259	1.00	46.34	H	C
ATOMO	4876	CB	SER H	31	37.827	32.857	-5.438	1.00	45.27	H	C
ATOMO	4877	OG	SER H	31	37.519	31.569	-6.102	1.00	47.34	H	O
ATOMO	4878	C	SER H	31	37.608	34.041	-3.249	1.00	47.42	H	C
ATOMO	4879	O	SER H	31	38.528	33.582	-2.645	1.00	48.51	H	O
ATOMO	4880	N	TYR H	32	37.258	35.349	-3.166	1.00	46.52	H	N
ATOMO	4881	CA	TYR H	32	37.975	36.322	-2.352	1.00	45.49	H	C
ATOMO	4882	CB	TYR H	32	38.213	37.568	-3.172	1.00	45.29	H	C
ATOMO	4883	CG	TYR H	32	39.251	37.376	-4.152	1.00	47.58	H	C
ATOMO	4884	CD1	TYR H	32	38.922	36.939	-5.514	1.00	46.72	H	C
ATOMO	4885	CE1	TYR H	32	39.847	36.713	-6.359	1.00	47.22	H	C
ATOMO	4886	CD2	TYR H	32	40.590	37.593	-3.856	1.00	47.39	H	C
ATOMO	4887	CE2	TYR H	32	41.530	37.455	-4.906	1.00	49.71	H	C
ATOMO	4888	CZ	TYR H	32	41.051	36.937	-6.187	1.00	49.39	H	C
ATOMO	4889	OH	TYR H	32	41.962	36.800	-7.206	1.00	50.64	H	O
ATOMO	4890	C	TYR H	32	37.216	36.750	-1.113	1.00	44.53	H	C
ATOMO	4891	O	TYR H	32	35.949	36.960	-1.073	1.00	43.26	H	O
ATOMO	4892	N	ALA H	33	37.935	36.900	-0.101	1.00	42.87	H	N
ATOMO	4893	CA	ALA H	33	37.400	37.574	1.210	1.00	42.63	H	C
ATOMO	4894	CB	ALA H	33	38.336	37.424	2.247	1.00	40.21	H	C
ATOMO	4895	C	ALA H	33	37.328	39.121	0.848	1.00	41.98	H	C
ATOMO	4896	O	ALA H	33	38.029	39.563	-0.026	1.00	41.34	H	O
ATOMO	4897	N	MET H	34	36.474	39.866	1.481	1.00	41.20	H	N
ATOMO	4898	CA	MET H	34	36.186	41.225	1.222	1.00	40.63	H	C
ATOMO	4899	CB	MET H	34	34.869	41.292	0.611	1.00	39.10	H	C
ATOMO	4900	CG	MET H	34	34.696	40.629	-0.882	1.00	39.77	H	C
ATOMO	4901	SD	MET H	34	35.784	41.463	-1.994	1.00	45.71	H	S
ATOMO	4902	CE	MET H	34	34.886	42.982	-1.964	1.00	37.92	H	C
ATOMO	4903	C	MET H	34	36.064	41.971	2.628	1.00	41.20	H	C
ATOMO	4904	O	MET H	34	35.792	41.357	3.624	1.00	41.85	H	O
ATOMO	4905	N	SER H	35	36.215	43.285	2.610	1.00	41.11	H	N
ATOMO	4906	CA	SER H	35	36.200	44.080	3.829	1.00	42.00	H	C
ATOMO	4907	CB	SER H	35	37.670	44.280	4.124	1.00	43.05	H	C
ATOMO	4908	OG	SER H	35	38.364	43.036	4.454	1.00	47.79	H	O
ATOMO	4909	C	SER H	35	35.695	45.455	3.673	1.00	41.71	H	C
ATOMO	4910	O	SER H	35	35.720	46.062	2.568	1.00	41.47	H	O

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ÁTOMO	4911	N	TRP	H	36	35.278	46.065	4.802	1.00	42.04	H	N
ÁTOMO	4912	CA	TRP	H	36	35.092	47.569	4.846	1.00	40.91	H	C
ÁTOMO	4913	CB	TRP	H	36	33.732	47.837	5.384	1.00	40.20	H	C
ÁTOMO	4914	CG	TRP	H	36	32.757	47.463	4.576	1.00	43.62	H	C
ÁTOMO	4915	CD2	TRP	H	36	32.191	48.141	3.476	1.00	43.80	H	C
ÁTOMO	4916	CE2	TRP	H	36	31.210	47.285	2.887	1.00	45.57	H	C
ÁTOMO	4917	CE3	TRP	H	36	32.313	49.388	2.967	1.00	44.89	H	C
ÁTOMO	4918	CD1	TRP	H	36	32.184	46.211	4.564	1.00	44.58	H	C
ÁTOMO	4919	NE1	TRP	H	36	31.199	46.152	3.621	1.00	44.93	H	N
ÁTOMO	4920	CZ2	TRP	H	36	30.343	47.669	1.841	1.00	46.06	H	C
ÁTOMO	4921	CZ3	TRP	H	36	31.538	49.746	1.866	1.00	47.87	H	C
ÁTOMO	4922	CH2	TRP	H	36	30.542	48.889	1.300	1.00	47.68	H	C
ÁTOMO	4923	C	TRP	H	36	36.263	48.226	5.552	1.00	41.16	H	C
ÁTOMO	4924	O	TRP	H	36	36.743	47.750	6.656	1.00	41.65	H	O
ÁTOMO	4925	N	VAL	H	37	36.709	49.362	5.049	1.00	41.54	H	N
ÁTOMO	4926	CA	VAL	H	37	37.677	50.161	5.817	1.00	41.72	H	C
ÁTOMO	4927	CB	VAL	H	37	39.036	50.109	5.144	1.00	42.37	H	C
ÁTOMO	4928	CG1	VAL	H	37	40.071	51.091	5.876	1.00	39.85	H	C
ÁTOMO	4929	CG2	VAL	H	37	39.663	48.676	5.106	1.00	38.47	H	C
ÁTOMO	4930	C	VAL	H	37	37.199	51.595	5.722	1.00	43.01	H	C
ÁTOMO	4931	O	VAL	H	37	36.995	52.089.	4.630	1.00	42.66	H	O
ÁTOMO	4932	N	ARG	H	38	37.228	52.304	6.833	1.00	44.32	H	N
ÁTOMO	4933	CA	ARG	H	38	36.769	53.755	6.812	1.00	44.72	H	C
ÁTOMO	4934	CB	ARG	H	38	35.669	53.856	7.939	1.00	45.50	H	C
ÁTOMO	4935	CG	ARG	H	38	36.084	53.725	9.186	1.00	45.79	H	C
ÁTOMO	4936	CD	ARG	H	38	34.803	53.785	10.025	1.00	45.99	H	C
ÁTOMO	4937	NE	ARG	H	38	35.170	53.623	11.372	1.00	45.09	H	N
ÁTOMO	4938	CZ	ARG	H	38	34.231	53.606	12.437	1.00	47.24	H	C
ÁTOMO	4939	NH1	ARG	H	38	32.926	53.654	12.247	1.00	45.96	H	N
ÁTOMO	4940	NH2	ARG	H	38	34.638	53.487	13.675	1.00	45.71	H	N
ÁTOMO	4941	C	ARG	H	38	37.859	54.745	7.186	1.00	45.98	H	C
ÁTOMO	4942	O	ARG	H	38	38.903	54.408	7.622	1.00	45.24	H	O
ÁTOMO	4943	N	GLN	H	39	37.661	55.979	6.830	1.00	47.04	H	N
ÁTOMO	4944	CA	GLN	H	39	38.673	56.948	6.926	1.00	47.06	H	C
ÁTOMO	4945	CB	GLN	H	39	39.308	57.430	5.570	1.00	46.43	H	C
ÁTOMO	4946	CG	GLN	H	39	40.465	58.409	5.662	1.00	47.08	H	C
ÁTOMO	4947	CD	GLN	H	39	41.330	58.532	4.518	1.00	47.35	H	C
ÁTOMO	4948	OE1	GLN	H	39	40.835	58.575	3.341	1.00	45.83	H	O
ÁTOMO	4949	NE2	GLN	H	39	42.761	58.615	4.792	1.00	45.77	H	N
ÁTOMO	4950	C	GLN	H	39	37.956	58.115	7.601	1.00	47.56	H	C
ÁTOMO	4951	O	GLN	H	39	37.114	58.739	6.919	1.00	47.30	H	O
ÁTOMO	4952	N	THR	H	40	38.514	58.593	8.660	1.00	48.24	H	N
ÁTOMO	4953	CA	THR	H	40	37.841	59.686	9.468	1.00	50.73	H	C
ÁTOMO	4954	CB	THR	H	40	38.301	59.722	10.851	1.00	50.76	H	C
ÁTOMO	4955	OG1	THR	H	40	39.707	60.030	10.772	1.00	52.70	H	O
ÁTOMO	4956	CG2	THR	H	40	38.318	58.470	11.429	1.00	51.20	H	C
ÁTOMO	4957	C	THR	H	40	38.246	60.985	8.902	1.00	51.36	H	C
ÁTOMO	4958	O	THR	H	40	39.059	61.013	8.038	1.00	51.10	H	O
ÁTOMO	4959	N	PRO	H	41	37.564	62.061	9.296	1.00	52.21	H	N
ÁTOMO	4960	CD	PRO	H	41	36.295	62.115	10.073	1.00	52.24	H	C
ÁTOMO	4961	CA	PRO	H	41	37.890	63.382	8.700	1.00	51.01	H	C
ÁTOMO	4962	CB	PRO	H	41	36.823	64.321	9.370	1.00	51.14	H	C
ÁTOMO	4963	CG	PRO	H	41	35.639	63.438	9.554	1.00	50.96	H	C
ÁTOMO	4964	C	PRO	H	41	39.303	63.781	9.025	1.00	51.27	H	C
ÁTOMO	4965	O	PRO	H	41	39.846	64.518	8.265	1.00	51.34	H	O
ÁTOMO	4966	N	GLU	H	41	.39.838	63.399	10.184	1.00	50.91	H	N
ÁTOMO	4967	CA	GLU	H	42	41.210	63.665	10.527	1.00	52.30	H	C
ÁTOMO	4968	CB	GLU	H	42	41.532	63.339	12.031	1.00	55.58	H	C

ÁTOMO	4969	CG	GLU	H	42	40.596	64.039	13.179	1.00	59.66	H	C
ÁTOMO	4970	CD	GLU	H	42	39.079	63.416	13.163	1.60	62.60	H	C
ÁTOMO	4971	OE1	GLU	H	42	38.707	62.251	13.758	1.00	63.38	H	O
ÁTOMO	4972	OE2	GLU	H	42	38.252	63.979	12.323	1.00	64.12	H	O
ÁTOMO	4973	C	GLU	H	42	42.073	62.709	9.628	1.00	51.81	H	C
ÁTOMO	4974	O	GLU	H	42	43.240	62.735	9.742	1.00	52.65	H	O
ÁTOMO	4975	N	ALA	H	43	41.527	61.853	8.757	1.00	49.44	H	N
ÁTOMO	4976	CA	ALA	H	43	42.347	61.082	7.706	1.00	48.63	H	C
ÁTOMO	4977	CB	ALA	H	43	43.348	61.928	6.815	1.00	47.37	H	C
ÁTOMO	4978	C	ALA	H	43	43.018	59.830	8.352	1.00	48.33	H	C
ÁTOMO	4979	O	ALA	H	43	43.689	59.136	7.699	1.00	48.60	H	O
ÁTOMO	4980	N	ARG	H	44	42.570	59.389	9.572	1.00	47.49	H	N
ÁTOMO	4981	CA	ARG	H	44	42.889	58.032	9.839	1.00	48.90	H	C
ÁTOMO	4982	CB	ARG	H	44	42.938	57.885	11.296	1.00	52.09	H	C
ÁTOMO	4983	CG	ARG	H	44	44.321	58.813	11.780	1.00	59.28	H	C
ÁTOMO	4984	CD	ARG	H	44	44.773	58.725	13.290	1.00	62.11	H	C
ÁTOMO	4985	NE	ARG	H	44	45.692	57.571	13.544	1.00	64.30	H	N
ÁTOMO	4986	CZ	ARG	H	44	46.987	57.605	13.921	1.00	63.28	H	C
ÁTOMO	4987	NH1	ARG	H	44	47.689	58.789	14.061	1.00	63.13	H	N
ÁTOMO	4988	NH2	ARG	H	44	47.593	56.430	14.154	1.00	63.84	H	N
ÁTOMO	4989	C	ARG	H	44	42.073	56.938	9.226	1.00	47.27	H	C
ÁTOMO	4990	O	ARG	H	44	40.898	56.964	9.436	1.00	47.74	H	O
ÁTOMO	4991	N	LEU	H	45	42.750	55.849	8.788	1.00	44.62	H	N
ÁTOMO	4992	CA	LEU	H	45	42.201	54.621	8.474	1.00	43.21	H	C
ÁTOMO	4993	CB	LEU	H	45	42.979	53.927	7.427	1.00	41.37	H	C
ÁTOMO	4994	CG	LEU	H	45	43.190	54.958	6.126	1.00	41.08	H	C
ÁTOMO	4995	CD1	LEU	H	45	44.344	54.453	5.241	1.00	39.01	H	C
ÁTOMO	4996	CD2	LEU	H	45	42.020	54.769	5.365	1.00	41.28	H	C
ÁTOMO	4997	C	LEU	H	45	41.890	53.725	9.680	1.00	44.41	H	C
ÁTOMO	4998	O	LEU	H	45	42.784	53.297	10.506	1.00	42.31	H	O
ÁTOMO	4999	N	GLU	H	46	40.653	53.243	9.616	1.00	44.35	H	N
ÁTOMO	5000	CA	GLU	H	46	40.405	52.104	10.572	1.00	46.78	H	C
ÁTOMO	5001	CB	GLU	H	46	39.654	52.733	11.793	1.00	48.43	H	C
ÁTOMO	5002	CG	GLU	H	46	38.953	51.754	12.667	1.00	52.62	H	C
ÁTOMO	5003	CD	GLU	H	46	37.945	52.324	13.608	1.00	56.08	H	C
ÁTOMO	5004	OE1	GLU	H	46	37.478	53.515	13.325	1.00	57.26	H	O
ÁTOMO	5005	OE2	GLU	H	46	37.788	51.555	14.649	1.00	55.19	H	O
ÁTOMO	5006	C	GLU	H	46	39.651	50.915	9.850	1.00	46.71	H	C
ÁTOMO	5007	O	GLU	H	46	38.667	51.058	9.176	1.00	46.44	H	O
ÁTOMO	5008	N	TRP	H	47	40.175	49.729	9.965	1.00	46.18	H	N
ÁTOMO	5009	CA	TRP	H	47	39.466	48.450	9.572	1.00	46.26	H	C
ÁTOMO	5010	CB	TRP	H	47	40.340	47.263	9.895	1.00	45.60	H	C
ÁTOMO	5011	CG	TRP	H	47	39.694	45.993	9.682	1.00	49.04	H	C
ÁTOMO	5012	CD2	TRP	H	47	39.356	45.041	10.644	1.00	49.15	H	C
ÁTOMO	5013	CE2	TRP	H	47	38.668	44.028	9.983	1.00	48.82	H	C
ÁTOMO	5014	CE3	TRP	H	47	39.556	44.952	12.113	1.00	49.50	H	C
ÁTOMO	5015	CD1	TRP	H	47	39.199	45.536	8.452	1.00	47.78	H	C
ÁTOMO	5016	NE1	TRP	H	47	38.624	44.341	8.636	1.00	48.17	H	N
ÁTOMO	5017	CZ2	TRP	H	47	38.166	42.946	10.626	1.00	49.29	H	C
ÁTOMO	5018	CZ3	TRP	H	47	39.025	43.894	12.766	1.00	50.46	H	C
ÁTOMO	5019	CH2	TRP	H	47	38.534	42.753	11.972	1.00	49.96	H	C
ÁTOMO	5020	C	TRP	H	47	38.178	48.290	10.228	1.00	45.51	H	C
ÁTOMO	5021	O	TRP	H	47	38.089	48.496	11.428	1.00	46.18	H	O
ÁTOMO	5022	N	VAL	H	48	37.138	48.043	9.468	1.00	45.21	H	N
ÁTOMO	5023	CA	VAL	H	48	35.778	48.054	9.961	1.00	46.94	H	C
ÁTOMO	5024	CB	VAL	H	48	34.909	49.056	9.097	1.00	46.39	H	C
ÁTOMO	5025	CG1	VAL	H	48	33.524	48.931	9.243	1.00	46.00	H	C
ÁTOMO	5026	CG2	VAL	H	48	35.317	50.434	9.519	1.00	46.55	H	C
ÁTOMO	5027	C	VAL	H	48	35.150	46.594	9.919	1.00	47.74	H	C

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ATOMO 5028 O VAL H 48 34.364 46.264 10.742 1.00 48.01 H O
ATOMO 5029 N ALA H 49 35.430 45.788 8.912 1.00 47.88 H N
ATOMO 5030 CA ALA H 49 34.934 44.439 9.013 1.00 47.12 H C
ATOMO 5031 CB ALA H 49 33.393 44.443 9.047 1.00 47.13 H C
ATOMO 5032 C ALA H 49 35.447 43.653 7.835 1.00 46.52 H C
ATOMO 5033 O ALA H 49 35.923 44.124 6.750 1.00 46.49 H O
ATOMO 5034 N SER H 50 35.416 42.374 8.072 1.00 45.97 H N
ATOMO 5035 CA SER H 50 35.824 41.422 6.964 1.00 45.97 H C
ATOMO 5036 CB SER H 50 37.267 40.907 7.351 1.00 45.68 H C
ATOMO 5037 OG SER H 50 38.110 41.991 7.172 1.00 46.90 H O
ATOMO 5038 C SER H 50 34.842 40.237 6.905 1.00 45.95 H C
ATOMO 5039 O SER H 50 34.224 39.839 7.964 1.00 46.23 H O
ATOMO 5040 N ILE H 51 34.740 39.574 5.746 1.00 44.35 H N
ATOMO 5041 CA ILE H 51 34.061 38.321 5.575 1.00 43.41 H C
ATOMO 5042 CB ILE H 51 32.647 38.545 4.897 1.00 42.37 H C
ATOMO 5043 CG2 ILE H 51 32.703 39.310 3.471 1.00 40.16 H C
ATOMO 5044 CG1 ILE H 51 31.811 37.239 4.824 1.00 41.84 H C
ATOMO 5045 CD1 ILE H 51 30.240 37.456 4.666 1.00 41.59 H C
ATOMO 5046 C ILE H 51 34.881 37.441 4.640 1.00 44.63 H C
ATOMO 5047 O ILE H 51 35.403 38.002 3.596 1.00 44.42 H O
ATOMO 5048 N SER H 52 35.147 36.126 5.074 1.00 44.47 H N
ATOMO 5049 CA SER H 52 35.938 35.254 4.277 1.00 47.09 H C
ATOMO 5050 CB SER H 52 36.368 34.010 5.034 1.00 46.84 H C
ATOMO 5051 OG SER H 52 35.231 33.304 5.485 1.00 47.85 H O
ATOMO 5052 C SER H 52 35.147 34.674 3.019 1.00 47.49 H C
ATOMO 5053 O SER H 52 33.926 34.918 2.875 1.00 45.99 H O
ATOMO 5054 N SER H 53 35.865 33.884 2.201 1.00 49.05 H N
ATOMO 5055 CA SER H 53 35.209 33.375 0.894 1.00 49.67 H C
ATOMO 5056 CB SER H 53 36.168 32.723 -0.041 1.00 49.00 H C
ATOMO 5057 OG SER H 53 36.770 31.610 0.686 1.00 50.01 H O
ATOMO 5058 C SER H 53 34.185 32.332 1.448 1.00 50.73 H C
ATOMO 5059 O SER H 53 33.092 32.140 0.880 1.00 51.07 H O
ATOMO 5060 N GLY H 54 34.403 31.912 2.647 1.00 51.03 H N
ATOMO 5061 CA GLY H 54 33.540 30.925 3.220 1.00 52.23 H C
ATOMO 5062 C GLY H 54 32.454 31.432 4.040 1.00 53.84 H C
ATOMO 5063 O GLY H 54 31.664 30.683 4.614 1.00 54.98 H O
ATOMO 5064 N GLY H 55 32.326 32.712 4.172 1.00 53.92 H N
ATOMO 5065 CA GLY H 55 31.281 33.279 5.125 1.00 55.93 H C
ATOMO 5066 C GLY H 55 31.653 33.592 6.603 1.00 56.90 H C
ATOMO 5067 O GLY H 55 30.829 34.053 7.401 1.00 59.08 H O
ATOMO 5068 N ASN H 56 32.901 33.390 7.042 1.00 56.97 H N
ATOMO 5069 CA ASN H 56 33.241 33.813 8.376 1.00 56.87 H C
ATOMO 5070 CB ASN H 56 34.641 33.311 8.686 1.00 58.57 H C
ATOMO 5071 CG ASN H 56 34.848 31.707 8.674 1.00 60.80 H C
ATOMO 5072 OD1 ASN H 56 35.948 31.265 8.259 1.00 62.91 H O
ATOMO 5073 ND2 ASN H 56 33.932 30.944 9.202 1.00 58.88 H N
ATOMO 5074 C ASN H 56 33.328 35.349 8.488 1.00 56.17 H C
ATOMO 5075 O ASN H 56 33.756 35.993 7.536 1.00 56.06 H O
ATOMO 5076 N THR H 57 32.945 35.940 9.651 1.00 55.51 H N
ATOMO 5077 CA THR H 57 32.817 37.327 9.817 1.00 53.59 H C
ATOMO 5078 CB THR H 57 31.419 37.838 10.158 1.00 53.48 H C
ATOMO 5079 OG1 THR H 57 30.924 37.625 11.595 1.00 52.48 H O
ATOMO 5080 CG2 THR H 57 30.394 37.337 9.249 1.00 51.25 H C
ATOMO 5081 C THR H 57 33.855 37.740 10.893 1.00 53.43 H C
ATOMO 5082 O THR H 57 34.062 37.063 11.883 1.00 52.41 H O
ATOMO 5083 N TYR H 58 34.453 38.887 10.713 1.00 52.67 H N
ATOMO 5084 CA TYR H 58 35.398 39.398 11.668 1.00 52.76 H C
ATOMO 5085 CB TYR H 58 36.725 39.194 11.145 1.00 52.49 H C
ATOMO 5086 CG TYR H 58 37.059 37.850 10.726 1.00 53.52 H C
ATOMO 5087 CD1 TYR H 58 36.701 37.420 9.504 1.00 53.54 H C
ATOMO 5088 CE1 TYR H 58 37.013 36.257 9.099 1.00 53.11 H C
ATOMO 5089 CD2 TYR H 58 37.868 37.014 11.533 1.00 53.39 H C
ATOMO 5090 CE2 TYR H 58 38.229 35.741 11.070 1.00 54.38 H C
ATOMO 5091 CZ TYR H 58 37.748 35.425 9.790 1.00 54.35 H C
ATOMO 5092 OH TYR H 58 38.058 34.221 9.344 1.00 54.85 H O
ATOMO 5093 C TYR H 58 35.244 40.926 11.935 1.00 53.04 H C

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ÁTOMO	5094	O	TYR	H	58	35.056	41.671	10.975	1.00	53.44	H	O
ÁTOMO	5095	N	TYR	H	59	35.267	41.325	13.182	1.00	52.51	H	N
ÁTOMO	5096	CA	TYR	H	59	34.990	42.745	13.523	1.00	52.95	H	C
ÁTOMO	5097	CB	TYR	H	59	33.538	43.018	14.083	1.00	52.90	H	C
ÁTOMO	5098	CG	TYR	H	59	32.418	42.555	13.081	1.00	55.00	H	C
ÁTOMO	5099	CD1	TYR	H	59	31.791	41.335	13.231	1.00	54.89	H	C
ÁTOMO	5100	CE1	TYR	H	59	30.867	40.833	12.405	1.00	54.80	H	C
ÁTOMO	5101	CD2	TYR	H	59	31.997	43.323	12.072	1.00	54.68	H	C
ÁTOMO	5102	CE2	TYR	H	59	31.049	42.822	11.166	1.00	55.81	H	C
ÁTOMO	5103	CZ	TYR	H	59	30.494	41.541	11.353	1.00	55.91	H	C
ÁTOMO	5104	OH	TYR	H	59	29.437	41.021	10.587	1.00	56.18	H	O
ÁTOMO	5105	C	TYR	H	59	35.873	43.285	14.582	1.00	52.14	H	C
ÁTOMO	5106	O	TYR	H	59	36.170	42.528	15.501	1.00	52.61	H	O
ÁTOMO	5107	N	PRO	H	60	36.301	44.578	14.540	1.00	51.10	H	N
ÁTOMO	5108	CD	PRO	H	60	35.948	45.627	13.547	1.00	50.32	H	C
ÁTOMO	5109	CA	PRO	H	60	36.979	45.185	15.733	1.00	51.29	H	C
ÁTOMO	5110	CB	PRO	H	60	37.619	46.481	15.123	1.00	50.61	H	C
ÁTOMO	5111	CG	PRO	H	60	36.550	46.883	14.122	1.00	49.50	H	C
ÁTOMO	5112	C	PRO	H	60	35.908	45.651	16.792	1.00	52.20	H	C
ÁTOMO	5113	O	PRO	H	60	34.753	45.912	16.527	1.00	51.38	H	O
ÁTOMO	5114	N	ASP	H	61	36.342	45.820	18.000	1.00	53.47	H	N
ÁTOMO	5115	CA	ASP	H	61	35.405	46.214	19.161	1.00	54.77	H	C
ÁTOMO	5116	CB	ASP	H	61	36.206	46.275	20.452	1.00	55.46	H	C
ÁTOMO	5117	CG	ASP	H	61	36.538	44.902	20.885	1.00	57.77	H	C
ÁTOMO	5118	OD1	ASP	H	61	37.403	44.611	21.711	1.00	58.30	H	O
ÁTOMO	5119	OD2	ASP	H	61	35.804	44.026	20.420	1.00	58.83	H	O
ÁTOMO	5120	C	ASP	H	61	34.655	47.507	19.054	1.00	54.65	H	C
ÁTOMO	5121	O	ASP	H	61	33.545	47.569	19.547	1.00	54.74	H	O
ÁTOMO	5122	N	SER	H	62	35.102	48.381	18.162	1.00	54.82	H	N
ÁTOMO	5123	CA	SER	H	62	34.543	49.676	17.993	1.00	56.32	H	C
ÁTOMO	5124	CB	SER	H	62	35.638	50.516	17.192	1.00	57.39	H	C
ÁTOMO	5125	OG	SER	H	62	35.889	50.046	15.798	1.00	59.78	H	O
ÁTOMO	5126	C	SER	H	62	33.163	49.619	17.362	1.00	56.10	H	C
ÁTOMO	5127	O	SER	H	62	32.468	50.520	17.414	1.00	55.34	H	O
ÁTOMO	5128	N	VAL	H	63	32.900	48.597	16.552	1.00	56.41	H	N
ÁTOMO	5129	CA	VAL	H	63	31.699	48.386	15.847	1.00	56.65	H	C
ÁTOMO	5130	CB	VAL	H	63	31.890	48.550	14.285	1.00	55.76	H	C
ÁTOMO	5131	CG1	VAL	H	63	32.652	49.663	14.056	1.00	54.30	H	C
ÁTOMO	5132	CG2	VAL	H	63	32.541	47.342	13.662	1.00	53.71	H	C
ÁTOMO	5133	C	VAL	H	63	31.043	46.946	16.075	1.00	57.66	H	C
ÁTOMO	5134	O	VAL	H	63	29.946	46.678	15.567	1.00	57.57	H	O
ÁTOMO	5135	N	LYS	H	64	31.674	46.040	16.780	1.00	58.60	H	N
ÁTOMO	5136	CA	LYS	H	64	31.037	44.767	17.007	1.00	60.19	H	C
ÁTOMO	5137	CB	LYS	H	64	31.873	43.826	17.908	1.00	61.48	H	C
ÁTOMO	5138	CG	LYS	H	64	31.453	42.283	17.741	1.00	62.93	H	C
ÁTOMO	5139	CD	LYS	H	64	32.299	41.554	18.817	1.00	64.36	H	C
ÁTOMO	5140	CE	LYS	H	64	31.942	40.092	19.153	1.00	65.73	H	C
ÁTOMO	5141	NZ	LYS	H	64	32.876	39.344	20.203	1.00	65.45	H	N
ÁTOMO	5142	C	LYS	H	64	29.648	44.855	17.722	1.00	60.59	H	C
ÁTOMO	5143	O	LYS	H	64	29.431	45.586	18.780	1.00	62.28	H	O
ÁTOMO	5144	N	GLY	H	65	28.729	44.105	17.128	1.00	59.72	H	N
ÁTOMO	5145	CA	GLY	H	65	27.365	44.166	17.600	1.00	58.63	H	C
ÁTOMO	5146	C	GLY	H	65	26.533	45.288	17.147	1.00	58.62	H	C
ÁTOMO	5147	O	GLY	H	65	25.347	45.340	17.462	1.00	59.10	H	O
ÁTOMO	5148	N	ARG	H	66	27.108	46.269	16.463	1.00	57.07	H	N
ÁTOMO	5149	CA	ARG	H	66	26.280	47.247	15.780	1.00	55.77	H	C
ÁTOMO	5150	CB	ARG	H	66	26.729	48.647	16.112	1.00	55.31	H	C
ÁTOMO	5151	CG	ARG	H	66	26.990	48.903	17.660	1.00	53.21	H	C
ÁTOMO	5152	CD	ARG	H	66	27.229	50.369	17.891	1.00	51.58	H	C
ÁTOMO	5153	NE	ARG	H	66	28.570	50.742	17.594	1.00	49.37	H	N
ÁTOMO	5154	CZ	ARG	H	66	28.931	51.813	16.823	1.00	50.26	H	C
ÁTOMO	5155	NH1	ARG	H	66	28.037	52.565	16.279	1.00	48.61	H	N
ÁTOMO	5156	NH2	ARG	H	66	30.200	52.124	16.519	1.00	49.64	H	N
ÁTOMO	5157	C	ARG	H	66	26.389	47.081	14.297	1.00	55.54	H	C
ÁTOMO	5158	O	ARG	H	66	25.503	47.441	13.635	1.00	55.80	H	O
ÁTOMO	5159	N	PHE	H	67	27.482	46.545	13.757	1.00	54.92	H	N

ÁTOMO	5160	CA	PHE H	67	27.672	46.501	12.322	1.00	54.62	H	C
ÁTOMO	5161	CB	PHE H	67	29.029	47.046	11.863	1.00	55.55	H	C
ÁTOMO	5162	CG	PHE H	67	29.137	48.569	11.794	1.00	56.18	H	C
ÁTOMO	5163	CD1	PHE H	67	28.315	49.397	12.535	1.00	54.88	H	C
ÁTOMO	5164	CD2	PHE H	67	30.137	49.156	11.059	1.00	55.35	H	C
ÁTOMO	5165	CE1	PHE H	67	28.498	50.731	12.493	1.00	56.55	H	C
ÁTOMO	5166	CE2	PHE H	67	30.283	50.503	11.012	1.00	55.27	H	C
ÁTOMO	5167	CZ	PHE H	67	29.510	51.315	11.687	1.00	55.25	H	C
ÁTOMO	5168	C	PHE H	67	27.636	45.083	11.915	1.00	54.09	H	C
ÁTOMO	5169	O	PHE H	67	27.967	44.187	12.703	1.00	53.47	H	O
ÁTOMO	5170	N	THR H	68	27.185	44.863	10.716	1.00	53.47	H	N
ÁTOMO	5171	CA	THR H	68	27.043	43.466	10.208	1.00	54.52	H	C
ÁTOMO	5172	CB	THR H	68	25.623	42.863	10.372	1.00	55.50	H	C
ÁTOMO	5173	OG1	THR H	68	25.227	42.726	11.744	1.00	56.18	H	O
ÁTOMO	5174	CG2	THR H	68	25.626	41.324	9.847	1.00	54.74	H	C
ÁTOMO	5175	C	THR H	68	27.369	43.493	8.681	1.00	54.03	H	C
ÁTOMO	5176	O	THR H	68	26.825	44.268	8.008	1.00	54.00	H	O
ÁTOMO	5177	N	ILE H	69	28.418	42.758	8.312	1.00	52.81	H	N
ÁTOMO	5178	CA	ILE H	69	28.871	42.515	6.903	1.00	51.48	H	C
ÁTOMO	5179	CB	ILE H	69	30.530	42.476	6.854	1.00	51.28	H	C
ÁTOMO	5180	CG2	ILE H	69	31.062	41.283	7.479	1.00	50.24	H	C
ÁTOMO	5181	CG1	ILE H	69	31.035	42.606	5.358	1.00	49.67	H	C
ÁTOMO	5182	CD1	ILE H	69	32.613	42.801	5.195	1.00	49.96	H	C
ÁTOMO	5183	C	ILE H	69	28.280	41.291	6.305	1.00	51.26	H	C
ÁTOMO	5184	O	ILE H	69	28.204	40.323	7.025	1.00	52.09	H	O
ÁTOMO	5185	N	SER H	70	27.863	41.288	5.093	1.00	50.56	H	N
ÁTOMO	5186	CA	SER H	70	27.401	40.072	4.393	1.00	51.41	H	C
ÁTOMO	5187	CB	SER H	70	25.909	40.011	4.459	1.00	50.53	H	C
ÁTOMO	5188	OG	SER H	70	25.366	41.376	4.072	1.00	51.90	H	O
ÁTOMO	5189	C	SER H	70	27.707	40.193	2.895	1.00	51.69	H	C
ÁTOMO	5190	O	SER H	70	28.045	41.274	2.444	1.00	51.39	H	O
ÁTOMO	5191	N	ARG H	71	27.528	39.135	2.133	1.00	51.78	H	N
ÁTOMO	5192	CA	ARG H	71	27.821	39.220	0.685	1.00	51.92	H	C
ÁTOMO	5193	CB	ARG H	71	29.163	38.500	0.369	1.00	50.83	H	C
ÁTOMO	5194	CG	ARG H	71	29.280	37.000	0.946	1.00	48.57	H	C
ÁTOMO	5195	CD	ARG H	71	30.574	36.465	0.945	1.00	47.03	H	C
ÁTOMO	5196	NE	ARG H	71	31.331	36.661	-0.344	1.00	43.91	H	N
ÁTOMO	5197	CZ	ARG H	71	32.635	36.759	-0-.514	1.00	44.40	H	C
ÁTOMO	5198	NH1	ARG H	71	33.443	36.645	0.485	1.00	44.25	H	N
ÁTOMO	5199	NH2	ARG H	71	33.137	36.861	-1.721	1.00	42.99	H	N
ÁTOMO	5200	C	ARG H	71	26.794	38.435	0.008	1.00	52.40	H	C
ÁTOMO	5201	O	ARG H	71	26.269	37.442	0.575	1.00	52.00	H	O
ÁTOMO	5202	N	ASP H	72	26.636	38.752	-1.253	1.00	53.22	H	N
ÁTOMO	5203	CA	ASP H	72	25.750	38.087	-2.065	1.00	54.30	H	C
ÁTOMO	5204	CB	ASP H	72	24.706	39.144	-2.484	1.00	57.72	H	C
ÁTOMO	5205	CG	ASP H	72	23.581	38.605	-3.544	1.00	61.26	H	C
ÁTOMO	5206	OD1	ASP H	72	23.881	37.685	-4.373	1.00	61.12	H	O
ÁTOMO	5207	OD2	ASP H	72	22.466	39.184	-3.613	1.00	63.54	H	O
ÁTOMO	5208	C	ASP H	72	26.491	37.583	-3.244	1.00	53.96	H	C
ÁTOMO	5209	O	ASP H	72	26.756	38.360	-4.270	1.00	54.68	H	O
ÁTOMO	5210	N	ASN H	73	26.711	36.267	-3.230	1.00	53.35	H	N
ÁTOMO	5211	CA	ASN H	73	27.576	35.773	-4.308	1.00	53.42	H	C
ÁTOMO	5212	CB	ASN H	73	28.264	34.501	-3.899	1.00	52.96	H	C
ÁTOMO	5213	CG	ASN H	73	29.163	34.664	-2.695	1.00	54.63	H	C
ÁTOMO	5214	OD1	ASN H	73	29.674	35.743	-2.461	1.00	56.11	H	0
ÁTOMO	5215	ND2	ASN H	73	29.245	33.639	-1.842	1.00	53.97	H	N
ÁTOMO	5216	C	ASN H	73	27.010	35.722	-5.731	1.00	52.70	H	C

ÁTOMO	5217	O	ASN	H	73	27.701	35.344	-6.643	1.00	52.43	H	O
ÁTOMO	5218	N	ALA	H	74	25.709	35.801	-5.830	1.00	53.07	H	N
ÁTOMO	5219	CA	ALA	H	74	24.963	35.601	-7.134	1.00	53.76	H	C
ÁTOMO	5220	CB	ALA	H	74	23.449	35.164	-6.989	1.00	52.82	H	C
ÁTOMO	5221	C	ALA	H	74	25.048	36.940	-7.773	1.00	53.98	H	C
ÁTOMO	5222	O	ALA	H	74	25.137	37.023	-8.944	1.00	54.91	H	O
ÁTOMO	5223	N	ARG	H	75	24.946	37.960	-6.946	1.00	53.48	H	N
ÁTOMO	5224	CA	ARG	H	75	25.028	39.266	-7.416	1.00	53.84	H	C
ÁTOMO	5225	CB	ARG	H	75	23.861	40.024	-6.712	1.00	56.70	H	C
ÁTOMO	5226	CG	ARG	H	75	22.486	39.956	-7.445	1.00	57.90	H	C
ÁTOMO	5227	CD	ARG	H	75	21.361	40.798	-6.811	1.00	60.38	H	C
ÁTOMO	5228	NE	ARG	H	75	20.699	39.885	-5.884	1.00	64.88	H	N
ÁTOMO	5229	CZ	ARG	H	75	19.499	39.426	-5.935	1.00	65.98	H	C
ÁTOMO	5230	NH1	ARG	H	75	18.646	39.712	-6.877	1.00	67.53	H	N
ÁTOMO	5231	NH2	ARG	H	75	19.147	38.611	-5.004	1.00	68.48	H	N
ÁTOMO	5232	C	ARG	H	75	26.355	40.070	-7.320	1.00	53.01	H	C
ÁTOMO	5233	O	ARG	H	75	26.491	41.234	-7.849	1.00	51.34	H	O
ÁTOMO	5234	N	ASN	H	76	27.361	39.476	-6.669	1.00	51.72	H	N
ÁTOMO	5235	CA	ASN	H	76	28.632	40.121	-6.510	1.00	50.79	H	C
ÁTOMO	5236	CB	ASN	H	76	29.315	40.254	-7.918	1.00	50.88	H	C
ÁTOMO	5237	CG	ASN	H	76	29.731	38.958	-8.434	1.00	51.70	H	C
ÁTOMO	5238	OD1	ASN	H	76	30.392	38.820	-9.470	1.00	50.64	H	O
ÁTOMO	5239	ND2	ASN	H	76	29.563	37.982	-7.603	1.00	52.12	H	N
ÁTOMO	5240	C	ASN	H	76	28.444	41.544	-5.865	1.00	49.22	H	C
ÁTOMO	5241	O	ASN	H	76	29.086	42.494	-6.227	1.00	47.56	H	O
ÁTOMO	5242	N	ILE	H	77	27.729	41.553	-4.754	1.00	47.69	H	N
ÁTOMO	5243	CA	ILE	H	77	27.579	42.653	-3.929	1.00	47.93	H	C
ÁTOMO	5244	CB	ILE	H	77	26.126	43.102	-3.973	1.00	47.80	H	C
ÁTOMO	5245	CG2	ILE	H	77	26.040	44.411	-3.140	1.00	48.14	H	C
ÁTOMO	5246	CG1	ILE	H	77	25.721	43.638	-5.331	1.00	46.37	H	C
ÁTOMO	5247	CD1	ILE	H	77	24.173	43.842	-5.549	1.00	45.88	H	C
ÁTOMO	5248	C	ILE	H	77	27.998	42.386	-2.487	1.00	48.54	H	C
ÁTOMO	5249	O	ILE	H	77	27.825	41.270	-1.957	1.00	48.81	H	O
ÁTOMO	5250	N	LEU	H	78	28.610	43.389	-1.863	1.00	47.84	H	N
ÁTOMO	5251	CA	LEU	H	78	29.059	43.294	-0.509	1.00	48.57	H	C
ÁTOMO	5252	CB	LEU	H	78	30.563	43.649	-0.495	1.00	48.73	H	C
ÁTOMO	5253	CG	LEU	H	78	31.088	43.596	0.929	1.00	47.67	H	C
ÁTOMO	5254	CD1	LEU	H	78	31.187	42.158	1.519	1.00	47.04	H	C
ÁTOMO	5255	CD2	LEU	H	78	32.365	44.371	1.207	1.00	47.57	H	C
ÁTOMO	5256	C	LEU	H	78	28.299	44.319	0.352	1.00	49.21	H	C
ÁTOMO	5257	O	LEU	H	78	27.826	45.315	-0.052	1.00	50.45	H	O
ÁTOMO	5258	N	TYR	H	79	28.035	44.033	1.553	1.00	50.75	H	N
ÁTOMO	5259	CA	TYR	H	79	27.177	44.855	2.317	1.00	52.06	H	C
ÁTOMO	5260	CB	TYR	H	79	25.742	44.140	2.498	1.00	53.35	H	C
ÁTOMO	5261	CG	TYR	H	79	24.871	43.972	1.172	1.00	55.87	H	C
ÁTOMO	5262	CD1	TYR	H	79	24.578	42.710	0.663	1.00	56.51	H	C
ÁTOMO	5263	CE1	TYR	H	79	23.735	42.556	-0.481	1.00	57.98	H	C
ÁTOMO	5264	CD2	TYR	H	79	24.374	45.043	0.491	1.00	55.72	H	C
ÁTOMO	5265	CE2	TYR	H	79	23.572	44.882	-0.639	1.00	56.31	H	C
ÁTOMO	5266	CZ	TYR	H	79	23.247	43.650	-1.054	1.00	58.45	H	C
ÁTOMO	5267	OH	TYR	H	79	22.609	43.533	-2.252	1.00	60.12	H	O
ÁTOMO	5268	C	TYR	H	79	27.702	45.191	3.633	1.00	52.15	H	C
ÁTOMO	5269	O	TYR	H	79	28.365	44.358	4.266	1.00	51.25	H	O
ÁTOMO	5270	N	LEU	H	80	27.289	46.360	4.152	1.00	52.18	H	N
ÁTOMO	5271	CA	LEU	H	80	27.608	46.718	5.521	1.00	52.72	H	C
ÁTOMO	5272	CB	LEU	H	80	28.802	47.563	5.493	1.00	51.05	H	C
ÁTOMO	5273	CG	LEU	H	80	29.222	48.078	6.905	1.00	52.44	H	C

ÁTOMO	5274	CD1	LEU H	80	29.699	46.925	7.713	1.00	53.20	H	C
ÁTOMO	5275	CD2	LEU H	80	30.226	49.254	7.078	1.00	51.80	H	C
ÁTOMO	5276	C	LEU H	80	26.405	47.402	6.180	1.00	53.63	H	C
ÁTOMO	5277	O	LEU H	80	25.923	48.431	5.665	1.00	53.00	H	O
ÁTOMO	5278	N	GLN H	81	25.772	46.703	7.112	1.00	54.52	H	N
ÁTOMO	5279	CA	GLN H	81	24.604	47.215	7.836	1.00	55.69	H	C
ÁTOMO	5280	CB	GLN H	81	23.568	46.125	8.221	1.00	56.62	H	C
ÁTOMO	5281	CG	GLN H	81	22.383	46.533	9.127	1.00	58.33	H	C
ÁTOMO	5282	CD	GLN H	81	21.423	47.264	8.251	1.00	60.67	H	C
ÁTOMO	5283	OE1	GLN H	81	20.972	46.664	7.278	1.00	62.49	H	O
ÁTOMO	5284	NE2	GLN H	81	21.387	48.608	8.375	1.00	60.55	H	N
ÁTOMO	5285	C	GLN H	81	25.055	47.763	9.110	1.00	56.82	H	C
ÁTOMO	5286	O	GLN H	81	25.683	46.975	9.959	1.00	57.61	H	O
ÁTOMO	5287	N	MET H	82A	24.641	48.995	9.331	1.00	58.28	H	N
ÁTOMO	5288	CA	MET H	82A	25.021	49.784	10.484	1.00	60.26	H	C
ÁTOMO	5289	CB	MET H	82A	25.707	51.079	10.003	1.00	61.16	H	C
ÁTOMO	5290	CG	MET H	82A	26.924	50.877	9.024	1.00	62.89	H	C
ÁTOMO	5291	SD	MET H	82A	27.898	52.390	8.755	1.00	64.38	H	S
ÁTOMO	5292	CE	MET H	82A	27.091	52.775	7.376	1.00	62.45	H	C
ÁTOMO	5293	C	MET H	82A	23.826	50.254	11.264	1.00	60.42	H	C
ÁTOMO	5294	O	MET H	82A	22.829	50.795	10.702	1.00	60.13	H	O
ÁTOMO	5295	N	SER H	82B	24.011	50.199	12.556	1.00	60.07	H	N
ÁTOMO	5296	CA	SER H	82B	22.880	50.393	13.477	1.00	60.49	H	C
ÁTOMO	5297	CB	SER H	82B	22.140	49.048	13.727	1.00	59.10	H	C
ÁTOMO	5298	OG	SER H	82B	22.902	48.287	14.714	1.00	61.61	H	O
ÁTOMO	5299	C	SER H	82B	23.449	51.108	14.761	1.00	60.67	H	C
ÁTOMO	5300	O	SER H	82B	24.669	51.138	14.980	1.00	61.39	H	O
ÁTOMO	5301	N	SER H	82C	22.635	51.846	15.459	1.00	60.07	H	N
ÁTOMO	5302	CA	SER H	82C	23.174	52.808	16.498	1.00	61.07	H	C
ÁTOMO	5303	CB	SER H	82C	23.475	52.032	17.784	1.00	61.29	H	C
ÁTOMO	5304	OG	SER H	82C	22.619	50.931	17.720	1.00	60.87	H	O
ÁTOMO	5305	C	SER H	82C	24.377	53.608	16.154	1.00	61.65	H	C
ÁTOMO	5306	O	SER H	82C	25.334	53.623	16.938	1.00	61.63	H	O
ÁTOMO	5307	N	LEU H	82D	24.353	54.235	14.971	1.00	61.41	H	N
ÁTOMO	5308	CA	LEU H	82D	25.433	55.102	14.508	1.00	61.72	H	C
ÁTOMO	5309	CB	LEU H	82D	24.979	55.739	13.156	1.00	60.37	H	C
ÁTOMO	5310	CG	LEU H	82D	24.975	54.687	12.069	1.00	59.24	H	C
ÁTOMO	5311	CD1	LEU H	82D	24.386	55.079	10.897	1.00	57.43	H	C
ÁTOMO	5312	CD2	LEU H	82D	26.461	54.225	11.718	1.00	58.39	H	C
ÁTOMO	5313	C	LEU H	82D	25.685	56.273	15.489	1.00	62.71	H	C
ÁTOMO	5314	O	LEU H	82D	24.718	56.901	15.988	1.00	64.10	H	O
ÁTOMO	5315	N	ARG H	83	26.928	56.521	15.850	1.00	63.66	H	N
ÁTOMO	5316	CA	ARG H	83	27.286	57.669	16.671	1.00	64.35	H	C
ÁTOMO	5317	CB	ARG H	83	28.035	57.275	17.953	1.00	64.30	H	C
ÁTOMO	5318	CG	ARG H	83	28.089	55.693	18.182	1.00	67.33	H	C
ÁTOMO	5319	CD	ARG H	83	28.592	55.263	19.516	1.00	69.20	H	C
ÁTOMO	5320	NE	ARG H	83	28.362	53.883	19.942	1.00	72.23	H	N
ÁTOMO	5321	CZ	ARG H	83	29.251	52.934	19.924	1.00	73.34	H	C
ÁTOMO	5322	NH1	ARG H	83	30.408	53.145	19.356	1.00	73.99	H	N
ÁTOMO	5323	NH2	ARG H	83	28.944	51.726	20.407	1.00	74.45	H	N
ÁTOMO	5324	C	ARG H	83	28.077	58.597	15.795	1.00	64.00	H	C
ÁTOMO	5325	O	ARG H	83	28.564	58.169	14.720	1.00	63.76	H	O
ÁTOMO	5326	N	SER H	84	28.296	59.837	16.310	1.00	63.40	H	N
ÁTOMO	5327	CA	SER H	84	29.007	60.906	15.511	1.00	62.90	H	C
ÁTOMO	5328	CB	SER H	84	29.129	62.220	16.249	1.00	62.76	H	C
ÁTOMO	5329	OG	SER H	84	29.598	61.963	17.500	1.00	64.95	H	O
ÁTOMO	5330	C	SER H	84	30.367	60.434	15.059	1.00	62.17	H	C
ÁTOMO	5331	O	SER H	84	30.796	60.790	13.908	1.00	62.05	H	O
ÁTOMO	5332	N	GLU H	85	31.008	59.642	15.944	1.00	60.48	H	N

ÁTOMO	5333	CA	GLU	H	85	32.356	59.037	15.635	1.00	59.67	H	C
ÁTOMO	5334	CB	GLU	H	85	32.818	58.098	16.798	1.00	59.83	H	C
ÁTOMO	5335	CG	GLU	H	85	32.602	58.833	17.959	1.00	63.33	H	C
ÁTOMO	5336	CD	GLU	H	85	31.403	58.378	18.752	1.00	64.36	H	C
ÁTOMO	5337	OE1	GLU	H	85	31.387	57.224	19.125	1.00	65.15	H	O
ÁTOMO	5338	OE2	GLU	H	85	30.602	59.226	19.061	1.00	66.28	H	O
ÁTOMO	5339	C	GLU	H	85	32.385	58.092	14.494	1.00	58.39	H	C
ÁTOMO	5340	O	GLU	H	85	33.412	57.539	14.307	1.00	59.02	H	O
ÁTOMO	5341	N	ASP	H	86	31.253	57.774	13.908	1.00	56.08	H	N
ÁTOMO	5342	CA	ASP	H	86	31.158	56.814	12.864	1.00	54.11	H	C
ÁTOMO	5343	CB	ASP	H	86	29.880	55.991	13.036	1.00	55.33	H	C
ÁTOMO	5344	CG	ASP	H	86	30.017	54.951	14.084	1.00	57.05	H	C
ÁTOMO	5345	OD1	ASP	H	86	29.030	54.963	14.834	1.00	58.36	H	O
ÁTOMO	5346	OD2	ASP	H	86	31.050	54.210	14.375	1.00	55.58	H	O
ÁTOMO	5347	C	ASP	H	86	31.243	57.475	11.489	1.00	52.34	H	C
ÁTOMO	5348	O	ASP	H	86	31.339	56.836	10.413	1.00	50.01	H	O
ÁTOMO	5349	N	THR	H	87	31.286	58.783	11.579	1.00	49.59	H	N
ÁTOMO	5350	CA	THR	H	87	31.325	59.669	10.417	1.00	48.63	H	C
ÁTOMO	5351	CB	THR	H	87	31.069	61.194	10.922	1.00	48.91	H	C
ÁTOMO	5352	OG1	THR	H	87	29.737	61.382	11.522	1.00	50.30	H	O
ÁTOMO	5353	CG2	THR	H	87	31.250	62.306	9.903	1.00	48.84	H	C
ÁTOMO	5354	C	THR	H	87	32.614	59.471	9.751	1.00	47.71	H	C
ÁTOMO	5355	O	THR	H	87	33.651	59.598	10.363	1.00	45.93	H	O
ÁTOMO	5356	N	ALA	H	88	32.525	59.243	8.444	1.00	45.98	H	N
ÁTOMO	5357	CA	ALA	H	88	33.696	58.816	7.656	1.00	44.66	H	C
ÁTOMO	5358	CB	ALA	H	88	34.219	57.705	8.177	1.00	43.85	H	C
ÁTOMO	5359	C	ALA	H	88	33.423	58.565	6.266	1.00	44.68	H	C
ÁTOMO	5360	O	ALA	H	88	32.260	58.442	5.872	1.00	45.79	H	O
ÁTOMO	5361	N	MET	H	89	34.498	58.433	5.474	1.00	44.08	H	N
ÁTOMO	5362	CA	MET	H	89	34.488	57.827	4.173	1.00	43.11	H	C
ÁTOMO	5363	CB	MET	H	89	35.704	58.347	3.419	1.00	43.90	H	C
ÁTOMO	5364	CG	MET	H	89	35.662	57.806	1.922	1.00	45.35	H	C
ÁTOMO	5365	SD	MET	H	89	34.197	58.351	0.916	1.00	50.54	H	S
ÁTOMO	5366	CE	MET	H	89	34.716	59.894	0.371	1.00	45.97	H	C
ÁTOMO	5367	C	MET	H	89	34.666	56.305	4.331	1.00	44.27	H	C
ÁTOMO	5368	O	MET	H	89	35.591	55.858	4.896	1.00	44.18	H	O
ÁTOMO	5369	N	TYR	H	90	33.626	55.528	4.007	1.00	43.97	H	N
ÁTOMO	5370	CA	TYR	H	90	33.576	54.059	4.051	1.00	43.93	H	C
ÁTOMO	5371	CB	TYR	H	90	32.153	53.648	4.374	1.00	42.74	H	C
ÁTOMO	5372	CG	TYR	H	90	31.822	53.774	5.899	1.00	42.49	H	C
ÁTOMO	5373	CD1	TYR	H	90	32.069	52.770	6.771	1.00	42.71	H	C
ÁTOMO	5374	CE1	TYR	H	90	31.778	52.890	8.105	1.00	41.99	H	C
ÁTOMO	5375	CD2	TYR	H	90	31.543	54.970	6.446	1.00	41.28	H	C
ÁTOMO	5376	CE2	TYR	H	90	31.376	55.175	7.823	1.00	41.04	H	C
ÁTOMO	5377	CZ	TYR	H	90	31.502	54.125	8.653	1.00	41.54	H	C
ÁTOMO	5378	OH	TYR	H	90	31.430	54.157	10.018	1.00	41.11	H	O
ÁTOMO	5379	C	TYR	H	90	34.061	53.435	2.663	1.00	44.56	H	C
ÁTOMO	5380	O	TYR	H	90	33.501	53.708	1.596	1.00	44.77	H	O
ÁTOMO	5381	N	TYR	H	91	35.160	52.733	2.666	1.00	42.96	H	N
ÁTOMO	5382	CA	TYR	H	91	35.638	52.127	1.436	1.00	43.91	H	C
ÁTOMO	5383	CB	TYR	H	91	37.214	52.315	1.356	1.00	42.41	H	C
ÁTOMO	5384	CG	TYR	H	91	37.761	53.729	1.202	1.00	43.94	H	C
ÁTOMO	5385	CD1	TYR	H	91	38.374	54.490	2.259	1.00	41.91	H	C
ÁTOMO	5386	CE1	TYR	H	91	38.708	55.820	2.057	1.00	44.39	H	C
ÁTOMO	5387	CD2	TYR	H	91	37.789	54.267	-0.090	1.00	42.91	H	C
ÁTOMO	5388	CE2	TYR	H	91	38.185	55.415	-0.312	1.00	45.60	H	C
ÁTOMO	5389	CZ	TYR	H	91	38.807	56.203	0.666	1.00	46.11	H	C
ÁTOMO	5390	OH	TYR	H	91	39.168	57.455	0.214	1.00	50.45	H	O
ÁTOMO	5391	C	TYR	H	91	35.356	50.634	1.438	1.00	44.70	H	C
ÁTOMO	5392	O	TYR	H	91	35.516	49.860	2.407	1.00	43.09	H	O
ÁTOMO	5393	N	CYS	H	92	35.128	50.127	0.237	1.00	45.69	H	N

ÁTOMO	5394	CA	CYS	H	92	35.005	48.670	0.074	1.00	46.10	H	C
ÁTOMO	5395	C	CYS	H	92	36.380	48.319	-0.337	1.00	44.52	H	C
ÁTOMO	5396	O	CYS	H	92	36.965	48.974	-1.220	1.00	43.72	H	O
ÁTOMO	5397	CB	CYS	H	92	34.031	48.498	-1.175	1.00	47.38	H	C
ÁTOMO	5398	SG	CYS	H	92	33.784	46.885	-1.690	1.00	56.06	H	S
ÁTOMO	5399	N	ALA	H	93	36.773	47.126	-0.042	1.00	43.35	H	N
ÁTOMO	5400	CA	ALA	H	93	38.079	46.581	-0.608	1.00	43.49	H	C
ÁTOMO	5401	CB	ALA	H	93	39.256	46.935	0.540	1.00	41.94	H	C
ÁTOMO	5402	C	ALA	H	93	38.022	45.117	-0.627	1.00	43.78	H	C
ÁTOMO	5403	O	ALA	H	93	37.485	44.409	0.487	1.00	45.34	H	O
ÁTOMO	5404	N	ARG	H	94	38.862	44.628	-1.461	1.00	43.45	H	N
ÁTOMO	5405	CA	ARG	H	94	39.053	43.214	-1.645	1.00	44.26	H	C
ÁTOMO	5406	CB	ARG	H	94	39.576	42.862	-3.109	1.00	45.24	H	C
ÁTOMO	5407	CG	ARG	H	94	39.501	41.398	-3.350	1.00	46.44	H	C
ÁTOMO	5408	CD	ARG	H	94	39.929	40.954	-4.994	1.00	47.28	H	C
ÁTOMO	5409	NE	ARG	H	94	41.337	40.997	-5.159	1.00	49.70	H	N
ÁTOMO	5410	CZ	ARG	H	94	41.991	40.672	-6.278	1.00	50.40	H	C
ÁTOMO	5411	NH1	ARG	H	94	41.357	40.531	-7.402	1.00	50.46	H	N
ÁTOMO	5412	NH2	ARG	H	94	43.276	40.565	-6.311	1.00	46.10	H	N
ÁTOMO	5413	C	ARG	H	94	40.201	42.746	-0.761	1.00	44.81	H	C
ÁTOMO	5414	O	ARG	H	94	41.240	43.215	-0.817	1.00	45.02	H	O
ÁTOMO	5415	N	LEU	H	95	39.932	41.776	0.081	1.00	44.55	H	N
ÁTOMO	5416	CA	LEU	H	95	40.997	41.445	1.189	1.00	43.74	H	C
ÁTOMO	5417	CB	LEU	H	95	40.289	41.191	2.470	1.00	41.49	H	C
ÁTOMO	5418	CG	LEU	H	95	41.121	40.420	3.541	1.00	42.09	H	C
ÁTOMO	5419	CD1	LEU	H	95	42.374	41.237	3.739	1.00	43.97	H	C
ÁTOMO	5420	CD2	LEU	H	95	40.120	40.347	4.728	1.00	43.57	H	C
ÁTOMO	5421	C	LEU	H	95	41.584	40.263	0.804	1.00	44.13	H	C
ÁTOMO	5422	O	LEU	H	95	40.903	39.281	0.740	1.00	46.03	H	O
ÁTOMO	5423	N	ASP	H	96	42.765	40.367	0.208	1.00	44.89	H	N
ÁTOMO	5424	CA	ASP	H	96	43.557	39.273	-0.364	1.00	45.30	H	C
ÁTOMO	5425	CB	ASP	H	96	44.541	39.676	-1.408	1.00	44.92	H	C
ÁTOMO	5426	CG	ASP	H	96	43.888	40.051	-2.741	1.00	48.16	H	C
ÁTOMO	5427	OD1	ASP	H	96	42.729	40.535	-2.757	1.00	48.56	H	O
ÁTOMO	5428	OD2	ASP	H	96	44.526	40.125	-3.840	1.00	49.25	H	O
ÁTOMO	5429	C	ASP	H	96	44.212	38.427	0.600	1.00	46.33	H	C
ÁTOMO	5430	O	ASP	H	96	44.551	37.315	0.197	1.00	48.00	H	O
ÁTOMO	5431	N	GLY	H	97	44.145	38.748	1.933	1.00	46.28	H	N
ÁTOMO	5432	CA	GLY	H	97	44.662	37.905	2.935	1.00	45.80	H	C
ÁTOMO	5433	C	GLY	H	97	45.751	38.577	3.889	1.00	46.63	H	C
ÁTOMO	5434	O	GLY	H	97	46.433	39.510	3.487	1.00	45.58	H	O
ÁTOMO	5435	N	TYR	H	98	45.867	38.104	5.140	1.00	45.50	H	N
ÁTOMO	5436	CA	TYR	H	98	46.921	38.596	5.940	1.00	45.67	H	C
ÁTOMO	5437	CB	TYR	H	98	46.875	38.006	7.336	1.00	44.72	H	C
ÁTOMO	5438	CG	TYR	H	98	47.032	36.530	7.385	1.00	45.01	H	C
ÁTOMO	5439	CD1	TYR	H	98	48.216	35.953	7.805	1.00	45.57	H	C
ÁTOMO	5440	CE1	TYR	H	98	48.418	34.646	7.739	1.00	46.45	H	C
ÁTOMO	5441	CD2	TYR	H	98	46.007	35.760	7.288	1.00	43.79	H	C
ÁTOMO	5442	CE2	TYR	H	98	46.089	34.336	7.473	1.00	45.14	H	C
ÁTOMO	5443	CZ	TYR	H	98	47.319	33.809	7.701	1.00	45.97	H	C
ÁTOMO	5444	OH	TYR	H	98	47.439	32.515	7.945	1.00	47.02	H	O
ÁTOMO	5445	C	TYR	H	98	48.298	38.576	5.350	1.00	45.31	H	C
ÁTOMO	5446	O	TYR	H	98	49.096	39.334	5.817	1.00	46.71	H	O
ÁTOMO	5447	N	TYR	H	99	48.587	37.714	4.324	1.00	44.78	H	N
ÁTOMO	5448	CA	TYR	H	99	49.812	37.624	3.630	1.00	43.31	H	C
ÁTOMO	5449	CB	TYR	H	99	50.227	36.082	3.153	1.00	45.33	H	C
ÁTOMO	5450	CG	TYR	H	99	50.752	35.176	4.285	1.00	47.93	H	C
ÁTOMO	5451	CD1	TYR	H	99	51.868	35.548	5.007	1.00	49.06	H	C
ÁTOMO	5452	CE1	TYR	H	99	52.254	34.855	6.073	1.00	50.83	H	C

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ÁTOMO	5453	CD2	TYR H	99	49.982	34.050	4.801	1.00	48.72	H	C
ÁTOMO	5454	CE2	TYR H	99	50.422	33.286	5.787	1.00	50.56	H	C
ÁTOMO	5455	CZ	TYR H	99	51.532	33.716	6.501	1.00	51.08	H	C
ÁTOMO	5456	OH	TYR H	99	51.955	32.910	7.410	1.00	50.59	H	O
ÁTOMO	5457	C	TYR H	99	49.829	38.483	2.360	1.00	41.57	H	C
ÁTOMO	5458	O	TYR H	99	50.880	38.715	1.772	1.00	42.24	H	O
ÁTOMO	5459	N	PHE H	100A	48.735	38.962	1.875	1.00	41.19	H	N
ÁTOMO	5460	CA	PHE H	100A	48.715	39.844	0.745	1.00	41.39	H	C
ÁTOMO	5461	CB	PHE H	100A	47.950	39.136	-0.406	1.00	41.14	H	C
ÁTOMO	5462	CG	PHE H	100A	48.520	37.790	-0.721	1.00	40.31	H	C
ÁTOMO	5463	CD1	PHE H	100A	48.087	36.764	-0.162	1.00	39.72	H	C
ÁTOMO	5464	CD2	PHE H	100A	49.650	37.668	-1.444	1.00	39.59	H	C
ÁTOMO	5465	CE1	PHE H	100A	48.687	35.463	-0.394	1.00	40.58	H	C
ÁTOMO	5466	CE2	PHE H	100A	50.144	36.420	-1.925	1.00	41.22	H	C
ÁTOMO	5467	CZ	PHE H	100A	49.756	35.288	-1.187	1.00	41.75	H	C
ÁTOMO	5468	C	PHE H	100A	48.163	41.269	0.851	1.00	41.09	H	C
ÁTOMO	5469	O	PHE H	100A	48.322	42.037	-0.071	1.00	40.97	H	O
ÁTOMO	5470	N	GLY H	100B	47.429	41.627	1.883	1.00	41.60	H	N
ÁTOMO	5471	CA	GLY H	100B	46.918	43.013	2.046	1.00	40.67	H	C
ÁTOMO	5472	C	GLY H	100B	45.530	43.259	1.366	1.00	41.06	H	C
ÁTOMO	5473	O	GLY H	100B	44.855	42.360	0.912	1.00	40.75	H	O
ÁTOMO	5474	N	PHE H	100C	45.087	44.491	1.365	1.00	39.30	H	N
ÁTOMO	5475	CA	PHE H	100C	43.876	44.969	0.745	1.00	39.10	H	C
ÁTOMO	5476	CB	PHE H	100C	43.437	46.207	1.455	1.00	36.63	H	C
ÁTOMO	5477	CG	PHE H	100C	42.852	46.003	2.697	1.00	37.34	H	C
ÁTOMO	5478	CD1	PHE H	100C	43.534	46.461	3.977	1.00	37.49	H	C
ÁTOMO	5479	CD2	PHE H	100C	41.806	45.153	2.862	1.00	37.27	H	C
ÁTOMO	5480	CE1	PHE H	100C	42.988	46.286	5.054	1.00	37.43	H	C
ÁTOMO	5481	CE2	PHE H	100C	41.256	44.860	4.462	1.00	37.98	H	C
ÁTOMO	5482	CZ	PHE H	100C	41.775	45.401	5.277	1.00	38.05	H	C
ÁTOMO	5483	C	PHE H	100C	44.310	45.386	-0.689	1.00	38.92	H	C
ÁTOMO	5484	O	PHE H	100C	44.856	46.558	-0.957	1.00	37.99	H	O
ÁTOMO	5485	N	ALA H	101	44.112	44.508	-1.626	1.00	38.37	H	N
ÁTOMO	5486	CA	ALA H	101	44.715	44.704	-2.982	1.00	38.04	H	C
ÁTOMO	5487	CB	ALA H	101	44.741	43.310	-3.802	1.00	37.26	H	C
ÁTOMO	5488	C	ALA H	101	43.888	45.617	-3.860	1.00	38.70	H	C
ÁTOMO	5489	O	ALA H	101	44.459	46.125	-4.821	1.00	39.22	H	O
ÁTOMO	5490	N	TYR H	102	42.624	45.849	-3.587	1.00	37.88	H	N
ÁTOMO	5491	CA	TYR H	102	41.823	46.756	-4.421	1.00	40.73	H	C
ÁTOMO	5492	CB	TYR H	102	40.881	45.940	-5.415	1.00	43.71	H	C
ÁTOMO	5493	CG	TYR H	102	41.770	45.485	-6.594	1.00	46.39	H	C
ÁTOMO	5494	CD1	TYR H	102	42.487	44.255	-6.486	1.00	46.61	H	C
ÁTOMO	5495	CE1	TYR H	102	43.463	43.807	-7.469	1.00	47.40	H	C
ÁTOMO	5496	CD2	TYR H	102	42.176	46.399	-7.510	1.00	46.31	H	C
ÁTOMO	5497	CE2	TYR H	102	43.139	45.953	-8.505	1.00	48.95	H	C
ÁTOMO	5498	CZ	TYR H	102	43.697	44.635	-8.507	1.00	50.42	H	C
ÁTOMO	5499	OH	TYR H	102	44.665	44.236	-9.426	1.00	50.89	H	O
ÁTOMO	5500	C	TYR H	102	40.807	47.551	-3.509	1.00	41.67	H	C
ÁTOMO	5501	O	TYR H	102	40.259	46.925	-2.531	1.00	41.21	H	O
ÁTOMO	5502	N	TRP H	103	40.625	48.838	-3.783	1.00	41.77	H	N
ÁTOMO	5503	CA	TRP H	103	39.717	49.645	-3.097	1.00	44.39	H	C
ÁTOMO	5504	CB	TRP H	103	40.386	50.618	-2.117	1.00	42.16	H	C
ÁTOMO	5505	CG	TRP H	103	41.471	50.174	-1.249	1.00	42.59	H	C
ÁTOMO	5506	CD2	TRP H	103	41.595	50.503	0.174	1.00	41.43	H	C
ÁTOMO	5507	CE2	TRP H	103	42.752	49.885	0.661	1.00	40.61	H	C
ÁTOMO	5508	CE3	TRP H	103	40.791	51.203	1.095	1.00	38.63	H	C
ÁTOMO	5509	CD1	TRP H	103	42.667	49.439	-1.605	1.00	41.54	H	C
ÁTOMO	5510	NE1	TRP H	103	43.385	49.247	-0.423	1.00	41.94	H	N

ÁTOMO	5511	CZ2	TRP H	103	43.179	50.049	2.000	1.00	37.96	H	C
ÁTOMO	5512	CZ3	TRP H	103	41.257	51.321	2.447	1.00	37.69	H	C
ÁTOMO	5513	CH2	TRP H	103	42.429	50.777	2.818	1.00	37.36	H	C
ÁTOMO	5514	C	TRP H	103	38.805	50.440	-3.949	1.00	45.62	H	C
ÁTOMO	5515	O	TRP H	103	39.068	50.687	-5.092	1.00	45.76	H	O
ÁTOMO	5516	N	GLY H	104	37.603	50.646	-3.465	1.00	46.03	H	N
ÁTOMO	5517	CA	GLY H	104	36.649	51.494	-4.232	1.00	49.34	H	C
ÁTOMO	5518	C	GLY H	104	36.862	52.969	-3.990	1.00	50.39	H	C
ÁTOMO	5519	O	GLY H	104	37.839	53.342	-3.435	1.00	50.04	H	O
ÁTOMO	5520	N	GLN H	105	35.899	53.812	-4.380	1.00	51.47	H	N
ÁTOMO	5521	CA	GLN H	105	36.001	55.263	-4.372	1.00	53.77	H	C
ÁTOMO	5522	CB	GLN H	105	35.215	55.927	-5.448	1.00	58.08	H	C
ÁTOMO	5523	CG	GLN H	105	36.012	55.514	-6.818	1.00	63.91	H	C
ÁTOMO	5524	CD	GLN H	105	37.577	56.078	-7.031	1.00	67.40	H	C
ÁTOMO	5525	OE1	GLN H	105	37.891	57.324	-6.794	1.00	70.51	H	O
ÁTOMO	5526	NE2	GLN H	105	38.506	55.151	-7.495	1.00	68.61	H	N
ÁTOMO	5527	C	GLN H	105	35.541	55.826	-3.186	1.00	53.77	H	C
ÁTOMO	5528	O	GLN H	105	35.881	56.980	-2.926	1.00	52.00	H	O
ÁTOMO	5529	N	GLY H	106	34.827	55.047	-2.408	1.00	53.76	H	N
ÁTOMO	5530	CA	GLY H	106	34.526	55.500	-1.099	1.00	53.09	H	C
ÁTOMO	5531	C	GLY H	106	33.100	56.020	-1.125	1.00	53.25	H	C
ÁTOMO	5532	O	GLY H	106	32.662	56.529	-2.182	1.00	53.58	H	O
ÁTOMO	5533	N	THR H	107	32.320	55.878	-0.055	1.00	51.37	H	N
ÁTOMO	5534	CA	THR H	107	31.068	56.570	0.001	1.00	49.58	H	C
ÁTOMO	5535	CB	THR H	107	29.822	55.625	-0.204	1.00	49.86	H	C
ÁTOMO	5536	OG1	THR H	107	28.563	56.384	-0.242	1.00	52.01	H	O
ÁTOMO	5537	CG2	THR H	107	29.563	54.703	0.994	1.00	48.32	H	C
ÁTOMO	5538	C	THR H	107	31.010	57.202	1.297	1.00	49.76	H	C
ÁTOMO	5539	O	THR H	107	31.356	56.588	2.303	1.00	49.74	H	O
ÁTOMO	5540	N	LEU H	108	30.618	58.471	1.346	1.00	50.53	H	N
ÁTOMO	5541	CA	LEU H	108	30.546,	59.237	2.619	1.00	51.52	H	C
ÁTOMO	5542	CB	LEU H	108	.30.711	60.734	2.383	1.00	52.39	H	C
ÁTOMO	5543	CG	LEU H	108	32.064	61.420	2.162	1.00	56.70	H	C
ÁTOMO	5544	CD1	LEU H	108	32.029	62.939	1.777	1.00	54.62	H	C
ÁTOMO	5545	CD2	LEU H	108	33.009	61.326	3.414	1.00	56.22	H	C
ÁTOMO	5546	C	LEU H	108	29.329	59.030	3.483	1.00	50.37	H	C
ÁTOMO	5547	O	LEU H	108	28.272	59.085	2.998	1.00	48.78	H	O
ÁTOMO	5548	N	VAL H	109	29.532	58'.955	4.786	1.00	49.42	H	N
ÁTOMO	5549	CA	VAL H	109	28.471	58.808	5.695	1.00	50.40	H	C
ÁTOMO	5550	CB	VAL H	109	28.528	57.421	6.360	1.00	50.35	H	C
ÁTOMO	5551	CG1	VAL H	109	27.558	57.361	7.473	1.00	49.64	H	C
ÁTOMO	5552	CG2	VAL H	109	28.360	56.213	5.360	1.00	49.09	H	C
ÁTOMO	5553	C	VAL H	109	28.586	59.882	6.856	1.00	51.56	H	C
ÁTOMO	5554	O	VAL H	109	29.611	59.948	7.554	1.00	51.16	H	O
ÁTOMO	5555	N	ALA H	110	27.582	60.770	7.019	1.00	51.38	H	N
ÁTOMO	5556	CA	ALA H	110	27.547	61.701	8.120	1.00	52.80	H	C
ÁTOMO	5557	CB	ALA H	110	27.449	63.102	7.626	1.00	52.41	H	C
ÁTOMO	5558	C	ALA H	110	26.460	61.441	9.110	1.00	52.98	H	C
ÁTOMO	5559	O	ALA H	110	25.368	61.185	8.712	1.00	52.47	H	O
ÁTOMO	5560	N	VAL H	111	26.893	61.338	10.336	1.00	54.00	H	N
ÁTOMO	5561	CA	VAL H	111	26.075	61.036	11.455	1.00	55.55	H	C
ÁTOMO	5562	CB	VAL H	111	26.756	60.138	12.381	1.00	55.09	H	C
ÁTOMO	5563	CG1	VAL H	111	25.748	59.634	13.565	1.00	55.18	H	C
ÁTOMO	5564	CG2	VAL H	111	27.155	58.795	11.646	1.00	53.86	H	C
ÁTOMO	5565	C	VAL H	111	25.946	62.358	12.138	1.00	57.61	H	C
ÁTOMO	5566	O	VAL H	111	26.838	62.797	12.773	1.00	57.50	H	O
ÁTOMO	5567	N	SER H	112	24.800	63.012	11.987	1.00	59.58	H	N
ÁTOMO	5568	CA	SER H	112	24.564	64.420	12.424	1.00	62.06	H	C
ÁTOMO	5569	CB	SER H	112	25.076	65.409	11.269	1.00	62.27	H	C

ATOMO	5570	OG	SER	H	112	24.805	66.847	11.473	1.00	63.44	H	O
ATOMO	5571	C	SER	H	112	23.061	64.596	12.675	1.00	64.01	H	C
ATOMO	5572	O	SER	H	112	22.269	64.096	11.871	1.00	64.87	H	O
ATOMO	5573	N	ALA	H	113	22.634	65.326	13.724	1.00	65.89	H	N
ATOMO	5574	CA	ALA	H	113	21.219	65.766	13.787	1.00	67.77	H	C
ATOMO	5575	CB	ALA	H	113	20.753	65.882	15.179	1.00	67.00	H	C
ATOMO	5576	C	ALA	H	113	20.861	67.043	12.965	1.00	69.23	H	C
ATOMO	5577	O	ALA	H	113	19.729	67.369	12.728	1.00	69.65	H	O
ATOMO	5578	N	ALA	H	114	21.836	67.674	12.368	1.00	69.99	H	N
ATOMO	5579	CA	ALA	H	114	21.556	68.745	11.383	1.00	71.20	H	C
ATOMO	5580	CB	ALA	H	114	22.832	69.472	11.042	1.00	70.37	H	C
ATOMO	5581	C	ALA	H	114	20.864	68.283	10.131	1.00	72.68	H	C
ATOMO	5582	O	ALA	H	114	20.698	67.061	9.867	1.00	72.43	H	O
ATOMO	5583	N	LYS	H	115	20.523	69.293	9.307	1.00	73.47	H	N
ATOMO	5584	CA	LYS	H	115	19.588	69.075	8.225	1.00	74.97	H	C
ATOMO	5585	CB	LYS	H	115	18.332	69.996	8.398	1.00	76.29	H	C
ATOMO	5586	CG	LYS	H	115	17.029	69.220	8.865	1.00	78.90	H	C
ATOMO	5587	CD	LYS	H	115	15.722	70.076	8.445	1.00	80.84	H	C
ATOMO	5588	CE	LYS	H	115	14.479	69.941	9.414	1.00	82.54	H	C
ATOMO	5589	NZ	LYS	H	115	13.417	70.968	9.050	1.00	84.38	H	N
ATOMO	5590	C	LYS	H	115	20.237	69.344	6.901	1.00	74.57	H	C
ATOMO	5591	O	LYS	H	115	20.973	70.400	6.712	1.00	74.15	H	O
ATOMO	5592	N	THR	H	116	19.761	68.565	5.925	1.00	74.05	H	N
ATOMO	5593	CA	THR	H	116	20.330	68.731	4.659	1.00	74.84	H	C
ATOMO	5594	CB	THR	H	116	20.188	67.575	3.700	1.00	75.81	H	C
ATOMO	5595	OG1	THR	H	116	19.398	67.962	2.580	1.00	78.72	H	O
ATOMO	5596	CG2	THR	H	116	19.520	66.458	4.332	1.00	77.18	H	C
ATOMO	5597	C	THR	H	116	20.045	70.095	4.138	1.00	74.35	H	C
ATOMO	5598	O	THR	H	116	19.015	70.595	4.371	1.00	74.89	H	O
ATOMO	5599	N	THR	H	117	21.028	70.736	3.524	1.00	73.19	H	N
ATOMO	5600	CA	THR	H	117	20.737	72.009	2.879	1.00	72.52	H	C
ATOMO	5601	CB	THR	H	117	21.321	73.135	3.718	1.00	72.50	H	C
ATOMO	5602	OG1	THR	H	117	21.009	72.949	5.153	1.00	72.65	H	O
ATOMO	5603	CG2	THR	H	117	20.677	74.469	3.161	1.00	71.32	H	C
ATOMO	5604	C	THR	H	117	21.307	72.133	1.516	1.00	71.62	H	C
ATOMO	5605	O	THR	H	117	22.446	71.904	1.379	1.00	72.24	H	O
ATOMO	5606	N	PRO	H	118	20.558	72.464	0.497	1.00	70.54	H	N
ATOMO	5607	CD	PRO	H	118	19.109	72.729	0.435	1.00	70.30	H	C
ATOMO	5608	CA	PRO	H	118	21.172	72.613	-0.815	1.00	69.81	H	C
ATOMO	5609	CB	PRO	H	118	19.973	72.676	-1.794	1.00	70.03	H	C
ATOMO	5610	CG	PRO	H	118	18.907	73.314	-1.007	1.00	69.36	H	C
ATOMO	5611	C	PRO	H	118	22.089	73.820	-0.850	1.00	69.30	H	C
ATOMO	5612	O	PRO	H	118	22.100	74.702	-0.001	1.00	68.93	H	O
ATOMO	5613	N	PRO	H	119	23.020	73.759	-1.772	1.00	69.63	H	N
ATOMO	5614	CD	PRO	H	119	23.318	72.607	-2.675	1.00	69.24	H	C
ATOMO	5615	CA	PRO	H	119	23.982	74.865	-1.927	1.00	69.43	H	C
ATOMO	5616	CB	PRO	H	119	25.140	74.229	-2.653	1.00	69.59	H	C
ATOMO	5617	CG	PRO	H	119	24.419	73.207	-3.526	1.00	69.96	H	C
ATOMO	5618	C	PRO	H	119	23.379	75.894	-2.789	1.00	69.54	H	C
ATOMO	5619	O	PRO	H	119	22.564	75.533	-3.519	1.00	69.35	H	O
ATOMO	5620	N	SER	H	120	23.735	77.137	-2.578	1.00	69.05	H	N
ATOMO	5621	CA	SER	H	120	23.541	78.148	-3.511	1.00	69.34	H	C
ATOMO	5622	CB	SER	H	120	23.388	79.438	-2.776	1.00	69.06	H	C
ATOMO	5623	OG	SER	H	120	22.280	79.351	-1.990	1.00	69.83	H	O
ATOMO	5624	C	SER	H	120	24.790	78.222	-4.362	1.00	69.65	H	C
ATOMO	5625	O	SER	H	120	25.825	78.200	-3.817	1.00	70.99	H	O
ATOMO	5626	N	VAL	H	121	24.683	78.406	-5.682	1.00	69.07	H	N
ATOMO	5627	CA	VAL	H	121	25.782	78.429	-6.568	1.00	68.49	H	C
ATOMO	5628	CB	VAL	H	121	25.581	77.269	-7.538	1.00	67.99	H	C
ATOMO	5629	CG1	VAL	H	121	26.660	77.227	-8.681	1.00	66.50	H	C
ATOMO	5630	CG2	VAL	H	121	25.504	75.933	-6.683	1.00	67.19	H	C
ATOMO	5631	C	VAL	H	121	25.903	79.759	-7.337	1.00	68.59	H	C
ATOMO	5632	O	VAL	H	121	25.006	80.213	-7.833	1.00	69.44	H	O
ATOMO	5633	N	TYR	H	122	27.035	80.351	-7.514	1.00	68.04	H	N
ATOMO	5634	CA	TYR	H	122	27.097	81.683	-8.072	1.00	68.49	H	C

ATOMO	5635	CB	TYR	H	122	27.326	82.741	-7.030	1.00	66.91	H	C
ATOMO	5636	CG	TYR	H	122	26.318	82.787	-5.901	1.00	65.94	H	C
ATOMO	5637	CD1	TYR	H	122	25.018	82.941	-6.191	1.00	65.72	H	C
ATOMO	5638	CE1	TYR	H	122	24.036	82.968	-5.212	1.00	64.55	H	C
ATOMO	5639	CD2	TYR	H	122	26.659	82.585	-4.584	1.00	64.79	H	C
ATOMO	5640	CE2	TYR	H	122	25.691	82.631	-3.591	1.00	64.05	H	C
ATOMO	5641	CZ	TYR	H	122	24.358	82.849	-3.962	1.00	63.93	H	C
ATOMO	5642	OH	TYR	H	122	23.289	82.929	-3.129	1.00	63.03	H	O
ATOMO	5643	C	TYR	H	122	28.278	81.724	-9.056	1.00	69.84	H	C
ATOMO	5644	O	TYR	H	122	29.303	81.211	-8.764	1.00	69.11	H	O
ATOMO	5645	N	PRO	H	123	28.142	82.401	-10.181	1.00	71.60	H	N
ATOMO	5646	CD	PRO	H	123	26.999	83.253	-10.618	1.00	71.61	H	C
ATOMO	5647	CA	PRO	H	123	29.225	82.373	-11.168	1.00	73.00	H	C
ATOMO	5648	CB	PRO	H	123	28.495	82.618	-12.519	1.00	72.20	H	C
ATOMO	5649	CG	PRO	H	123	27.297	83.644	-12.077	1.00	71.53	H	C
ATOMO	5650	C	PRO	H	123	30.228	83.455	-10.829	1.00	74.28	H	C
ATOMO	5651	O	PRO	H	123	29.839	84.542	-10.394	1.00	75.03	H	O
ATOMO	5652	N	LEU	H	124	31.500	83.209	-11.057	1.00	75.57	H	N
ATOMO	5653	CA	LEU	H	124	32.464	84.215	-10.808	1.00	77.18	H	C
ATOMO	5654	CB	LEU	H	124	33.515	83.686	-9.820	1.00	76.33	H	C
ATOMO	5655	CG	LEU	H	124	33.045	83.173	-8.499	1.00	75.63	H	C
ATOMO	5656	CD1	LEU	H	124	34.230	82.372	-7.902	1.00	75.48	H	C
ATOMO	5657	CD2	LEU	H	124	32.585	84.320	-7.676	1.00	75.22	H	C
ATOMO	5658	C	LEU	H	124	33.147	84.641	-12.061	1.00	78.64	H	C
ATOMO	5659	O	LEU	H	124	33.894	83.897	-12.645	1.00	78.81	H	O
ATOMO	5660	N	ALA	H	125	33.005	85.915	-12.348	1.00	80.89	H	N
ATOMO	5661	CA	ALA	H	125	33.442	86.473	-13.631	1.00	82.49	H	C
ATOMO	5662	CB	ALA	H	125	32.252	86.765	-14.462	1.00	81.49	H	C
ATOMO	5663	C	ALA	H	125	34.258	87.705	-13.366	1.00	83.38	H	C
ATOMO	5664	O	ALA	H	125	33.977	88.375	-12.373	1.00	83.49	H	O
ATOMO	5665	N	PRO	H	126	35.298	87.967	-14.181	1.00	84.62	H	N
ATOMO	5666	CD	PRO	H	126	35.713	87.225	-15.370	1.00	84.56	H	C
ATOMO	5667	CA	PRO	H	126	36.216	89.095	-13.959	1.00	85.66	H	C
ATOMO	5668	CB	PRO	H	126	37.083	89.030	-15.205	1.00	85.31	H	C
ATOMO	5669	CG	PRO	H	126	36.296	88.308	-16.113	1.00	84.85	H	C
ATOMO	5670	C	PRO	H	126	35.534	90.465	-13.871	1.00	86.61	H	C
ATOMO	5671	O	PRO	H	126	34.537	90.903	-14.349	1.00	86.89	H	O
ATOMO	5672	N	ALA	H	133	45.015	88.620	-19.518	1.00	87.90	H	N
ATOMO	5673	CA	ALA	H	133	46.014	88.473	-20.570	1.00	88.86	H	C
ATOMO	5674	CB	ALA	H	133	47.399	88.539	-19.927	1.00	88.44	H	C
ATOMO	5675	C	ALA	H	133	45.850	87.150	-21.322	1.00	89.28	H	C
ATOMO	5676	O	ALA	H	133	44.766	86.594	-21.442	1.00	89.70	H	O
ATOMO	5677	N	ALA	H	134	46.979	86.669	-21.875	1.00	89.69	H	N
ATOMO	5678	CA	ALA	H	134	46.941	85.423	-22.633	1.00	90.00	H	C
ATOMO	5679	CB	ALA	H	134	48.337	84.801	-22.599	1.00	90.26	H	C
ATOMO	5680	C	ALA	H	134	45.920	84.439	-22.055	1.00	90.19	H	C
ATOMO	5681	O	ALA	H	134	45.215	83.736	-22.766	1.00	90.05	H	O
ATOMO	5682	N	MET	H	135	45.887	84.376	-20.712	1.00	89.65	H	N
ATOMO	5683	CA	MET	H	135	44.974	83.444	-20.061	1.00	88.40	H	C
ATOMO	5684	CB	MET	H	135	45.807	82.459	-19.241	1.00	89.05	H	C
ATOMO	5685	CG	MET	H	135	46.718	81.595	-20.115	1.00	89.97	H	C
ATOMO	5686	SD	MET	H	135	45.790	80.601	-21.291	1.00	92.18	H	S
ATOMO	5687	CE	MET	H	135	44.934	79.553	-20.106	1.00	90.49	H	C
ATOMO	5688	C	MET	H	135	43.977	84.167	-19.152	1.00	87.02	H	C
ATOMO	5689	O	MET	H	135	44.172	85.301	-18.736	1.00	87.12	H	O
ATOMO	5690	N	VAL	H	136	42.854	83.477	-18.881	1.00	85.50	H	N
ATOMO	5691	CA	VAL	H	136	41.838	84.065	-18.018	1.00	83.76	H	C
ATOMO	5692	CB	VAL	H	136	40.793	84.742	-18.905	1.00	83.98	H	C
ATOMO	5693	CG1	VAL	H	136	39.802	83.703	-19.426	1.00	83.33	H	C
ATOMO	5694	CG2	VAL	H	136	40.041	85.793	-18.110	1.00	83.66	H	C
ATOMO	5695	C	VAL	H	136	41.164	83.009	-17.140	1.00	82.18	H	C
ATOMO	5696	O	VAL	H	136	40.857	81.903	-17.565	1.00	82.47	H	O
ATOMO	5697	N	THR	H	137	40.974	83.371	-15.858	1.00	80.41	H	N
ATOMO	5698	CA	THR	H	137	40.306	82.454	-14.943	1.00	79.76	H	C

ATOMO	5699	CB	THR	H	137	41.222	82.227	-13.740	1.00	79.32	H	C
ATOMO	5700	OG1	THR	H	137	40.560	82.675	-12.555	1.00	79.45	H	O
ATOMO	5701	CG2	THR	H	137	42.519	83.023	-13.911	1.00	78.61	H	C
ATOMO	5702	C	THR	H	137	38.957	83.011	-14.480	1.00	78.49	H	C
ATOMO	5703	O	THR	H	137	38.773	84.211	-14.320	1.00	78.29	H	O
ATOMO	5704	N	LEU	H	138	38.056	82.025	-14.373	1.00	77.73	H	N
ATOMO	5705	CA	LEU	H	138	36.717	82.196	-13.866	1.00	77.47	H	C
ATOMO	5706	CB	LEU	H	138	35.784	81.768	-14.997	1.00	78.10	H	C
ATOMO	5707	CG	LEU	H	138	36.149	82.431	-16.321	1.00	79.50	H	C
ATOMO	5708	CD1	LEU	H	138	35.422	81.810	-17.526	1.00	79.35	H	C
ATOMO	5709	CD2	LEU	H	138	35.787	83.917	-16.316	1.00	78.82	H	C
ATOMO	5710	C	LEU	H	138	36.566	81.217	-12.706	1.00	76.73	H	C
ATOMO	5711	O	LEU	H	138	37.440	80.402	-12.420	1.00	76.08	H	O
ATOMO	5712	N	GLY	H	139	35.428	81.318	-11.999	1.00	76.19	H	N
ATOMO	5713	CA	GLY	H	139	35.185	80.385	-10.926	1.00	76.09	H	C
ATOMO	5714	C	GLY	H	139	33.699	80.196	-10.655	1.00	75.94	H	C
ATOMO	5715	O	GLY	H	139	32.807	80.740	-11.324	1.00	75.89	H	O
ATOMO	5716	N	CYS	H	140	33.460	79.323	-9.639	1.00	76.35	H	N
ATOMO	5717	CA	CYS	H	140	32.115	79.018	-9.174	1.00	76.80	H	C
ATOMO	5718	C	CYS	H	140	32.118	78.990	-7.664	1.00	75.34	H	C
ATOMO	5719	O	CYS	H	140	32.979	78.400	-7.062	1.00	75.52	H	O
ATOMO	5720	CB	CYS	H	140	31.768	77.608	-9.693	1.00	78.19	H	C
ATOMO	5721	SG	CYS	H	140	30.531	77.716	-10.993	1.00	83.30	H	S
ATOMO	5722	N	LEU	H	141	31.166	79.675	-7.033	1.00	73.47	H	N
ATOMO	5723	CA	LEU	H	141	31.133	79.580	-5.599	1.00	70.98	H	C
ATOMO	5724	CB	LEU	H	141	31.071	81.022	-5.092	1.00	70.21	H	C
ATOMO	5725	CG	LEU	H	141	30.910	81.245	-3.583	1.00	69.27	H	C
ATOMO	5726	CD1	LEU	H	141	32.100	80.826	-2.720	1.00	68.13	H	C
ATOMO	5727	CD2	LEU	H	141	30.766	82.729	-3.303	1.00	68.78	H	C
ATOMO	5728	C	LEU	H	141	29.938	78.722	-5.186	1.00	69.23	H	C
ATOMO	5729	O	LEU	H	141	28.813	78.816	-5.720	1.00	69.90	H	O
ATOMO	5730	N	VAL	H	142	30.252	77.766	-4.287	1.00	66.68	H	N
ATOMO	5731	CA	VAL	H	142	29.214	76.863	-3.806	1.00	64.25	H	C
ATOMO	5732	CB	VAL	H	142	29.617	75.452	-4.218	1.00	64.24	H	C
ATOMO	5733	CG1	VAL	H	142	28.544	74.440	-3.846	1.00	61.94	H	C
ATOMO	5734	CG2	VAL	H	142	29.797	75.400	-5.719	1.00	61.98	H	C
ATOMO	5735	C	VAL	H	142	29.063	77.012	-2.312	1.00	63.46	H	C
ATOMO	5736	O	VAL	H	142	29.931	76.683	-1.511	1.00	62.73	H	O
ATOMO	5737	N	LYS	H	143	27.895	77.604	-1.972	1.00	62.44	H	N
ATOMO	5738	CA	LYS	H	143	27.728	78.239	-0.671	1.00	61.55	H	C
ATOMO	5739	CB	LYS	H	143	27.568	79.740	-0.912	1.00	61.63	H	C
ATOMO	5740	CG	LYS	H	143	27.800	80.536	0.368	1.00	64.18	H	C
ATOMO	5741	CD	LYS	H	143	27.452	82.004	0.237	1.00	66.95	H	C
ATOMO	5742	CE	LYS	H	143	27.476	82.690	1.597	1.00	67.20	H	C
ATOMO	5743	NZ	LYS	H	143	28.805	82.543	2.222	1.00	69.98	H	N
ATOMO	5744	C	LYS	H	143	26.502	77.737	0.069	1.00	60.08	H	C
ATOMO	5745	O	LYS	H	143	25.390	77.671	-0.439	1.00	59.81	H	O
ATOMO	5746	N	GLY	H	144	26.809	77.297	1.302	1.00	58.65	H	N
ATOMO	5747	CA	GLY	H	144	25.785	77.102	2.318	1.00	58.01	H	C
ATOMO	5748	C	GLY	H	144	25.114	75.718	2.273	1.00	57.98	H	C
ATOMO	5749	O	GLY	H	144	23.925	75.575	2.485	1.00	57.35	H	O
ATOMO	5750	N	TYR	H	145	25.914	74.670	1.969	1.00	57.90	H	N
ATOMO	5751	CA	TYR	H	145	25.310	73.332	1.814	1.00	57.33	H	C
ATOMO	5752	CB	TYR	H	145	25.754	72.732	0.470	1.00	57.61	H	C
ATOMO	5753	CG	TYR	H	145	27.211	72.419	0.469	1.00	59.84	H	C
ATOMO	5754	CD1	TYR	H	145	27.702	71.225	0.973	1.00	59.62	H	C
ATOMO	5755	CE1	TYR	H	145	29.021	70.862	0.786	1.00	61.69	H	C
ATOMO	5756	CD2	TYR	H	145	28.071	73.235	-0.241	1.00	60.20	H	C
ATOMO	5757	CE2	TYR	H	145	29.408	72.879	-0.428	1.00	60.85	H	C
ATOMO	5758	CZ	TYR	H	145	29.887	71.699	0.108	1.00	61.51	H	C
ATOMO	5759	OH	TYR	H	145	31.233	71.371	-0.008	1.00	63.36	H	O
ATOMO	5760	C	TYR	H	145	25.707	72.391	2.974	1.00	57.16	H	C
ATOMO	5761	O	TYR	H	145	26.691	72.595	3.662	1.00	56.86	H	O
ATOMO	5762	N	PHE	H	146	24.907	71.338	3.216	1.00	57.23	H	N

ÁTOMO	5763	CA	PHE H	146	25.269	70.307	4.209	1.00	57.03	H	C
ÁTOMO	5764	CB	PHE H	146	24.977	70.863	5.618	1.00	57.40	H	C
ÁTOMO	5765	CG	PHE H	146	25.239	69.831	6.686	1.00	57.38	H	C
ÁTOMO	5766	CD1	PHE H	146	26.497	69.744	7.267	1.00	56.79	H	C
ÁTOMO	5767	CD2	PHE H	146	24.228	68.953	7.079	1.00	57.31	H	C
ÁTOMO	5768	CE1	PHE H	146	26.753	68.781	8.233	1.00	56.84	H	C
ÁTOMO	5769	CE2	PHE H	146	24.492	67.991	8.047	1.00	57.73	H	C
ÁTOMO	5770	CZ	PHE H	146	25.753	67.889	8.614	1.00	56.94	H	C
ÁTOMO	5771	C	PHE H	146	24.395	69.079	3.936	1.00	57.78	H	C
ÁTOMO	5772	O	PHE H	146	23.225	69.177	3.600	1.00	58.27	H	O
ÁTOMO	5773	N	PRO H	147	24.948	67.837	4.033	1.00	57.91	H	N
ÁTOMO	5774	CD	PRO H	147	24.299	66.563	3.760	1.00	57.22	H	C
ÁTOMO	5775	CA	PRO H	147	26.347	67.580	4.399	1.00	56.51	H	C
ÁTOMO	5776	CB	PRO H	147	26.337	66.155	4.958	1.00	57.13	H	C
ÁTOMO	5777	CG	PRO H	147	25.316	65.398	4.154	1.00	57.27	H	C
ÁTOMO	5778	C	PRO H	147	27.195	67.564	3.130	1.00	56.56	H	C
ÁTOMO	5779	O	PRO H	147	26.749	67.891	2.031	1.00	55.45	H	O
ÁTOMO	5780	N	GLU H	148	28.481	67.179	3.330	1.00	55.99	H	N
ÁTOMO	5781	CA	GLU H	148	29.360	66.829	2.227	1.00	55.91	H	C
ÁTOMO	5782	CB	GLU H	148	30.818	66.673	2.755	1.00	55.82	H	C
ÁTOMO	5783	CG	GLU H	148	31.483	67.963	3.268	1.00	57.49	H	C
ÁTOMO	5784	CD	GLU H	148	32.922	68.092	2.735	1.00	60.41	H	C
ÁTOMO	5785	OE1	GLU H	148	33.838	67.843	3.478	1.00	62.59	H	O
ÁTOMO	5786	OE2	GLU H	148	33.117	68.614	1.641	1.00	60.21	H	O
ÁTOMO	5787	C	GLU H	148	28.866	65.468	1.672	1.00	54.77	H	C
ÁTOMO	5788	O	GLU H	148	28.271	64.686	2.384	1.00	55.39	H	O
ÁTOMO	5789	N	PRO H	149	29.156	65.241	0.375	1.00	54.06	H	N
ÁTOMO	5790	CD	PRO H	149	28.965	63.973	-0.326	1.00	52.97	H	C
ÁTOMO	5791	CA	PRO H	149	29.912	66.118	-0.486	1.00	54.94	H	C
ÁTOMO	5792	CB	PRO H	149	30.909	65.167	-1.114	1.00	54.57	H	C
ÁTOMO	5793	CG	PRO H	149	30.057	63.944	-1.504	1.00	54.42	H	C
ÁTOMO	5794	C	PRO H	149	29.121	66.781	-1.643	1.00	56.29	H	C
ÁTOMO	5795	O	PRO H	149	27.930	66.563	-1.847	1.00	57.63	H	O
ÁTOMO	5796	N	VAL H	150	29.844	67.654	-2.427	1.00	57.08	H	N
ÁTOMO	5797	CA	VAL H	150	29.324	68.079	-3.723	1.00	56.72	H	C
ÁTOMO	5798	CB	VAL H	150	29.146	69.608	-3.809	1.00	56.11	H	C
ÁTOMO	5799	CG1	VAL H	150	28.016	70.105	-2.912	1.00	55.69	H	C
ÁTOMO	5800	CG2	VAL H	150	30.449	70.326	-3.507	1.00	56.14	H	C
ÁTOMO	5801	C	VAL H	150	30.290	67.734	-4.807	1.00	57.76	H	C
ÁTOMO	5802	O	VAL H	150	31.430	67.338	-4.587	1.00	57.89	H	O
ÁTOMO	5803	N	THR H	151	29.837	67.938	-6.018	1.00	59.16	H	N
ÁTOMO	5804	CA	THR H	151	30.715	67.629	-7.095	1.00	60.28	H	C
ÁTOMO	5805	CB	THR H	151	30.353	66.211	-7.573	1.00	61.13	H	C
ÁTOMO	5806	OG1	THR H	151	31.476	65.613	-8.226	1.00	62.65	H	O
ÁTOMO	5807	CG2	THR H	151	29.132	66.233	-8.489	1.00	61.40	H	C
ÁTOMO	5808	C	THR H	151	30.628	68.695	-8.174	1.00	60.42	H	C
ÁTOMO	5809	O	THR H	151	29.556	69.171	-8.551	1.00	61.43	H	O
ÁTOMO	5810	N	VAL H	152	31.823	69.130	-8.609	1.00	60.63	H	N
ÁTOMO	5811	CA	VAL H	152	31.903	70.227	-9.539	1.00	60.80	H	C
ÁTOMO	5812	CB	VAL H	152	32.737	71.304	-8.867	1.00	61.18	H	C
ÁTOMO	5813	CG1	VAL H	152	33.050	72.431	-9.854	1.00	59.55	H	C
ÁTOMO	5814	CG2	VAL H	152	32.020	71.839	-7.646	1.00	60.63	H	C
ÁTOMO	5815	C	VAL H	152	32.626	69.789	-10.789	1.00	61.85	H	C
ÁTOMO	5816	O	VAL H	152	33.667	69.158	-10.717	1.00	61.61	H	O
ÁTOMO	5817	N	THR H	153	32.010	70.069	-11.955	1.00	63.13	H	N
ÁTOMO	5818	CA	THR H	153	32.739	69.927	-13.195	1.00	64.55	H	C
ÁTOMO	5819	CB	THR H	153	32.109	68.787	-14.003	1.00	64.46	H	C
ÁTOMO	5820	OG1	THR H	153	30.720	69.050	-14.214	1.00	66.15	H	O
ÁTOMO	5821	CG2	THR H	153	32.260	67.448	-13.266	1.00	63.21	H	C

ÁTOMO	5822	C	THR H	153	32.639	71.211	-13.991	1.00	65.35	H	C
ÁTOMO	5823	O	THR H	153	31.845	72.107	-13.682	1.00	65.82	H	O
ÁTOMO	5824	N	TRP H	154	33.506	71.320	-15.015	1.00	67.73	H	N
ÁTOMO	5825	CA	TRP H	154	33.347	72.395	-15.980	1.00	70.47	H	C
ÁTOMO	5826	CB	TRP H	154	34.619	73.250	-15.939	1.00	71.18	H	C
ÁTOMO	5827	CG	TRP H	154	34.748	73.980	-14.636	1.00	71.96	H	C
ÁTOMO	5828	CD2	TRP H	154	34.191	75.299	-14.369	1.00	72.27	H	C
ÁTOMO	5829	CE2	TRP H	154	34.618	75.650	-13.034	1.00	72.93	H	C
ÁTOMO	5830	CE3	TRP H	154	33.425	76.182	-15.096	1.00	72.34	H	C
ÁTOMO	5831	CD1	TRP H	154	35.493	73.616	-13.492	1.00	72.81	H	C
ÁTOMO	5832	NE1	TRP H	154	35.447	74.556	-12.501	1.00	72.55	H	N
ÁTOMO	5833	CZ2	TRP H	154	34.233	76.887	-12.518	1.00	73.00	H	C
ÁTOMO	5834	CZ3	TRP H	154	33.055	77.407	-14.581	1.00	73.01	H	C
ÁTOMO	5835	CH2	TRP H	154	33.453	77.757	-13.283	1.00	73.60	H	C
ÁTOMO	5836	C	TRP H	154	33.107	71.799	-17.383	1.00	71.96	H	C
ÁTOMO	5837	O	TRP H	154	33.638	70.750	-17.717	1.00	72.49	H	O
ÁTOMO	5838	N	ASN H	155	32.260	72.524	-18.176	1.00	73.41	H	N
ÁTOMO	5839	CA	ASN H	155	31.585	72.007	-19.404	1.00	74.78	H	C
ÁTOMO	5840	CB	ASN H	155	32.344	72.405	-20.678	1.00	73.67	H	C
ÁTOMO	5841	CG	ASN H	155	32.371	73.903	-20.835	1.00	72.85	H	C
ÁTOMO	5842	OD1	ASN H	155	31.399	74.614	-20.572	1.00	72.15	H	O
ÁTOMO	5843	ND2	ASN H	155	33.584	74.393	-21.194	1.00	73.17	H	N
ÁTOMO	5844	C	ASN H	155	31.216	70.502	-19.442	1.00	76.03	H	C
ÁTOMO	5845	O	ASN H	155	31.406	69.818	-20.459	1.00	76.90	H	O
ÁTOMO	5846	N	SER H	156	30.667	70.010	-18.306	1.00	77.24	H	N
ÁTOMO	5847	CA	SER H	156	30.036	68.674	-18.239	1.00	78.92	H	C
ÁTOMO	5848	CB	SER H	156	28.857	68.600	-19.221	1.00	79.62	H	C
ÁTOMO	5849	OG	SER H	156	27.897	69.586	-18.822	1.00	80.28	H	O
ÁTOMO	5850	C	SER H	156	31.016	67.491	-18.355	1.00	79.81	H	C
ÁTOMO	5851	O	SER H	156	30.668	66.343	-18.630	1.00	80.45	H	O
ÁTOMO	5852	N	GLY H	157	32.288	67.828	-18.097	1.00	80.22	H	N
ÁTOMO	5853	CA	GLY H	157	33.354	66.848	-18.140	1.00	80.31	H	C
ÁTOMO	5854	C	GLY H	157	34.487	67.349	-19.033	1.00	80.50	H	C
ÁTOMO	5855	O	GLY H	157	35.642	66.951	-18.923	1.00	80.73	H	O
ÁTOMO	5856	N	ALA H	158	34.098	68.246	-19.969	1.00	80.66	H	N
ÁTOMO	5857	CA	ALA H	158	35.030	68.606	-21.029	1.00	81.02	H	C
ÁTOMO	5858	CB	ALA H	158	34.297	69.433	-22.089	1.00	81.05	H	C
ÁTOMO	5859	C	ALA H	158	36.306	69.292	-20.525	1.00	81.09	H	C
ÁTOMO	5860	O	ALA H	158	37.407	68.848	-20.789	1.00	80.82	H	O
ÁTOMO	5861	N	LEU H	159	36.120	70.402	-19.776	1.00	81.48	H	N
ÁTOMO	5862	CA	LEU H	159	37.255	71.134	-19.228	1.00	81.12	H	C
ÁTOMO	5863	CB	LEU H	159	36.718	72.524	-18.926	1.00	81.49	H	C
ÁTOMO	5864	CG	LEU H	159	37.224	73.540	-19.951	1.00	80.68	H	C
ÁTOMO	5865	CD1	LEU H	159	36.514	74.885	-19.863	1.00	80.53	H	C
ÁTOMO	5866	CD2	LEU H	159	38.716	73.822	-19.816	1.00	81.02	H	C
ÁTOMO	5867	C	LEU H	159	37.786	70.536	-17.917	1.00	81.10	H	C
ÁTOMO	5868	O	LEU H	159	37.150	70.570	-16.885	1.00	80.67	H	O
ÁTOMO	5869	N	SER H	160	39.002	69.969	-17.978	1.00	81.36	H	N
ÁTOMO	5870	CA	SER H	160	39.491	69.283	-16.784	1.00	81.20	H	C
ÁTOMO	5871	CB	SER H	160	39.458	67.783	-17.075	1.00	81.88	H	C
ÁTOMO	5872	OG	SER H	160	39.477	67.580	-18.489	1.00	82.71	H	O
ÁTOMO	5873	C	SER H	160	40.911	69.699	-16.408	1.00	80.76	H	C
ÁTOMO	5874	O	SER H	160	41.486	69.249	-15.415	1.00	81.69	H	O
ÁTOMO	5875	N	SER H	161	41.515	70.530	-17.297	1.00	79.36	H	N
ÁTOMO	5876	CA	SER H	161	42.797	71.127	-16.948	1.00	78.19	H	C
ÁTOMO	5877	CB	SER H	161	43.864	70.721	-17.960	1.00	78.47	H	C
ÁTOMO	5878	OG	SER H	161	44.212	69.356	-17.737	1.00	80.44	H	O
ÁTOMO	5879	C	SER H	161	42.743	72.653	-16.771	1.00	76.76	H	C
ÁTOMO	5880	O	SER H	161	41.890	73.369	-17.292	1.00	76.36	H	O
ÁTOMO	5881	N	GLY H	162	43.720	73.112	-15.955	1.00	75.51	H	N
ÁTOMO	5882	CA	GLY H	162	43.708	74.467	-15.436	1.00	73.39	H	C

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ÁTOMO	5883	C	GLY H	162	42.535	74.685	-14.455	1.00	71.72	H	C
ÁTOMO	5884	O	GLY H	162	42.098	75.803	-14.213	1.00	72.43	H	O
ÁTOMO	5885	N	VAL H	163	42.005	73.511	-13.941	1.00	68.97	H	N
ÁTOMO	5886	CA	VAL H	163	40.926	73.470	-12.941	1.00	66.41	H	C
ÁTOMO	5887	CB	VAL H	163	39.906	72.375	-13.308	1.00	66.17	H	C
ÁTOMO	5888	CG1	VAL H	163	39.101	71.962	-12.064	1.00	64.64	H	C
ÁTOMO	5889	CG2	VAL H	163	38.945	72.866	-14.357	1.00	65.38	H	C
ÁTOMO	5890	C	VAL H	163	41.427	73.170	-11.526	1.00	65.54	H	C
ÁTOMO	5891	O	VAL H	163	42.045	72.151	-11.247	1.00	65.66	H	O
ÁTOMO	5892	N	HIS H	164	41.138	74.143	-10.634	1.00	64.28	H	N
ÁTOMO	5893	CA	HIS H	164	41.380	73.986	-9.217	1.00	62.68	H	C
ÁTOMO	5894	CB	HIS H	164	42.289	75.168	-8.825	1.00	62.70	H	C
ÁTOMO	5895	CG	HIS H	164	43.713	75.002	-9.366	1.00	61.67	H	C
ÁTOMO	5896	CD2	HIS H	164	44.444	75.900	-10.192	1.00	61.61	H	C
ÁTOMO	5897	ND1	HIS H	164	44.548	73.994	-8.998	1.00	61.59	H	N
ÁTOMO	5898	CE1	HIS H	164	45.733	74.259	-9.619	1.00	61.79	H	C
ÁTOMO	5899	NE2	HIS H	164	45.701	75.392	-10.339	1.00	61.73	H	N
ÁTOMO	5900	C	HIS H	164	40.045	74.070	-8.445	1.00	62.25	H	C
ÁTOMO	5901	O	HIS H	164	39.417	75.114	-8.357	1.00	62.65	H	O
ÁTOMO	5902	N	THR H	165	39.571	72.900	-7.924	1.00	60.50	H	N
ÁTOMO	5903	CA	THR H	165	38.430	72.875	-6.986	1.00	58.57	H	C
ÁTOMO	5904	CB	THR H	165	37.531	71.679	-7.383	1.00	58.57	H	C
ÁTOMO	5905	OG1	THR H	165	36.954	71.953	-8.661	1.00	57.87	H	O
ÁTOMO	5906	CG2	THR H	165	36.394	71.435	-6.374	1.00	56.88	H	C
ÁTOMO	5907	C	THR H	165	38.921	72.728	-5.529	1.00	57.25	H	C
ÁTOMO	5908	O	THR H	165	39.631	71.797	-5.164	1.00	57.26	H	O
ÁTOMO	5909	N	PHE H	166	38.577	73.747	-4.680	1.00	55.32	H	N
ÁTOMO	5910	CA	PHE H	166	39.188	73.844	-3.346	1.00	53.48	H	C
ÁTOMO	5911	CB	PHE H	166	39.250	75.330	-2.943	1.00	51.93	H	C
ÁTOMO	5912	CG	PHE H	166	40.124	76.136	-3.886	1.00	50.87	H	C
ÁTOMO	5913	CD1	PHE H	166	39.593	76.613	-5.092	1.00	49.87	H	C
ÁTOMO	5914	CD2	PHE H	166	41.457	76.408	-3.551	1.00	50.53	H	C
ÁTOMO	5915	CE1	PHE H	166	40.413	77.311	-5.980	1.00	48.36	H	C
ÁTOMO	5916	CE2	PHE H	166	42.274	77.110	-4.445	1.00	50.79	H	C
ÁTOMO	5917	CZ	PHE H	166	41.752	77.556	-5.660	1.00	48.16	H	C
ÁTOMO	5918	C	PHE H	166	38.401	73.043	-2.279	1.00	52.89	H	C
ÁTOMO	5919	O	PHE H	166	37.210	72.826	-2.376	1.00	53.51	H	O
ÁTOMO	5920	N	PRO H	167	39.133	72.552	-1.254	1.00	52.26	H	N
ÁTOMO	5921	CD	PRO H	167	40.559	72.601	-0.985	1.00	50.59	H	C
ÁTOMO	5922	CA	PRO H	167	38.463	71.788	-0.180	1.00	52.23	H	C
ÁTOMO	5923	CB	PRO H	167	39.563	71.373	0.812	1.00	51.28	H	C
ÁTOMO	5924	CG	PRO H	167	40.874	71.440	0.054	1.00	51.12	H	C
ÁTOMO	5925	C	PRO H	167	37.407	72.654	0.511	1.00	53.22	H	C
ÁTOMO	5926	O	PRO H	167	37.593	73.839	0.731	1.00	53.17	H	O
ÁTOMO	5927	N	ALA H	168	36.247	72.018	0.850	1.00	54.77	H	N
ÁTOMO	5928	CA	ALA H	168	35.223	72.783	1.570	1.00	56.82	H	C
ÁTOMO	5929	CB	ALA H	168	33.997	71.886	1.770	1.00	56.59	H	C
ÁTOMO	5930	C	ALA H	168	35.724	73.229	2.939	1.00	58.43	H	C
ÁTOMO	5931	O	ALA H	168	36.554	72.589	3.576	1.00	58.60	H	O
ÁTOMO	5932	N	VAL H	169	35.216	74.412	3.348	1.00	61.29	H	N
ÁTOMO	5933	CA	VAL H	169	35.314	74.880	4.720	1.00	64.98	H	C
ÁTOMO	5934	CB	VAL H	169	35.947	76.274	4.720	1.00	65.10	H	C
ÁTOMO	5935	CG1	VAL H	169	37.462	76.143	4.565	1.00	64.84	H	C
ÁTOMO	5936	CG2	VAL H	169	35.394	77.109	3.577	1.00	66.13	H	C
ÁTOMO	5937	C	VAL H	169	33.945	74.907	5.403	1.00	66.34	H	C
ÁTOMO	5938	O	VAL H	169	32.897	75.043	4.780	1.00	66.63	H	O
ÁTOMO	5939	N	LEU H	170	33.975	74.725	6.734	1.00	68.77	H	N
ÁTOMO	5940	CA	LEU H	170	32.726	74.631	7.475	1.00	71.62	H	C

ÁTOMO	5941	CB	LEU	H	170	32.786	73.367	8.340	1.00	70.81	H	C
ÁTOMO	5942	CG	LEU	H	170	31.534	73.158	9.194	1.00	70.04	H	C
ÁTOMO	5943	CD1	LEU	H	170	30.284	72.878	8.356	1.00	68.73	H	C
ÁTOMO	5944	CD2	LEU	H	170	31.668	71.975	10.159	1.00	69.05	H	C
ÁTOMO	5945	C	LEU	H	170	32.497	75.861	8.359	1.00	74.42	H	C
ÁTOMO	5946	O	LEU	H	170	33.216	76.124	9.315	1.00	74.98	H	O
ÁTOMO	5947	N	GLU	H	171	31.473	76.650	7.985	1.00	77.39	H	N
ÁTOMO	5948	CA	GLU	H	171	31.147	77.829	8.780	1.00	80.47	H	C
ÁTOMO	5949	CB	GLU	H	171	31.193	79.054	7.864	1.00	82.66	H	C
ÁTOMO	5950	CG	GLU	H	171	30.366	80.220	8.406	1.00	85.40	H	C
ÁTOMO	5951	CD	GLU	H	171	31.231	81.076	9.304	1.00	86.56	H	C
ÁTOMO	5952	OE1	GLU	H	171	30.703	81.973	9.945	1.00	87.03	H	O
ÁTOMO	5953	OE2	GLU	H	171	32.436	80.836	9.353	1.00	86.28	H	O
ÁTOMO	5954	C	GLU	H	171	29.769	77.704	9.430	1.00	81.61	H	C
ÁTOMO	5955	O	GLU	H	171	28.732	77.775	8.784	1.00	82.55	H	O
ÁTOMO	5956	N	SER	H	172	29.786	77.466	10.755	1.00	82.44	H	N
ÁTOMO	5957	CA	SER	H	172	28.538	77.280	11.487	1.00	83.43	H	C
ÁTOMO	5958	CB	SER	H	172	27.828	78.630	11.604	1.00	84.82	H	C
ÁTOMO	5959	OG	SER	H	172	27.626	78.930	12.985	1.00	86.80	H	O
ÁTOMO	5960	C	SER	H	172	27.621	76.250	10.819	1.00	83.32	H	C
ÁTOMO	5961	O	SER	H	172	26.564	76.556	10.283	1.00	83.57	H	O
ÁTOMO	5962	N	ASP	H	173	28.097	74.987	10.837	1.00	82.66	H	N
ÁTOMO	5963	CA	ASP	H	173	27.315	73.880	10.280	1.00	80.87	H	C
ÁTOMO	5964	CB	ASP	H	173	27.842	72.491	10.629	1.00	84.20	H	C
ÁTOMO	5965	CG	ASP	H	173	28.158	72.411	12.114	1.00	87.15	H	C
ÁTOMO	5966	OD1	ASP	H	173	28.796	73.336	12.616	1.00	88.19	H	O
ÁTOMO	5967	OD2	ASP	H	173	27.799	71.414	12.738	1.00	88.10	H	O
ÁTOMO	5968	C	ASP	H	173	26.810	74.056	8.846	1.00	78.06	H	C
ÁTOMO	5969	O	ASP	H	173	25.705	73.667	8.487	1.00	78.01	H	O
ÁTOMO	5970	N	LEU	H	174	27.656	74.697	8.017	1.00	73.95	H	N
ÁTOMO	5971	CA	LEU	H	174	27.402	74.696	6.579	1.00	70.41	H	C
ÁTOMO	5972	CB	LEU	H	174	26.488	75.875	6.219	1.00	70.08	H	C
ÁTOMO	5973	CG	LEU	H	174	25.025	75.612	6.594	1.00	70.43	H	C
ÁTOMO	5974	CD1	LEU	H	174	24.084	76.749	6.170	1.00	70.06	H	C
ÁTOMO	5975	CD2	LEU	H	174	24.469	74.336	5.958	1.00	69.67	H	C
ÁTOMO	5976	C	LEU	H	174	28.717	74.777	5.806	1.00	67.79	H	C
ÁTOMO	5977	O	LEU	H	174	29.660	75.460	6.187	1.00	66.62	H	O
ÁTOMO	5978	N	TYR	H	175	28.785	74.006	4.704	1.00	64.82	H	N
ÁTOMO	5979	CA	TYR	H	175	30.001	74.020	3.906	1.00	62.23	H	C
ÁTOMO	5980	CB	TYR	H	175	30.165	72.646	3.264	1.00	62.23	H	C
ÁTOMO	5981	CG	TYR	H	175	30.532	71.653	4.307	1.00	62.65	H	C
ÁTOMO	5982	CD1	TYR	H	175	31.855	71.542	4.721	1.00	63.65	H	C
ÁTOMO	5983	CE1	TYR	H	175	32.217	70.597	5.663	1.00	63.25	H	C
ÁTOMO	5984	CD2	TYR	H	175	29.569	70.808	4.851	1.00	62.78	H	C
ÁTOMO	5985	CE2	TYR	H	175	29.935	69.851	5.790	1.00	63.05	H	C
ÁTOMO	5986	CZ	TYR	H	175	31.254	69.741	6.188	1.00	63.80	H	C
ÁTOMO	5987	OH	TYR	H	175	31.620	68.822	7.153	1.00	65.22	H	O
ÁTOMO	5988	C	TYR	H	175	29.947	75.102	2.834	1.00	60.55	H	C
ÁTOMO	5989	O	TYR	H	175	28.904	75.420	2.278	1.00	60.47	H	O
ÁTOMO	5990	N	THR	H	176	31.145	75.617	2.509	1.00	58.14	H	N
ÁTOMO	5991	CA	THR	H	176	31.271	76.400	1.320	1.00	56.65	H	C
ÁTOMO	5992	CB	THR	H	176	31.337	77.854	1.722	1.00	56.64	H	C
ÁTOMO	5993	OG1	THR	H	176	30.080	78.266	2.254	1.00	57.48	H	O
ÁTOMO	5994	CG2	THR	H	176	31.662	78.674	0.474	1.00	55.36	H	C
ÁTOMO	5995	C	THR	H	176	32.535	76.046	0.581	1.00	55.63	H	C
ÁTOMO	5996	O	THR	H	176	33.607	75.880	1.154	1.00	54.15	H	O
ÁTOMO	5997	N	LEU	H	177	32.406	75.891	-0.743	1.00	54.99	H	N
ÁTOMO	5998	CA	LEU	H	177	33.644	75.711	-1.454	1.00	54.81	H	C
ÁTOMO	5999	CB	LEU	H	177	33.997	74.226	-1.576	1.00	53.58	H	C
ÁTOMO	6000	CG	LEU	H	177	33.205	73.434	-2.616	1.00	53.24	H	C

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ÁTOMO	6001	CD1	LEU	H	177	33.308	74.013	-4.022	1.00	51.50	H	C
ÁTOMO	6002	CD2	LEU	H	177	33.717	71.984	-2.732	1.00	51.97	H	C
ÁTOMO	6003	C	LEU	H	177	33.662	76.506	-2.744	1.00	55.13	H	C
ÁTOMO	6004	O	LEU	H	177	32.702	77.156	-3.143	1.00	54.75	H	O
ÁTOMO	6005	N	SER	H	178	34.839	76.548	-3.353	1.00	55.14	H	N
ÁTOMO	6006	CA	SER	H	178	34.915	77.210	-4.621	1.00	56.14	H	C
ÁTOMO	6007	CB	SER	H	178	35.455	78.635	-4.459	1.00	56.78	H	C
ÁTOMO	6008	OG	SER	H	178	36.837	78.573	-4.103	1.00	59.10	H	O
ÁTOMO	6009	C	SER	H	178	35.787	76.403	-5.564	1.00	56.78	H	C
ÁTOMO	6010	O	SER	H	178	36.603	75.556	-5.159	1.00	57.21	H	O
ÁTOMO	6011	N	SER	H	179	35.540	76.664	-6.871	1.00	57.71	H	N
ÁTOMO	6012	CA	SER	H	179	36.339	76.082	-7.932	1.00	58.62	H	C
ÁTOMO	6013	CB	SER	H	179	35.518	74.977	-8.584	1.00	58.75	H	C
ÁTOMO	6014	OG	SER	H	179	36.313	74.361	-9.613	1.00	59.52	H	O
ÁTOMO	6015	C	SER	H	179	36.675	77.129	-8.983	1.00	60.22	H	C
ÁTOMO	6016	O	SER	H	179	35.889	78.005	-9.295	1.00	59.16	H	O
ÁTOMO	6017	N	SER	H	180	37.916	77.008	-9.523	1.00	62.74	H	N
ÁTOMO	6018	CA	SER	H	180	38.398	77.958	-10.511	1.00	65.02	H	C
ÁTOMO	6019	CB	SER	H	180	39.555	78.780	-9.906	1.00	64.91	H	C
ÁTOMO	6020	OG	SER	H	180	40.781	78.041	-9.914	1.00	65.15	H	O
ÁTOMO	6021	C	SER	H	180	38.840	77.235	-11.782	1.00	66.68	H	C
ÁTOMO	6022	O	SER	H	180	39.221	76.062	-11.807	1.00	66.57	H	O
ÁTOMO	6023	N	VAL	H	181	38.720	77.943	-12.900	1.00	69.07	H	N
ÁTOMO	6024	CA	VAL	H	181	39.191	77.339	-14.121	1.00	71.88	H	C
ÁTOMO	6025	CB	VAL	H	181	37.992	76.656	-14.815	1.00	72.40	H	C
ÁTOMO	6026	CG1	VAL	H	181	37.011	77.703	-15.337	1.00	71.91	H	C
ÁTOMO	6027	CG2	VAL	H	181	38.489	75.812	-15.979	1.00	72.80	H	C
ÁTOMO	6028	C	VAL	H	181	39.883	78.374	-15.003	1.00	74.04	H	C
ÁTOMO	6029	O	VAL	H	181	39.424	79.508	-15.152	1.00	74.01	H	O
ÁTOMO	6030	N	THR	H	182	41.088	77.980	-15.536	1.00	76.61	H	N
ÁTOMO	6031	CA	THR	H	182	41.826	78.902	-16.431	1.00	79.82	H	C
ÁTOMO	6032	CB	THR	H	182	43.277	79.125	-15.950	1.00	79.87	H	C
ÁTOMO	6033	OG1	THR	H	182	43.322	79.384	-14.540	1.00	80.82	H	O
ÁTOMO	6034	CG2	THR	H	182	43.896	80.294	-16.730	1.00	80.09	H	C
ÁTOMO	6035	C	THR	H	182	41.812	78.403	-17.877	1.00	81.48	H	C
ÁTOMO	6036	O	THR	H	182	41.963	77.221	-18.160	1.00	81.90	H	O
ÁTOMO	6037	N	VAL	H	183	41.543	79.374	-18.794	1.00	83.41	H	N
ÁTOMO	6038	CA	VAL	H	183	41.506	79.122	-20.231	1.00	85.28	H	C
ÁTOMO	6039	CB	VAL	H	183	40.056	78.845	-20.658	1.00	84.90	H	C
ÁTOMO	6040	CG1	VAL	H	183	39.492	77.605	-19.968	1.00	84.54	H	C
ÁTOMO	6041	CG2	VAL	H	183	39.201	80.053	-20.320	1.00	84.50	H	C
ÁTOMO	6042	C	VAL	H	183	41.963	80.374	-20.976	1.00	86.87	H	C
ÁTOMO	6043	O	VAL	H	183	41.665	81.494	-20.600	1.00	86.42	H	O
ÁTOMO	6044	N	PRO	H	184	42.719	80.179	-22.083	1.00	88.54	H	N
ÁTOMO	6045	CD	PRO	H	184	43.143	78.934	-22.681	1.00	88.29	H	C
ÁTOMO	6046	CA	PRO	H	184	43.109	81.278	-22.974	1.00	89.59	H	C
ÁTOMO	6047	CB	PRO	H	184	43.425	80.640	-24.339	1.00	89.09	H	C
ÁTOMO	6048	CG	PRO	H	184	43.020	79.171	-24.249	1.00	88.32	H	C
ÁTOMO	6049	C	PRO	H	184	41.942	82.267	-23.160	1.00	90.99	H	C
ÁTOMO	6050	O	PRO	H	184	40.788	81.907	-23.284	1.00	91.39	H	O
ÁTOMO	6051	N	SER	H	185	42.265	83.573	-23.196	1.00	92.37	H	N
ÁTOMO	6052	CA	SER	H	185	41.175	84.539	-23.307	1.00	93.92	H	C
ÁTOMO	6053	CB	SER	H	185	41.796	85.917	-23.523	1.00	93.71	H	C
ÁTOMO	6054	OG	SER	H	185	43.100	85.935	-22.948	1.00	93.45	H	O
ÁTOMO	6055	C	SER	H	185	40.258	84.197	-24.482	1.00	95.37	H	C
ÁTOMO	6056	O	SER	H	185	39.053	84.030	-24.357	1.00	95.82	H	O
ÁTOMO	6057	N	SER	H	186	40.875	84.129	-25.669	1.00	96.71	H	N
ÁTOMO	6058	CA	SER	H	186	40.143	83.774	-26.880	1.00	97.45	H	C
ÁTOMO	6059	CB	SER	H	186	41.070	82.951	-27.779	1.00	97.22	H	C

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ÁTOMO	6060	OG	SER H 186	42.409	83.051	-27.294	1.00	96.73	H O
ÁTOMO	6061	C	SER H 186	38.872	82.975	-26.564	1.00	98.18	H C
ÁTOMO	6062	O	SER H 186	37.752	83.440	-26.720	1.00	98.23	H O
ÁTOMO	6063	N	PRO H 187	39.083	81.714	-26.142	1.00	98.67	H N
ÁTOMO	6064	CD	PRO H 187	40.347	81.049	-25.882	1.00	99.12	H C
ÁTOMO	6065	CA	PRO H 187	37.970	80.795	-25.903	1.00	98.81	H C
ÁTOMO	6066	CB	PRO H 187	38.558	79.487	-25.379	1.00	98.64	H C
ÁTOMO	6067	CG	PRO H 187	40.050	79.487	-25.685	1.00	99.00	H C
ÁTOMO	6068	C	PRO H 187	36.928	81.342	-24.911	1.00	99.06	H C
ÁTOMO	6069	O	PRO H 187	36.101	80.625	-24.368	1.00	99.21	H O
ÁTOMO	6070	N	ARG H188	37,001	82.663	-24.664	1.00	99.35	H N
ÁTOMO	6071	CA	ARG H188	36.126	83.344	-23.714	1.00	99.40	H C
ÁTOMO	6072	CB	ARG H188	36.567	82.959	-22.300	1.00	99.67	H C
ÁTOMO	6073	CG	ARG H188	35.443	82.305	-21.498	1.00	99.53	H C
ÁTOMO	6074	CD	ARG H188	34.248	83.247	-21.305	1.00	100.06	H C
ÁTOMO	6075	NE	ARG H188	34.581	84.322	-20.364	1.00	99.98	H N
ÁTOMO	6076	CZ	ARG H188	33.612	84.726	-19.521	1.00	100.11	H C
ÁTOMO	6077	NH1	ARG H188	32.423	84.150	-19.552	1.00	100.16	H N
ÁTOMO	6078	NH2	ARG H188	33.856	85.717	-18.659	1.00	99.90	H N
ÁTOMO	6079	C	ARG H188	36.183	84.865	-23.879	1.00	99.18	H C
ÁTOMO	6080	O	ARG H188	37.230	85.463	-24.085	1.00	99.88	H O
ÁTOMO	6081	N	PRO H 189	34.992	85.489	-23.825	1.00	98.61	H N
ÁTOMO	6082	CD	PRO H 189	34.695	86.909	-23.868	1.00	98.41	H C
ÁTOMO	6083	CA	PRO H 189	33.737	84.759	-23.700	1.00	98.37	H C
ÁTOMO	6084	CB	PRO H 189	32.648	85.752	-23.292	1.00	98.25	H C
ÁTOMO	6085	CG	PRO H 189	33.290	87.128	-23.140	1.00	97.82	H C
ÁTOMO	6086	C	PRO H 189	33.354	84.074	-25.015	1.00	98.61	H C
ÁTOMO	6087	O	PRO H 189	32.206	83.732	-25.264	1.00	98.49	H O
ÁTOMO	6088	N	SER H 190	34.360	83.922	-25.894	1.00	98.76	H N
ÁTOMO	6089	CA	SER H 190	34.104	83.255	-27.163	1.00	98.88	H C
ÁTOMO	6090	CB	SER H 190	35.433	82.711	-27.684	1.00	99.51	H C
ÁTOMO	6091	OG	SER H 190	35.181	81.696	-28.655	1.00	100.20	H O
ÁTOMO	6092	C	SER H 190	33.098	82.114	-26.993	1.00	98.50	H C
ÁTOMO	6093	O	SER H 190	31.933	82.211	-27.357	1.00	98.43	H O
ÁTOMO	6094	N	GLU H191	33.602	80.989	-26.451	1.00	98.18	H N
ÁTOMO	6095	CA	GLU H191	32.708	79.880	-26.132	1.00	97.34	H C
ÁTOMO	6096	CB	GLU H191	33.438	78.565	-26.415	1.00	98.15	H C
ÁTOMO	6097	CG	GLU H191	34.403	78.669	-27.596	1.00	99.39	H C
ÁTOMO	6098	CD	GLU H191	35.565	77.727	-27.379	1.00	100.16	H C
ÁTOMO	6099	OE1	GLU H191	36.435	78.045	-26.581	1.00	100.89	H O
ÁTOMO	6100	OE2	GLU H191	35.586	76.673	-28.012	1.00	100.38	H O
ÁTOMO	6101	C	GLU H191	32.264	79.934	-24.669	1.00	96.18	H C
ÁTOMO	6102	O	GLU H191	32.723	80.747	-23.876	1.00	95.98	H O
ÁTOMO	6103	N	THR H 192	31.308	79.047	-24.329	1.00	94.96	H N
ÁTOMO	6104	CA	THR H 192	30.724	79.091	-22.994	1.00	93.78	H C
ÁTOMO	6105	CB	THR H 192	29.277	78.623	-23.105	1.00	94.05	H C
ÁTOMO	6106	OG1	THR H 192	29.253	77.410	-23.863	1.00	94.26	H O
ÁTOMO	6107	CG2	THR H 192	28.440	79.678	-23.840	1.00	93.66	H C
ÁTOMO	6108	C	THR H 192	31.487	78.205	-22.002	1.00	92.58	H C
ÁTOMO	6109	O	THR H 192	31.918	77.102	-22.313	1.00	92.18	H O
ÁTOMO	6110	N	VAL H193	31.659	78.811	-20.824	1.00	90.80	H N
ÁTOMO	6111	CA	VAL H193	32.106	78.053	-19.668	1.00	88.60	H C
ÁTOMO	6112	CB	VAL H193	33.319	78.761	-19.062	1.00	88.07	H C
ÁTOMO	6113	CG1	VAL H193	33.150	80.273	-19.171	1.00	88.69	H C
ÁTOMO	6114	CG2	VAL H193	33.506	78.369	-17.610	1.00	87.63	H C

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ÁTOMO	6115	C	VAL	H	193	30.967	77.958	-18.664	1.00	87.38	H	C
ÁTOMO	6116	O	VAL	H	193	30.403	78.947	-18.214	1.00	87.20	H	O
ÁTOMO	6117	N	THR	H	194	30.587	76.709	-18.396	1.00	85.54	H	N
ÁTOMO	6118	CA	THR	H	194	29.492	76.478	-17.489	1.00	83.65	H	C
ÁTOMO	6119	CB	THR	H	194	28.370	75.813	-18.285	1.00	83.86	H	C
ÁTOMO	6120	OG1	THR	H	194	27.816	76.773	-19.185	1.00	84.35	H	O
ÁTOMO	6121	CG2	THR	H	194	27.260	75.339	-17.346	1.00	82.99	H	C
ÁTOMO	6122	C	THR	H	194	29.955	75.585	-16.355	1.00	82.17	H	C
ÁTOMO	6123	O	THR	H	194	30.672	74.613	-16.553	1.00	82.55	H	O
ÁTOMO	6124	N	CYS	H	195	29.544	75.716	-15.093	1.00	80.08	H	N
ÁTOMO	6125	CA	CYS	H	195	30.051	74.784	-14.145	1.00	78.12	H	C
ÁTOMO	6126	C	CYS	H	195	28.846	74.043	-13.572	1.00	76.08	H	C
ÁTOMO	6127	O	CYS	H	195	27.748	74.587	-13.422	1.00	74.81	H	O
ÁTOMO	6128	CB	CYS	H	195	30.825	75.600	-13.095	1.00	79.63	H	C
ÁTOMO	6129	SG	CYS	H	195	29.974	75.843	-11.518	1.00	82.89	H	S
ÁTOMO	6130	N	ASN	H	196	29.066	72.780	-13.183	1.00	74.40	H	N
ÁTOMO	6131	CA	ASN	H	196	27.980	71.872	-12.865	1.00	72.95	H	C
ÁTOMO	6132	CB	ASN	H	196	27.915	70.606	-13.774	1.00	72.15	H	C
ÁTOMO	6133	CG	ASN	H	196	28.406	70.875	-15.164	1.00	71.83	H	C
ÁTOMO	6134	OD1	ASN	H	196	29.525	71.162	-15.381	1.00	68.99	H	O
ÁTOMO	6135	ND2	ASN	H	196	27.501	70.826	-16.106	1.00	73.50	H	N
ÁTOMO	6136	C	ASN	H	196	28.281	71.399	-11.561	1.00	72.47	H	C
ÁTOMO	6137	O	ASN	H	196	29.217	70.696	-11.342	1.00	72.10	H	O
ÁTOMO	6138	N	VAL	H	197	27.318	71.586	-10.735	1.00	71.69	H	N
ÁTOMO	6139	CA	VAL	H	197	27.429	71.327	-9.318	1.00	70.22	H	C
ÁTOMO	6140	CB	VAL	H	197	27.179	72.629	-8.554	1.00	69.36	H	C
ÁTOMO	6141	CG1	VAL	H	197	27.229	72.357	-7.046	1.00	67.95	H	C
ÁTOMO	6142	CG2	VAL	H	197	28.253	73.643	-9.009	1.00	68.71	H	C
ÁTOMO	6143	C	VAL	H	197	26.381	70.345	-8.905	1.00	69.75	H	C
ÁTOMO	6144	O	VAL	H	197	25.213	70.530	-9.240	1.00	70.35	H	O
ÁTOMO	6145	N	ALA	H	198	26.747	69.318	-8.145	1.00	68.57	H	N
ÁTOMO	6146	CA	ALA	H	198	25.749	68.437	-7.608	1.00	67.67	H	C
ÁTOMO	6147	CB	ALA	H	198	25.841	67.205	-8.296	1.00	67.30	H	C
ÁTOMO	6148	C	ALA	H	198	25.921	68.201	-6.135	1.00	67.32	H	C
ÁTOMO	6149	O	ALA	H	198	27.024	68.151	-5.641	1.00	66.23	H	O
ÁTOMO	6150	N	HIS	H	199	24.826	67.953	-5.469	1.00	67.38	H	N
ÁTOMO	6151	CA	HIS	H	199	24.776	67.804	-4.064	1.00	68.47	H	C
ÁTOMO	6152	CB	HIS	H	199	24.255	69.073	-3.271	1.00	67.96	H	C
ÁTOMO	6153	CG	HIS	H	199	24.329	68.894	-1.791	1.00	67.23	H	C
ÁTOMO	6154	CD2	HIS	H	199	25.311	68.371	-1.013	1.00	66.87	H	C
ÁTOMO	6155	ND1	HIS	H	199	23.282	69.150	-0.952	1.00	66.44	H	N
ÁTOMO	6156	CE1	HIS	H	199	23.669	68.911	0.302	1.00	67.18	H	C
ÁTOMO	6157	NE2	HIS	H	199	24.894	68.391	0.287	1.00	66.30	H	N
ÁTOMO	6158	C	HIS	H	199	23.780	66.705	-3.971	1.00	69.13	H	C
ÁTOMO	6159	O	HIS	H	199	22.637	67.026	-3.897	1.00	69.67	H	O
ÁTOMO	6160	N	PRO	H	200	24.226	65.441	-4.035	1.00	69.98	H	N
ÁTOMO	6161	CD	PRO	H	200	25.632	65.150	-4.215	1.00	69.33	H	C
ÁTOMO	6162	CA	PRO	H	200	23.392	64.222	-3.910	1.00	70.75	H	C
ÁTOMO	6163	CB	PRO	H	200	24.401	63.064	-3.673	1.00	70.87	H	C
ÁTOMO	6164	CG	PRO	H	200	25.708	63.634	-4.023	1.00	71.25	H	C
ÁTOMO	6165	C	PRO	H	200	22.503	64.261	-2.707	1.00	72.04	H	C
ÁTOMO	6166	O	PRO	H	200	21.333	64.016	-2.771	1.00	72.64	H	O
ÁTOMO	6167	N	ALA	H	201	23.032	64.644	-1.571	1.00	72.86	H	N
ÁTOMO	6168	CA	ALA	H	201	22.184	64.607	-0.379	1.00	72.98	H	C
ÁTOMO	6169	CB	ALA	H	201	22.890	65.109	0.764	1.00	72.38	H	C
ÁTOMO	6170	C	ALA	H	201	20.826	65.318	-0.529	1.00	73.61	H	C
ÁTOMO	6171	O	ALA	H	201	19.920	64.865	0.034	1.00	73.80	H	O
ÁTOMO	6172	N	SER	H	202	20.716	66.390	-1.286	1.00	74.32	H	N
ÁTOMO	6173	CA	SER	H	202	19.446	67.136	-1.396	1.00	75.64	H	C

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ÁTOMO	6174	CB	SER H	202	19.660	68.595	-0.939	1.00	76.16	H	C
ÁTOMO	6175	OG	SER H	202	20.291	69.315	-2.024	1.00	76.25	H	O
ÁTOMO	6176	C	SER H	202	18.957	67.126	-2.831	1.00	76.11	H	C
ÁTOMO	6177	O	SER H	202	18.189	67.973	-3.318	1.00	76.18	H	O
ÁTOMO	6178	N	SER H	203	19.464	66.185	-3.560	1.00	76.76	H	N
ÁTOMO	6179	CA	SER H	203	18.892	65.969	-4.827	1.00	77.54	H	C
ÁTOMO	6180	CB	SER H	203	17.413	65.525	-4.606	1.00	77.35	H	C
ÁTOMO	6181	OG	SER H	203	17.284	64.168	-4.052	1.00	77.60	H	O
ÁTOMO	6182	C	SER H	203	19.000	67.249	-5.719	1.00	77.79	H	C
ÁTOMO	6183	O	SER H	203	18.065	67.645	-6.453	1.00	78.13	H	O
ÁTOMO	6184	N	THR H	204	20.149	67.858	-5.688	1.00	77.85	H	N
ÁTOMO	6185	CA	THR H	204	20.306	69.116	-6.344	1.00	78.95	H	C
ÁTOMO	6186	CB	THR H	204	20.920	70.101	-5.307	1.00	79.06	H	C
ÁTOMO	6187	OG1	THR H	204	20.042	70.161	-4.206	1.00	80.45	H	O
ÁTOMO	6188	CG2	THR H	204	20.960	71.527	-5.762	1.00	79.18	H	C
ÁTOMO	6189	C	THR H	204	21.192	68.896	-7.564	1.00	79.50	H	C
ÁTOMO	6190	O	THR H	204	22.173	68.187	-7.512	1.00	79.85	H	O
ÁTOMO	6191	N	LYS H	205	20.870	69.539	-8.645	1.00	80.18	H	N
ÁTOMO	6192	CA	LYS H	205	21.768	69.545	-9.766	1.00	81.64	H	C
ÁTOMO	6193	CB	LYS H	205	21.729	68.172	-10.481	1.00	81.77	H	C
ÁTOMO	6194	CG	LYS H	205	22.428	68.031	-11.878	1.00	83.94	H	C
ÁTOMO	6195	CD	LYS H	205	23.761	68.927	-12.188	1.00	85.65	H	C
ÁTOMO	6196	CE	LYS H	205	24.377	68.628	-13.676	1.00	86.61	H	C
ÁTOMO	6197	NZ	LYS H	205	25.873	68.732	-13.750	1.00	87.15	H	N
ÁTOMO	6198	C	LYS H	205	21.510	70.851	-10.601	1.00	82.29	H	C
ÁTOMO	6199	O	LYS H	205	20.392	71.121	-11.148	1.00	82.64	H	O
ÁTOMO	6200	N	VAL H	206	22.546	71.701	-10.571	1.00	82.71	H	N
ÁTOMO	6201	CA	VAL H	206	22.509	73.046	-11.125	1.00	83.11	H	C
ÁTOMO	6202	CB	VAL H	206	22.556	74.056	-10.024	1.00	83.19	H	C
ÁTOMO	6203	CG1	VAL H	206	22.550	75.540	-10.675	1.00	83.85	H	C
ÁTOMO	6204	CG2	VAL H	206	21.380	73.847	-9.119	1.00	82.83	H	C
ÁTOMO	6205	C	VAL H	206	23.694	73.338	-12.032	1.00	83.70	H	C
ÁTOMO	6206	O	VAL H	206	24.827	72.842	-11.783	1.00	83.58	H	O
ÁTOMO	6207	N	ASP H	207	23.422	74.134	-13.075	1.00	84.95	H	N
ÁTOMO	6208	CA	ASP H	207	24.462	74.532	-14.042	1.00	86.38	H	C
ÁTOMO	6209	CB	ASP H	207	24.270	73.858	-15.435	1.00	86.99	H	C
ÁTOMO	6210	CG	ASP H	207	24.342	72.302	-15.384	1.00	88.63	H	C
ÁTOMO	6211	OD1	ASP H	207	25.436	71.773	-15.662	1.00	88.98	H	O
ÁTOMO	6212	OD2	ASP H	207	23.380	71.538	-15.103	1.00	89.52	H	O
ÁTOMO	6213	C	ASP H	207	24.456	76.044	-14.123	1.00	87.07	H	C
ÁTOMO	6214	O	ASP H	207	23.501	76.601	-14.580	1.00	86.95	H	O
ÁTOMO	6215	N	ALA H	208	25.484	76.710	-13.580	1.00	87.90	H	N
ÁTOMO	6216	CA	ALA H	208	25.563	78.160	-13.722	1.00	88.66	H	C
ÁTOMO	6217	CB	ALA H	208	25.811	78.899	-12.475	1.00	87.84	H	C
ÁTOMO	6218	C	ALA H	208	26.572	78.528	-14.793	1.00	89.66	H	C
ÁTOMO	6219	O	ALA H	208	27.793	78.193	-14.774	1.00	89.70	H	O
ÁTOMO	6220	N	LYS H	209	25.997	79.265	-15.730	1.00	90.60	H	N
ÁTOMO	6221	CA	LYS H	209	26.707	79.881	-16.848	1.00	91.34	H	C
ÁTOMO	6222	CB	LYS H	209	25.694	80.141	-17.964	1.00	91.16	H	C
ÁTOMO	6223	CG	LYS H	209	26.283	80.980	-19.098	1.00	91.01	H	C
ÁTOMO	6224	CD	LYS H	209	25.227	81.362	-20.136	1.00	90.83	H	C
ÁTOMO	6225	CE	LYS H	209	25.837	81.992	-21.392	1.00	90.53	H	C
ÁTOMO	6226	NZ	LYS H	209	24.796	82.699	-22.135	1.00	89.44	H	N
ÁTOMO	6227	C	LYS H	209	27.401	81.189	-16.447	1.00	91.78	H	C
ÁTOMO	6228	O	LYS H	209	26.832	82.071	-15.816	1.00	91.55	H	O
ÁTOMO	6229	N	ILE H	210	28.695	81.276	-16.805	1.00	92.64	H	N
ÁTOMO	6230	CA	ILE H	210	29.438	82.494	-16.508	1.00	93.49	H	C

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ÁTOMO	6231	CB	ILE H	210	30.918	82.136	-16.427	1.00	92.09	H	C
ÁTOMO	6232	CG2	ILE H	210	31.654	83.154	-15.536	1.00	91.71	H	C
ÁTOMO	6233	CG1	ILE H	210	31.088	80.751	-15.794	1.00	91.25	H	C
ÁTOMO	6234	CD1	ILE H	210	30.409	80.649	-14.424	1.00	90.25	H	C
ÁTOMO	6235	C	ILE H	210	29.192	83.572	-17.570	1.00	95.01	H	C
ÁTOMO	6236	O	ILE H	210	29.623	83.485	-18.713	1.00	95.16	H	O
ÁTOMO	6237	N	ALA H	211	28.423	84.594	-17.155	1.00	96.52	H	N
ÁTOMO	6238	CA	ALA H	211	27.957	85.595	-18.107	1.00	97.96	H	C
ÁTOMO	6239	CB	ALA H	211	26.989	86.529	-17.376	1.00	97.85	H	C
ÁTOMO	6240	C	ALA H	211	29.105	86.409	-18.708	1.00	99.08	H	C
ÁTOMO	6241	O	ALA H	211	29.787	85.997	-19.636	1.00	99.14	H	O
ÁTOMO	6242	N	ALA H	212	29.276	87.629	-18.171	1.00	100.17	H	N
ÁTOMO	6243	CA	ALA H	212	30.290	88.518	-18.725	1.00	101.26	H	C
ÁTOMO	6244	CB	ALA H	212	29.844	88.922	-20.131	1.00	101.45	H	C
ÁTOMO	6245	C	ALA H	212	30.480	89.764	-17.861	1.00	101.96	H	C
ÁTOMO	6246	O	ALA H	212	31.345	89.835	-16.998	1.00	102.21	H	O
ÁTOMO	6247	N	ALA H	213	29.660	90.793	-18.151	1.00	103.01	H	N
ÁTOMO	6248	CA	ALA H	213	29.750	92.013	-17.360	1.00	104.14	H	C
ÁTOMO	6249	CB	ALA H	213	29.407	91.661	-15.911	1.00	104.00	H	C
ÁTOMO	6250	C	ALA H	213	31.154	92.615	-17.425	1.00	105.06	H	C
ÁTOMO	6251	O	ALA H	213	31.731	93.023	-16.428	1.00	105.39	H	O
ÁTOMO	6252	OXT	ALA H	213	31.766	92.717	-18.478	1.00	105.71	H	O
ÁTOMO	6253	O	HOH W	1	48.040	27.606	-7.533	1.00	43.49	W	O
ÁTOMO	6254	O	HOH W	2	56.255	30.910	-4.462	1.00	55.47	W	O
ÁTOMO	6255	O	HOH W	3	53.943	67.195	-8.118	1.00	54.98	W	O
ÁTOMO	6256	O	HOH W	4	26.430	18.335	-11.581	1.00	44.42	W	O
ÁTOMO	6257	O	HOH W	5	35.131	45.610	-13.929	1.00	49.40	W	O
ÁTOMO	6258	O	HOH W	6	32.116	35.087	-8.534	1.00	56.83	W	O
ÁTOMO	6259	O	HOH W	7	51.776	59.864	11.192	1.00	42.02	W	O
ÁTOMO	6260	O	HOH W	8	44.767	37.321	-4.124	1.00	42.78	W	O
ÁTOMO	6261	O	HOH W	9	39.735	52.975	-5.906	1.00	61.02	W	O
ÁTOMO	6262	O	HOH W	10	51.943	57.484	12.566	1.00	39.47	W	O
ÁTOMO	6263	O	HOH W	11	38.747	31.228	-1.651	1.00	43.69	W	O
ÁTOMO	6264	O	HOH W	12	46.181	62.163	0.296	1.00	56.40	W	O
ÁTOMO	6265	O	HOH W	13	58.428	47.238	4.389	1.00	48.79	W	O
ÁTOMO	6266	O	HOH W	14	43.554	36.444	-2.054	1.00	45.57	W	O
ÁTOMO	6267	O	HOH W	15	57.415	61.701	12.627	1.00	41.49	W	O
ÁTOMO	6268	O	HOH W	16	61.270	51.287	12.253	1.00	67.52	W	O
ÁTOMO	6269	O	HOH W	18	48.459	41.310	-2.576	1.00	48.81	W	O
ÁTOMO	6270	O	HOH W	19	53.916	29.663	7.818	1.00	48.60	W	O
ÁTOMO	6271	O	HOH W	20	56.558	71.377	-0.532	1.00	48.14	W	O
ÁTOMO	6272	O	HOH W	21	32.808	27.123	-0.609	1.00	44.93	W	O
ÁTOMO	6273	O	HOH W	22	47.847	62.036	-10.526	1.00	63.97	W	O
ÁTOMO	6274	O	HOH W	23	36.925	77.944	-1.838	1.00	50.62	W	O
ÁTOMO	6275	O	HOH W	24	26.214	42.194	14.054	1.00	63.38	W	O
ÁTOMO	6276	O	HOH W	25	45.644	56.046	9.966	1.00	42.51	W	O
ÁTOMO	6277	O	HOH W	26	44.856	70.990	1.971	1.00	72.82	W	O
ÁTOMO	6278	O	HOH W	27	41.934	61.986	-0.999	1.00	78.26	W	O
ÁTOMO	6279	O	HOH W	28	25.281	34.502	-1.348	1.00	61.27	W	O
ÁTOMO	6280	O	HOH W	29	49.892	62.411	-6.980	1.00	59.50	W	O
ÁTOMO	6281	O	HOH W	30	29.792	66.376	5.878	1.00	52.90	W	O
ÁTOMO	6282	O	HOH W	31	38.272	58.084	-4.321	1.00	65.01	W	O
ÁTOMO	6283	O	HOH W	32	27.858	55.054	-6.230	1.00	56.02	W	O
ÁTOMO	6284	O	HOH W	33	57.799	63.672	-12.243	1.00	59.48	W	O
ÁTOMO	6285	O	HOH W	34	31.795	68.789	0.185	1.00	63.03	W	O
ÁTOMO	6286	O	HOH W	35	38.425	31.427	-8.589	1.00	60.62	W	O
ÁTOMO	6287	O	HOH W	36	46.860	66.957	-9.197	1.00	54.26	W	O
ÁTOMO	6288	O	HOH W	37	36.028	69.393	-9.044	1.00	62.22	W	O
ÁTOMO	6289	O	HOH W	38	41.452	74.029	2.581	1.00	57.03	W	O
ÁTOMO	6290	O	HOH W	39	61.277	8.820	8.379	1.00	45.17	W	O
ÁTOMO	6291	O	HOH W	40	58.226	38.911	5.165	1.00	58.24	W	O

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ÁTOMO	6292	O	HOH W	41	45.000	61.694	3.280	1.00	67.77	W O
ÁTOMO	6293	O	HOH W	42	32.220	33.159	-1.482	1.00	54.51	W O
ÁTOMO	6294	O	HOH W	43	24.268	56.225	-2.604	1.00	75.87	W O
ÁTOMO	6295	O	HOH W	44	43.870	51.811	12.171	1.00	43.94	W O
ÁTOMO	6296	O	HOH W	45	45.208	48.980	-4.712	1.00	41.05	W O
ÁTOMO	6297	O	HOH W	46	51.086	54.354	-7.830	1.00	52.34	W O
ÁTOMO	6298	O	HOH W	47	45.735	54.909	12.584	1.00	47.53	W O
ÁTOMO	6299	O	HOH W	48	40.670	36.691	-0.514	1.00	40.03	W O
ÁTOMO	6300	O	HOH W	49	47.855	48.291	-6.195	1.00	47.98	W O
ÁTOMO	6301	O	HOH W	50	27.975	20.736	-9.226	1.00	61.39	W O
ÁTOMO	6302	O	HOH W	51	26.649	37.011	3.912	1.00	54.89	W O
ÁTOMO	6303	O	HOH W	52	40.332	12.184	-6.970	1.00	60.26	W O
ÁTOMO	6304	O	HOH W	53	26.889	4.626	-22.012	1.00	50.29	W O
ÁTOMO	6305	O	HOH W	54	46.332	35.286	4.217	1.00	42.35	W O
ÁTOMO	6306	O	HOH W	55	38.286	11.976	-5.012	1.00	47.62	W O
ÁTOMO	6307	O	HOH W	56	52.678	29.083	-13.037	1.00	74.09	W O
ÁTOMO	6308	O	HOH W	57	42.010	49.514	12.090	1.00	48.80	W O
ÁTOMO	6309	O	HOH W	58	34.530	60.323	12.849	1.00	51.87	W O
ÁTOMO	6310	O	HOH W	59	35.892	62.030	6.806	1.00	67.89	W O
ÁTOMO	6311	O	HOH W	60	32.190	8.378	-14.298	1.00	57.42	W O
ÁTOMO	6312	O	HOH W	61	45.527	38.449	11.020	1.00	42.83	W O
ÁTOMO	6313	O	HOH W	62	45.913	56.892	-4.556	1.00	49.15	W O
ÁTOMO	6314	O	HOH W	63	38.310	29.708	-4.579	1.00	59.27	W O
ÁTOMO	6315	O	HOH W	64	54.611	60.457	12.380	1.00	48.38	W O
ÁTOMO	6316	O	HOH W	65	39.898	13.402	4.429	1.00	56.14	W O
ÁTOMO	6317	O	HOH W	66	44.938	65.750	1.699	1.00	77.41	W O
ÁTOMO	6318	O	HOH W	67	22.644	47.300	-3.327	1.00	78.49	W O
ÁTOMO	6319	O	HOH W	68	40.739	60.462	13.589	1.00	57.60	W O
ÁTOMO	6320	O	HOH W	69	58.604	38.401	16.276	1.00	63.25	W O
ÁTOMO	6321	O	HOH W	70	23.021	50.256	-0.331	1.00	64.43	W O
ÁTOMO	6322	O	HOH W	72	36.562	76.332	0.228	1.00	59.77	W O
ÁTOMO	6323	O	HOH W	73	36.156	30.941	5.240	1.00	54.66	W O
ÁTOMO	6324	O	HOH W	74	46.575	45.898	-6.213	1.00	51.03	W O
ÁTOMO	6325	O	HOH W	75	63.106	60.743	5.288	1.00	65.63	W O
ÁTOMO	6326	O	HOH W	76	27.283	11.656	-26.940	1.00	64.69	W O
ÁTOMO	6327	O	HOH W	77	42.119	12.906	-15.812	1.00	69.75	W O
ÁTOMO	6328	O	HOH W	78	56.213	74.271	0.210	1.00	49.07	W O
ÁTOMO	6329	O	HOH W	79	49.593	17.074	4.731	1.00	51.22	W O
ÁTOMO	6330	O	HOH W	80	19.205	50.436	6.981	1.00	65.58	W O
ÁTOMO	6331	O	HOH W	81	62.469	45.075	15.496	1.00	57.05	W O
ÁTOMO	6332	O	HOH W	82	63.942	60.529	2.662	1.00	65.56	W O
ÁTOMO	6333	O	HOH W	83	51.559	22.884	-12.355	1.00	53.77	W O
ÁTOMO	6334	O	HOH W	84	56.702	18.717	-5.348	1.00	60.77	W O
ÁTOMO	6335	O	HOH W	85	56.703	13.170	-0.339	1.00	53.66	W O
ÁTOMO	6336	O	HOH W	86	38.703	45.090	18.422	1.00	49.89	W O
ÁTOMO	6337	O	HOH W	87	55.180	62.436	-12.094	1.00	62.42	W O
ÁTOMO	6338	O	HOH W	88	53.098	34.493	-1.712	1.00	40.29	W O
ÁTOMO	6339	O	HOH W	89	42.579	52.369	-5.068	1.00	63.35	W O
ÁTOMO	6340	O	HOH W	90	57.341	68.463	4.885	1.00	63.09	W O
ÁTOMO	6341	O	HOH W	91	61.045	40.263	-1.253	1.00	61.58	W O
ÁTOMO	6342	O	HOH W	92	35.567	69.261	-15.191	1.00	63.58	W O
ÁTOMO	6343	O	HOH W	93	56.069	24.458	4.847	1.00	55.61	W O
ÁTOMO	6344	O	HOH W	94	42.082	14.769	-10.703	1.00	76.08	W O
ÁTOMO	6345	O	HOH W	95	30.011	60.161	-0.586	1.00	56.59	W O
ÁTOMO	6346	O	HOH W	96	38.436	48.430	17.977	1.00	68.46	W O
ÁTOMO	6347	O	HOH W	98	50.322	24.776	-13.192	1.00	58.28	W O
ÁTOMO	6348	O	HOH W	99	58.464	55.474	13.643	1.00	51.66	W O
ÁTOMO	6349	O	HOH W	100	44.700	36.694	-6.969	1.00	70.56	W O
ÁTOMO	6350	O	HOH W	102	23.656	17.781	-5.182	1.00	68.07	W O

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ÁTOMO	6351	O	HOH	W	103	37.411	50.148	-8.219	1.00	52.24	W O
ÁTOMO	6352	O	HOH	W	104	39.637	14.794	-13.739	1.00	66.82	W O
ÁTOMO	6353	O	HOH	W	106	28.717	35.027	-8.770	1.00	79.00	W O
ÁTOMO	6354	O	HOH	W	107	44.180	52.426	14.928	1.00	53.12	W O
ÁTOMO	6355	O	HOH	W	108	45.966	31.344	10.771	1.00	64.16	W O
ÁTOMO	6356	O	HOH	W	110	50.431	24.443	9.057	1.00	57.10	W O
ÁTOMO	6357	O	HOH	W	111	60.167	46.654	-5.172	1.00	82.35	W O
ÁTOMO	6358	O	HOH	W	112	53.600	25.361	9.729	1.00	80.85	W O
ÁTOMO	6359	O	HOH	W	113	24.145	20.686	-4.121	1.00	82.35	W O
ÁTOMO	6360	O	HOH	W	114	24.876	23.040	-17.596	1.00	66.24	W O
ÁTOMO	6361	O	HOH	W	115	51.643	3.467	3.813	1.00	69.60	W O
ÁTOMO	6362	O	HOH	W	116	37.627	61.517	4.930	1.00	61.35	W O
ÁTOMO	6363	O	HOH	W	117	54.093	37.319	-7.747	1.00	63.69	W O
ÁTOMO	6364	O	HOH	W	118	27.162	50.144	-5.258	1.00	63.24	W O
ÁTOMO	6365	O	HOH	W	119	51.286	63.607	8.442	1.00	55.40	W O
ÁTOMO	6366	O	HOH	W	120	49.202	62.361	7.879	1.00	56.22	W O
ÁTOMO	6367	O	HOH	W	121	28.413	38.641	11.608	1.00	58.68	W O
ÁTOMO	6368	O	HOH	W	122	54.149	22.502	-12.184	1.00	58.04	W O
ÁTOMO	6369	O	HOH	W	123	42.924	49.950	-5.329	1.00	55.71	W O
ÁTOMO	6370	O	HOH	W	124	55.168	8.794	0.302	1.00	56.19	W O
ÁTOMO	6371	O	HOH	W	125	30.285	12.190	-25.537	1.00	55.20	W O
ÁTOMO	6372	O	HOH	W	126	28.498	1.566	-1.711	1.00	65.33	W O
ÁTOMO	6373	O	HOH	W	127	29.591	65.606	8.390	1.00	77.20	W O
ÁTOMO	6374	O	HOH	W	128	36.172	56.763	14.794	1.00	66.67	W O
ÁTOMO	6375	O	HOH	W	129	42.258	8.230	-13.604	1.00	65.20	W O
ÁTOMO	6376	O	HOH	W	130	46.138	51.846	16.640	1.00	54.65	W O
ÁTOMO	6377	O	HOH	W	131	27.630	60.434	19.677	1.00	59.03	W O
ÁTOMO	6378	O	HOH	W	132	45.177	68.255	-15.282	1.00	83.69	W O
ÁTOMO	6379	O	HOH	W	133	20.606	52.417	4.041	1.00	68.39	W O
ÁTOMO	6380	O	HOH	W	134	29.093	9.721	-4.723	1.00	97.13	W O
ÁTOMO	6381	O	HOH	W	136	51.100	80.703	-12.102	1.00	69.57	W O
ÁTOMO	6382	O	HOH	W	137	21.223	52.941	19.573	1.00	89.91	W O
ÁTOMO	6383	O	HOH	W	138	39.908	48.609	13.428	1.00	54.77	W O
ÁTOMO	6384	O	HOH	W	139	22.630	41.252	3.257	1.00	75.57	W O
ÁTOMO	6385	O	HOH	W	140	55.368	43.479	-8.878	1.00	50.93	W O
ÁTOMO	6386	O	HOH	W	142	25.657	65.193	-1.065	1.00	56.79	W O
ÁTOMO	6387	O	HOH	W	143	21.041	43.339	2.736	1.00	79.16	W O
ÁTOMO	6388	O	HOH	W	144	51.583	5.155	-0.072	1.00	68.07	W O
ÁTOMO	6389	O	HOH	W	145	32.286	-14.727	-19.514	1.00	82.03	W O
ÁTOMO	6390	O	HOH	W	146	41.985	68.503	1.865	1.00	84.68	W O
ÁTOMO	6391	O	HOH	W	147	34.846	77.589	-31.096	1.00	87.07	W O
ÁTOMO	6392	O	HOH	W	148	48.125	34.528	-8.668	1.00	64.10	W O
ÁTOMO	6393	O	HOH	W	149	59.944	18.444	-11.075	1.00	80.97	W O
ÁTOMO	6394	O	HOH	W	150	61.671	43.988	18.926	1.00	73.57	W O
ÁTOMO	6395	O	HOH	W	151	53.973	39.898	-6.529	1.00	63.01	W O
ÁTOMO	6396	O	HOH	W	152	33.054	13.127	-22.134	1.00	46.54	W O
ÁTOMO	6397	O	HOH	W	153	40.317	33.419	9.150	1.00	64.69	W O
ÁTOMO	6398	O	HOH	W	154	49.628	68.076	-0.443	1.00	66.41	W O
ÁTOMO	6399	O	HOH	W	155	40.949	12.531	1.841	1.00	57.31	W O
ÁTOMO	6400	O	HOH	W	156	39.019	24.898	8.414	1.00	67.94	W O
ÁTOMO	6401	O	HOH	W	157	42.102	51.146	16.080	1.00	68.46	W O
ÁTOMO	6402	O	HOH	W	158	48.299	4.489	-2.634	1.00	56.56	W O
ÁTOMO	6403	O	HOH	W	159	49.392	30.418	-9.479	1.00	58.57	W O
ÁTOMO	6404	O	HOH	W	160	45.974	71.344	-7.813	1.00	68.35	W O
ÁTOMO	6405	O	HOH	W	161	62.463	57.842	8.393	1.00	68.93	W O
ÁTOMO	6406	O	HOH	W	162	62.314	3.853	-8.007	1.00	72.85	W O
ÁTOMO	6407	O	HOH	W	163	48.708	28.590	-11.402	1.00	70.46	W O
ÁTOMO	6408	O	HOH	W	164	26.594	22.894	-11.356	1.00	72.66	W O
ÁTOMO	6409	O	HOH	W	165	27.650	57.278	-2.348	1.00	75.27	W O

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ATOMO 6410 O   HOH W 166      27.594 60.020  0.150  1.00 62.76 W  O
ATOMO 6411 O   HOH W 167      43.450 54.030 -6.900  1.00 85.08 W  O
ATOMO 6412 O   HOH W 168      38.122 59.238 -1.849  1.00 56.87 W  O
ATOMO 6413 O   HOH W 169      27.129 39.301 13.729  1.00 68.09 W  O
ATOMO 6414 O   HOH W 170      62.114  9.622  5.962  1.00 50.86 W  O
ATOMO 6415 O   HOH W 171      46.578 59.161 -10.262 1.00 77.64 W  O
ATOMO 6416 O   HOH W 172      48.228 52.442 14.549  1.00 51.18 W  O
ATOMO 6417 O   HOH W 173      70.197  2.753 -7.042  1.00 87.49 W  O
ATOMO 6418 O   HOH W 174      64.004  2.450 -6.765  1.00 69.28 W  O
ATOMO 6419 O   HOH W 175      42.696 -4.990 -18.564 1.00 72.72 W  O
ATOMO 6420 O   HOH W 177      18.059 23.624 -13.442 1.00 101.30W  O
ATOMO 6421 O   HOH W 180      15.355 21.664 -29.333 1.00 68.26 W  O
ATOMO 6422 O   HOH W 181      35.274 18.207 -15.496 1.00 81.17 W  O
ATOMO 6423 O   HOH W 182      37.734 20.058 -17.674 1.00 76.65 W  O
ATOMO 6424 O   HOH W 183       4.398  9.996 -27.101 1.00 73.23 W  O
ATOMO 6425 O   HOH W 184      25.726 62.296 18.755  1.00 68.08 W  O
ATOMO 6426 O   HOH W 185      55.967  5.969  6.509  1.00 63.28 W  O
ATOMO 6427 O   HOH W 186      52.635 32.458 16.778  1.00 64.30 W  O
ATOMO 6428 O   HOH W 187      42.187 61.267  1.486  1.00 63.63 W  O
ATOMO 6429 O   HOH W 188      54.080 67.804  9.345  1.00 73.07 W  O
ATOMO 6430 O   HOH W 191      39.373 49.817 15.778  1.00 73.96 W  O
ATOMO 6431 O   HOH W 192      30.145 48.697 18.491  1.00 67.43 W  O
ATOMO 6432 O   HOH W 193      58.517 28.333 -10.692 1.00 64.51 W  O
ATOMO 6433 O   HOH W 194      66.066 47.014  5.586  1.00 70.05 W  O
ATOMO 6434 O   HOH W 195      60.708 45.623 -2.248  1.00 54.73 W  O
ATOMO 6435 O   HOH W 197      40.532 56.318 -5.957  1.00 61.38 W  O
ATOMO 6436 O   HOH W 198      59.085 42.157 -5.617  1.00 63.62 W  O
ATOMO 6437 O   HOH W 199      58.018 28.117  9.569  1.00 59.02 W  O
ATOMO 6438 O   HOH W 200      62.084 19.823 -10.491 1.00 91.05 W  O
ATOMO 6439 O   HOH W 201      71.317 -2.871  5.295  1.00 80.75 W  O
ATOMO 6440 O   HOH W 202      25.844 56.209 -4.399  1.00 67.04 W  O
ATOMO 6441 O   HOH W 203      50.532 31.124 13.305  1.00 78.61 W  O
ATOMO 6442 O   HOH W 204      25.247 43.277  5.774  1.00 53.65 W  O
ATOMO 6443 O   HOH W 205      53.767 36.272 -4.050  1.00 82.87 W  O
ATOMO 6444 O   HOH W 206      53.294 78.768 -11.698 1.00 56.03 W  O
ATOMO 6445 O   HOH W 207      47.425 27.397 11.529  1.00 75.72 W  O
ATOMO 6446 O   HOH W 208      51.605 34.818 15.792  1.00 75.55 W  O
ATOMO 6447 O   HOH W 209      43.903 15.886 -13.465 1.00 74.13 W  O
ATOMO 6448 O   HOH W 210      46.556 14.040 -14.514 1.00 91.12 W  O
ATOMO 6449 O   HOH W 211      40.263 22.624 -18.077 1.00 89.07 W  O
ATOMO 6450 O   HOH W 213      55.658  6.616 -2.956  1.00 84.65 W  O
ATOMO 6451 O   HOH W 214      58.186 32.450  2.029  1.00 61.74 W  O
ATOMO 6452 O   HOH W 215      58.141 37.758  1.259  1.00 61.98 W  O
ATOMO 6453 O   HOH W 216      56.966 35.250  2.674  1.00 57.55 W  O
ATOMO 6454 O   HOH W 217      55.211 32.727 -4.777  1.00 53.03 W  O
ATOMO 6455 O   HOH W 218      52.367 31.257 -12.864 1.00 74.72 W  O
ATOMO 6456 O   HOH W 220      56.462 36.886 -6.283  1.00 63.55 W  O
ATOMO 6457 O   HOH W 224      29.998 24.261 -5.658  1.00 60.64 W  O
ATOMO 6458 O   HOH W 225      24.007  3.807 -7.206  1.00 62.70 W  O
ATOMO 6459 O   HOH W 226      45.167 21.855 11.818  1.00 88.68 W  O
ATOMO 6460 O   HOH W 227      53.676 66.697 12.072  1.00 56.13 W  O
ATOMO 6461 O   HOH W 229      51.011 64.329 11.868  1.00 95.18 W  O
ATOMO 6462 O   HOH W 230      39.248 30.285 10.392  1.00 80.36 W  O
ATOMO 6463 O   HOH W 231      44.473 38.407 17.076  1.00 62.67 W  O
ATOMO 6464 O   HOH W 235      25.679  2.154 -15.868 1.00 53.86 W  O
ATOMO 6465 O   HOH W 236      32.236  5.660 -21.135 1.00 68.77 W  O
ATOMO 6466 O   HOH W 237      34.413 28.315  6.252  1.00 71.91 W  O
ATOMO 6467 O   HOH W 238      27.724 33.801  2.425  1.00 70.02 W  O
ATOMO 6468 O   HOH W 239      56.205 67.777  2.833  1.00 75.06 W  O
ATOMO 6469 O   HOH W 240      66.188 51.600 -3.826  1.00 72.09 W  O
ATOMO 6470 O   HOH W 242      63.285 59.362  7.053  1.00 69.81 W  O
ATOMO 6471 O   HOH W 243      60.113 26.378 -1.506  1.00 76.04 W  O
ATOMO 6472 O   HOH W 244      57.113 41.670 20.487  1.00 55.69 W  O
ATOMO 6473 O   HOH W 245      46.457 68.175 -11.707 1.00 85.84 W  O
ATOMO 6474 O   HOH W 246      42.305  5.455 -2.908  1.00 75.40 W  O
ATOMO 6475 O   HOH W 247      32.141 54.995 -5.609  1.00 64.97 w  O
ATOMO 6476 O   HOH W 248      58.909 60.333 14.761  1.00 63.95 W  O
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ÁTOMO	6477	O	HOH W	249	38.763	42.049	16.135	1.00	67.39	W O
ÁTOMO	6478	O	HOH W	250	39.214	62.955	17.104	1.00	75.29	W O
ÁTOMO	6479	O	HOH W	252	60.671	39.189	7.433	1.00	55.23	W O
ÁTOMO	6480	O	HOH W	253	38.380	64.692	15.501	1.00	74.82	W O
ÁTOMO	6481	O	HOH W	254	44.133	17.210	-18.228	1.00	87.18	W O
ÁTOMO	6482	O	HOH W	255	32.114	36.860	-9.882	1.00	84.19	W O
ÁTOMO	6483	O	HOH W	256	46.385	47.101	-10.075	1.00	80.35	W O
ÁTOMO	6484	O	HOH W	257	48.734	74.644	-7.834	1.00	65.87	W O
ÁTOMO	6485	O	HOH W	258	40.889	36.343	13.840	1.00	58.72	W O
ÁTOMO	6486	O	HOH W	259	26.565	62.889	1.610	1.00	67.80	W O
ÁTOMO	6487	O	HOH W	260	48.882	1.237	-9.586	1.00	88.07	W O
ÁTOMO	6488	O	HOH W	261	17.126	54.786	10.638	1.00	79.86	W O
ÁTOMO	6489	O	HOH W	263	36.298	73.093	7.560	1.00	65.44	W O
ÁTOMO	6490	O	HOH W	264	39.791	69.041	4.490	1.00	78.57	W O
ÁTOMO	6491	O	HOH W	266	58.200	30.543	-12.662	1.00	86.34	W O
ÁTOMO	6492	O	HOH W	267	54.753	45.537	-11.451	1.00	73.79	W O
ÁTOMO	6493	O	HOH W	268	40.914	69.799	-20.286	1.00	77.77	W O
ÁTOMO	6494	O	HOH W	269	22.521	42.813	6.948	1.00	80.04	W O
ÁTOMO	6495	O	HOH W	270	31.954	46.535	-10.594	1.00	58.81	W O
ÁTOMO	6496	O	HOH W	271	33.809	27.047	-12.285	1.00	72.26	W O
ÁTOMO	6497	O	HOH W	272	67.372	52.181	-0.866	1.00	83.95	W O
ÁTOMO	6498	O	HOH W	273	49.002	32.971	-10.475	1.00	73.13	W O
ÁTOMO	6499	O	HOH W	274	36.608	60.824	14.598	1.00	81.86	W O
ÁTOMO	6500	O	HOH W	275	19.219	1.308	-19.062	1.00	55.79	W O

[a] Los residuos de aminoácidos de cadenas ligera (L) y pesada (H) se numeran de acuerdo con el sistema de numeración Chothia mostrado en las Tablas 6 y 7, respectivamente (Al-Lazikani *et al.*, *Tour. Mol. Biol.* 273:927-948, 1997). Los aminoácidos de IL-13Rα1 se numeran como se muestra en SEQ ID NO:12 (Fig. 14).

[b] Las columnas se marcan de acuerdo con el Formato de Banco de Datos de Proteínas, Versión 2.2.

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REIVINDICACIONES

1. Un anticuerpo cristalino, caracterizado porque comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

2. El anticuerpo cristalino de conformidad con la reivindicación 1, caracterizado porque tiene un grupo espacial $P2_12_12_1$.

3. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1 ó 2, caracterizado porque tiene dimensiones celulares unitarias a=54.4, b=98.0, c=108.5 y $\alpha=\beta=\gamma=90°$.

4. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-3, caracterizado porque proviene de un mamífero.

5. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-4, caracterizado porque proviene de un ratón, rata, conejo o cabra.

6. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-5, caracterizado porque comprende además un polipéptido IL-13 unido al anticuerpo.

7. El anticuerpo cristalino de conformidad con la reivindicación 6, caracterizado porque comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

8. El anticuerpo cristalino de conformidad con

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cualquiera de las reivindicaciones 1-7, caracterizado porque comprende un polipéptido que incluye la secuencia de aminoácidos de SEQ ID NO:1.

9. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-8, caracterizado porque comprende un polipéptido que incluye la secuencia de aminoácidos de SEQ ID NO:2.

10. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-9, caracterizado porque es un anticuerpo monoclonal.

11. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-10, caracterizado porque el anticuerpo es mAb13.2.

12. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-11, caracterizado porque es un fragmento mAb13.2 Fab.

13. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-12, caracterizado porque es capaz de unirse a una región de IL-13 que se une a un polipéptido IL-4R *in vivo*.

14. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-13, caracterizado porque puede difractar rayos X hasta una resolución de por lo menos aproximadamente 3.5 Å.

15. El anticuerpo cristalino de conformidad con

cualquiera de las reivindicaciones 1-14, caracterizado porque comprende las coordenadas estructurales de la tabla 10, +/- una desviación cuadrada media de raíz para átomos de carbono alfa de no más de 1.5 Å.

16. El anticuerpo cristalino de conformidad con cualquiera de las reivindicaciones 1-15, caracterizado porque:

la cadena ligera del anticuerpo comprende la secuencia de aminoácidos de SEQ ID NO:1;

la cadena pesada del anticuerpo comprende la secuencia de aminoácidos de SEQ ID NO:2 y

el anticuerpo cristalino difracta rayos X hasta una resolución de por lo menos aproximadamente 3.5 Å.

17. Una composición cristalina caracterizada porque comprende un anticuerpo, en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

18. La composición cristalina de conformidad con la reivindicación 17, caracterizada porque comprende además por lo menos una molécula de agua.

19. La composición cristalina de conformidad con cualquiera de las reivindicaciones 17 ó 18, caracterizada porque comprende además una sal o zinc.

20. La composición cristalina de conformidad con cualquiera de las reivindicaciones 17-19, caracterizada

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porque comprende además un polipéptido IL-13 unido al anticuerpo anti-IL-13 o fragmento Fab.

21. La composición cristalina de conformidad con la reivindicación 20, caracterizada porque comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

22. Un complejo cristalino, caracterizado porque comprende:

un polipéptido IL-13 y

un anticuerpo,

en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

23. El complejo cristalino de conformidad con la reivindicación 22, caracterizado porque tiene un grupo espacial $P2_13$.

24. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22 ó 23, caracterizado porque tiene dimensiones celulares unitarias a = b = c = 125.3 Å y $\alpha = \beta = \gamma = 90°$.

25. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-24, caracterizado porque el anticuerpo proviene de un mamífero.

26. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-25, caracterizado porque el anticuerpo proviene de un ratón.

27. El complejo cristalino de conformidad con

cualquiera de las reivindicaciones 22-26, caracterizado porque el polipéptido IL-13 proviene de un mamífero.

28. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-27, caracterizado porque el polipéptido IL-13 proviene de un humano.

29. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-28, caracterizado porque el anticuerpo comprende un polipéptido que incluye la secuencia de aminoácidos de SEQ ID NO:1.

30. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-29, caracterizado porque el anticuerpo comprende un polipéptido que incluye la secuencia de aminoácidos de SEQ ID NO:2.

31. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-30, caracterizado porque el anticuerpo es un anticuerpo monoclonal.

32. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-31, caracterizado porque el anticuerpo es mAb13.2.

33. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-32, caracterizado porque el anticuerpo es un fragmento mAb13.2 Fab.

34. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-33, caracterizado porque el anticuerpo se une a una región del polipéptido IL-

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13 que se une a un polipéptido IL-4R *in vivo*.

35. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-34, caracterizado el polipéptido IL-13 comprende una región que se une a un polipéptido IL-4R.

36. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-35, caracterizado porque el polipéptido IL-13 comprende la secuencia de aminoácidos de SEQ ID NO:4.

37. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-36, caracterizado porque el anticuerpo interactúa con uno o más residuos Ser7, Thr8, Ala9, Glu12, Leu48, Glu49, Ile52, Asn53, Arg65, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74 y Arg86 como se define por la secuencia de aminoácidos de SEQ ID NO:4.

38. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-37, caracterizado porque el polipéptido IL-13 interactúa con uno o más de los residuos Asn31, Tyr32, Lys34, Arg54, Asn96, Asp98 y Trp100 como los definidos por la secuencia de aminoácidos de SEQ ID NO:1 e Ile30, Ser31, Ala33, Trp47, Ser50, Ser52, Ser53, Tyr58, Leu98, Asp99, Gly100, Tyr101, Tyr102 y Phe103 como los definidos por la secuencia de aminoácidos de SEQ ID NO:2.

39. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-38, caracterizado

porque puede difractar rayos X hasta una resolución de por lo menos aproximadamente 3.5 Å.

40. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-38, caracterizado porque comprende las coordenadas estructurales de la tabla 11, +/- una desviación cuadrada media de raíz para átomos de carbono alfa de no más de 1.5 Å.

41. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 22-40, caracterizado porque comprende además un polipéptido IL-13Rα1.

42. Un complejo cristalino caracterizado porque comprende:

un polipéptido IL-13Rα1 y

un polipéptido IL-13.

43. El complejo cristalino de conformidad con la reivindicación 42, caracterizado porque el complejo cristalino tiene el grupo espacial I4.

44. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42 ó 43, caracterizado porque tiene dimensiones celulares unitarias a = b = 164.9 Å, c = 74.8 Å y $\alpha = \beta = \gamma = 90°$.

45. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42, 43 ó 44, caracterizado porque comprende además un anticuerpo,

en donde el anticuerpo comprende un anticuerpo

anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

46. El complejo cristalino de conformidad con la reivindicación 45, caracterizado porque el anticuerpo proviene de un mamífero.

47. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 45 ó 46, caracterizado porque el anticuerpo proviene de un ratón.

48. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-47, caracterizado porque el polipéptido IL-13 proviene de un mamífero.

49. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-48, caracterizado porque el polipéptido IL-13 proviene de un humano.

50. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 45 ó 46, caracterizado porque el anticuerpo es un anticuerpo monoclonal.

51. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 45 ó 46, caracterizado porque el anticuerpo es mAb13.2.

52. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 45 ó 46, caracterizado porque el anticuerpo es un fragmento mAb13.2 Fab.

53. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 45 ó 46, caracterizado porque el anticuerpo se une a una región del polipéptido IL-

13 que se une a un polipéptido IL-4R *in vivo*.

54. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-53, caracterizado el polipéptido IL-13 comprende una región que se une a un polipéptido IL-4R.

55. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-54, caracterizado porque el polipéptido IL-13Rα1 proviene de un mamífero.

56. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-55, caracterizado porque el polipéptido IL-13Rα1 proviene de un humano.

57. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-56, caracterizado porque el polipéptido IL-13 comprende la secuencia de aminoácidos de SEQ ID NO:4.

58. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-57, caracterizado porque el polipéptido IL-13Rα1 comprende la secuencia de aminoácidos de SEQ ID NO:12.

59. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 44 ó 46, caracterizado porque el anticuerpo interactúa con uno o más residuos Ser7, Thr8, Ala9, Glu12, Leu48, Glu49, Ile52, Asn53, Arg65, Met66, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74 y Arg86 como se define por la secuencia de aminoácidos de SEQ ID NO:4.

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60. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 45 ó 46, caracterizado porque el polipéptido IL-13 interactúa con uno o más de los residuos Asn31, Tyr32, Lys34, Arg54, Asn96, Asp98 y Trp100 como los definidos por la secuencia de aminoácidos de SEQ ID NO:1 e Ile30, Ser31, Ala33, Trp47, Ser50, Ser52, Ser53, Tyr58, Leu98, Asp99, Gly100, Tyr101, Tyr102 y Phe103 como los definidos por la secuencia de aminoácidos de SEQ ID NO:2.

61. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-60, caracterizado porque el polipéptido IL-13 interactúa con uno o más de los residuos Ile254, Ser255, Arg256, Lys318, Cys320, Tyr321, Lys76, Lys77, Ile78 y Ala79 como los definidos por la secuencia de aminoácidos de SEQ ID NO:12.

62. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-59, caracterizado porque el polipéptido IL-13Rα1 interactúa con uno o más residuos Arg11, Glu12, Leu13, Ile14, Glu15, Thr88, Lys89, Ile90, Glu91, Lys104, Lys105, Leu106, Phe107 y Arg108, como se define por la secuencia de aminoácidos de SEQ ID NO:4.

63. El complejo cristalino de conformidad con cualquiera de las reivindicaciones 42-62, caracterizado porque puede difractar rayos X hasta una resolución de por lo menos aproximadamente 3.5 Å.

64. El complejo cristalino de conformidad con

cualquiera de las reivindicaciones 42-63, caracterizado porque comprende las coordenadas estructurales de la tabla 12, +/- una desviación cuadrada media de raíz para átomos de carbono alfa de no más de 1.5 Å.

65. Un método caracterizado porque comprende:

usar un modelo tridimensional de un anticuerpo para diseñar un agente que interactúe con un polipéptido IL-13,

en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

66. El método de conformidad con la reivindicación 65, caracterizado porque el modelo tridimensional comprende una CDR del anticuerpo.

67. El método de conformidad con cualquiera de las reivindicaciones 65 ó 66, caracterizado porque el anticuerpo es un fragmento Fab de un anticuerpo anti-IL-13.

68. El método de conformidad con cualquiera de las reivindicaciones 65-67, caracterizado porque el anticuerpo comprende un polipéptido de cadena ligera que incluye la secuencia de aminoácidos de SEQ ID NO:1, y un polipéptido de cadena pesada que incluye la secuencia de aminoácidos de SEQ ID NO:2.

69. El método de conformidad con cualquiera de las reivindicaciones 65-68, caracterizado porque el anticuerpo es mAb13.2.

70. El método de conformidad con cualquiera de las

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reivindicaciones 65-69, caracterizado porque el anticuerpo es un fragmento mAb13.2 Fab.

71. El método de conformidad con cualquiera de las reivindicaciones 65-70, caracterizado porque el modelo tridimensional comprende coordenadas estructurales de átomos del anticuerpo.

72. El método de conformidad con la reivindicación 71, caracterizado porque las coordenadas estructurales son coordenadas determinadas experimentalmente.

73. El método de conformidad con cualquiera de las reivindicaciones 65-72, caracterizado porque el modelo tridimensional comprende coordenadas estructurales de un átomo seleccionado del grupo que consiste en los aminoácidos Asn31, Tyr32, Lys34, Arg54, Asn96, Asp98 y Trp100 como los definidos por la secuencia de aminoácidos de SEQ ID NO:1 e Ile30, Ser31, Ala33, Trp47, Ser50, Ser52, Ser53, Tyr58, Leu98, Asp99, Gly100, Tyr101, Tyr102 y Phe103 como los definidos por la secuencia de aminoácidos de SEQ ID NO:2.

74. El método de conformidad con cualquiera de las reivindicaciones 65-73, caracterizado porque el agente se une a una región del polipéptido IL-13 que se une a un polipéptido IL-4R *in vivo*.

75. El método de conformidad con la reivindicación 74, caracterizado porque el polipéptido IL-4R es un polipéptido IL-4Rα.

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76. El método de conformidad con cualquiera de las reivindicaciones 65-75, caracterizado porque el modelo tridimensional comprende un polipéptido IL-13 unido al anticuerpo.

77. El método de conformidad con la reivindicación 76, caracterizado porque el modelo tridimensional comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

78. Un método caracterizado porque comprende:

usar un modelo tridimensional de un polipéptido IL-13 para diseñar un agente que interactúe con el polipéptido IL-13.

79. El método de conformidad con la reivindicación 78, caracterizado porque el modelo tridimensional comprende además un anticuerpo unido al polipéptido IL-13, el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

80. El método de conformidad con la reivindicación 79, caracterizado porque el modelo tridimensional comprende coordenadas estructurales de átomos del anticuerpo.

81. El método de conformidad con cualquiera de las reivindicaciones 78-80, caracterizado porque el modelo tridimensional comprende una región del polipéptido IL-13 que se une a un polipéptido IL-4R *in vivo*.

82. El método de conformidad con cualquiera de las reivindicaciones 78-81, caracterizado porque el agente inhibe

la unión del polipéptido IL-13 a un polipéptido IL-4R.

83. El método de conformidad con cualquiera de las reivindicaciones 75-79, caracterizado porque el modelo tridimensional comprende coordenadas estructurales de átomos del polipéptido IL-13.

84. El método de conformidad con la reivindicación 83, caracterizado porque las coordenadas estructurales son coordenadas determinadas experimentalmente.

85. El método de conformidad con cualquiera de las reivindicaciones 83 u 84, caracterizado porque las coordenadas estructurales son de acuerdo con la tabla 11, +/- una desviación cuadrada media de raíz para átomos de carbono alfa de no más de 1.5 Å.

86. El método de conformidad con cualquiera de las reivindicaciones 78-85, caracterizado porque el modelo tridimensional comprende coordenadas estructurales de un átomo seleccionado del grupo que consiste en átomos de los aminoácidos Glu49, Asn53, Ser68, Gly69, Phe70, Cys71, Pro72, His73, Lys74 y Arg86 del polipéptido IL-13 como el definido por la secuencia de aminoácidos de SEQ ID NO:4.

87. El método de conformidad con cualquiera de las reivindicaciones 78-86, caracterizado porque el modelo tridimensional comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

88. El método de conformidad con la reivindicación

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87, caracterizado porque el modelo tridimensional comprende coordenadas estructurales de átomos del polipéptido IL-13Rα1.

89. Un método caracterizado porque comprende:

usar un modelo tridimensional de un polipéptido IL-13 unido a un polipéptido IL-13Rα1 para diseñar un agente que interactúe con el polipéptido IL-13.

90. El método de conformidad con la reivindicación 89, caracterizado porque el modelo tridimensional comprende además un anticuerpo unido al polipéptido IL-13, el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

91. El método de conformidad con cualquiera de las reivindicaciones 89 ó 90, caracterizado porque el agente inhibe la unión del polipéptido IL-13 a un polipéptido IL-4R.

92. El método de conformidad con cualquiera de las reivindicaciones 89-91, caracterizado porque el modelo tridimensional comprende coordenadas estructurales de átomos del polipéptido IL-13 y el polipéptido IL-13Rα1.

93. El método de conformidad con la reivindicación 92, caracterizado porque las coordenadas estructurales son coordenadas determinadas experimentalmente.

94. El método de conformidad con cualquiera de las reivindicaciones 92 ó 93, caracterizado porque las coordenadas estructurales son de acuerdo con la tabla 12, +/- una desviación cuadrada media de raíz para átomos de carbono

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alfa de no más de 1.5 Å.

95. Un método caracterizado porque comprende:

seleccionar un agente al llevar a cabo diseño racional de fármaco con un modelo tridimensional de un complejo cristalino que comprende un polipéptido IL-13;

poner en contacto el agente con un polipéptido IL-13 y

detectar la capacidad del agente para unirse al polipéptido IL-13.

96. El método de conformidad con la reivindicación 95, caracterizado porque el complejo cristalino de la estructura tridimensional comprende además un anticuerpo unido al polipéptido IL-13, el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

97. El método de conformidad con la reivindicación 96, caracterizado porque el anticuerpo anti-IL-13 o fragmento Fab de un anticuerpo anti-IL-13 es capaz de unirse a un sitio de un polipéptido IL-13 al cual une un polipéptido IL-4R *in vivo*.

98. El método de conformidad con cualquiera de las reivindicaciones 95-97, caracterizado porque el agente se selecciona por medio de modelado por computadora.

99. El método de conformidad con cualquiera de las reivindicaciones 95-98, caracterizado porque la estructura

tridimensional comprende coordenadas estructurales de la tabla 11, +/- una desviación cuadrada media de raíz para átomos de carbono alfa de no más de 1.5 Å.

100. El método de conformidad con cualquiera de las reivindicaciones 95-99, caracterizado porque el complejo cristalino de la estructura tridimensional comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

101. El método de conformidad con cualquiera de las reivindicaciones 95-100, caracterizado porque la estructura tridimensional comprende coordenadas estructurales de la tabla 12, +/- una desviación cuadrada media de raíz para átomos de carbono alfa de no más de 1.5 Å.

102. El método de conformidad con cualquiera de las reivindicaciones 95-101, caracterizado porque comprende además obtener el agente.

103. El método de conformidad con cualquiera de las reivindicaciones 95-102, caracterizado porque comprende además:

obtener un complejo cristalino complementario que comprende el polipéptido IL-13 y el agente;

determinar la estructura tridimensional del complejo cristalino complementario;

seleccionar un segundo agente al llevar a cabo diseño racional de fármaco con la estructura tridimensional del complejo cristalino complementario;

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poner en contacto el segundo agente con el polipéptido IL-13 y

detectar la capacidad del segundo agente para unirse al polipéptido IL-13.

104. El método de conformidad con la reivindicación 103, caracterizado porque el segundo agente se selecciona por medio de modelado por computadora.

105. El método de conformidad con cualquiera de las reivindicaciones 103 ó 104, caracterizado porque comprende además detectar una capacidad del segundo agente para inhibir la actividad de IL-13.

106. Un método caracterizado porque comprende:

poner en contacto un polipéptido IL-13 con un anticuerpo para formar una composición y

cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo se una al polipéptido IL-13,

en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

107. El método de conformidad con la reivindicación 106, caracterizado porque incluye usar difusión de vapor.

108. El método de conformidad con cualquiera de las reivindicaciones 106 ó 107, caracterizado porque el

anticuerpo es mAb13.2.

109. El método de conformidad con cualquiera de las reivindicaciones 106-108, caracterizado porque el anticuerpo es un fragmento mAb13.2 Fab.

110. Un método caracterizado porque comprende:

poner en contacto un polipéptido IL-13 con un anticuerpo y un polipéptido IL-13Rα1 para formar una composición y

cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo y el polipéptido IL-13Rα1 se unan cada uno al polipéptido IL-13,

en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

111. El método de conformidad con la reivindicación 110, caracterizado porque incluye usar difusión de vapor.

112. El método de conformidad con cualquiera de las reivindicaciones 110-111, caracterizado porque el anticuerpo es mAb13.2.

113. El método de conformidad con cualquiera de las reivindicaciones 110-112, caracterizado porque el anticuerpo es un fragmento mAb13.2 Fab.

114. Un sistema de software caracterizado porque comprende instrucciones para hacer que un sistema de

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computadora:

acepte información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13;

aceptar información que se refiera a un agente candidato y

determinar características de unión del agente candidato al polipéptido IL-13, en donde la determinación se basa en la información que se refiere a la estructura del polipéptido IL-13 y la información que se refiere al agente candidato.

115. El sistema de software de conformidad con la reivindicación 114, caracterizado porque la estructura del polipéptido IL-13 unido al anticuerpo es una estructura de cristal.

116. El sistema de software de conformidad con la reivindicación 115, caracterizado porque la estructura de cristal comprende las coordenadas estructurales de la tabla 11, +/- una desviación cuadrada media de raíz para átomos de carbono alfa de no más de 1.5 Å.

117. El sistema de software de conformidad con cualquiera de las reivindicaciones 106-108, caracterizado porque la estructura del polipéptido IL-13 unido al anticuerpo comprende además un polipéptido IL-13Rα1 unido al

polipéptido IL-13.

118. El sistema de software de conformidad con la reivindicación 117, caracterizado porque la estructura del polipéptido IL-13 unido al anticuerpo y el polipéptido IL-13Rα1 unido al polipéptido IL-13 es una estructura de cristal.

119. El sistema de software de conformidad con la reivindicación 118, caracterizado porque la estructura de cristal comprende las coordenadas estructurales de la tabla 12, +/- una desviación cuadrada media de raíz para átomos de carbono alfa de no más de 1.5 Å.

120. El sistema de software de conformidad con cualquiera de las reivindicaciones 114-119, caracterizado porque comprende además instrucciones para hacer que un sistema de computadora:

aplique información proveniente de una base de datos, la información se refiere a agentes candidatos y

identificar un agente candidato en la base de datos que pueda unirse al polipéptido IL-13,

en donde la identificación se basa en la información que se refiere a la estructura del polipéptido IL-13 e información que se refiere al agente candidato.

121. El sistema de software de conformidad con cualquiera de las reivindicaciones 114-120, caracterizado porque comprende además instrucciones para hacer que el

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sistema de computadora modele las características de unión del agente candidato con el polipéptido IL-13.

122. Un programa de computadora caracterizado porque reside en un medio legible por computadora que tiene una pluralidad de instrucciones almacenadas en el mismo, las cuales, cuando son ejecutadas por uno o más procesadores, hacen que el uno o más procesadores:

acepten información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo comprende un polipéptido anti-IL-13 o un fragmento Fab de un anticuerpo IL-13;

acepten información que se refiera a un agente candidato y

determinen características de unión del agente candidato al polipéptido IL-13,

en donde la determinación se basa en la información que se refiere a la estructura del polipéptido IL-13 e información que se refiere al agente candidato.

123. El programa de computadora de conformidad con la reivindicación 122, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

124. Un método caracterizado porque comprende:

aceptar información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo

comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13 y

modelar las características de unión del polipéptido IL-13 con un agente candidato,

en donde el método es implementado por un sistema de software.

125. El método de conformidad con la reivindicación 124, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

126. El método de conformidad con cualquiera de las reivindicaciones 124 ó 125, caracterizado porque comprende además aplicar información proveniente de una base de datos de agentes candidatos para identificar un agente candidato que pueda unirse al polipéptido IL-13,

en donde la identificación se basa en la información que se refiere a la estructura del polipéptido IL-13 e información que se refiere al agente candidato.

127. Un programa de computadora caracterizado porque reside en un medio legible por computadora que tiene una pluralidad de instrucciones almacenadas en el mismo, las cuales, cuando son ejecutadas por uno o más procesadores, hacen que el uno o más procesadores:

acepten información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo

comprende un polipéptido anti-IL-13 o un fragmento Fab de un anticuerpo IL-13 y

modelen las características de unión del polipéptido IL-13 con un agente candidato.

128. El programa de computadora de conformidad con la reivindicación 127, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

129. El programa de computadora de conformidad con cualquiera de las reivindicaciones 127 ó 128, caracterizado porque comprende además instrucciones que hacen que el uno o más procesadores:

apliquen información proveniente de una base de datos, la información se refiere a agentes candidatos y

identifiquen un agente candidato en la base de datos que pueda unirse al polipéptido IL-13,

en donde la identificación se base en la información que se refiere a la estructura del polipéptido IL-13.

130. El programa de computadora de conformidad con cualquiera de las reivindicaciones 127-129, caracterizado porque comprende además instrucciones que hacen que el uno o más procesadores modelen las características de unión del agente candidato con el polipéptido IL-13.

131. Un sistema de software caracterizado porque

comprende instrucciones para hacer que un sistema de computadora:

acepte información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13 y

modele las características de unión del polipéptido IL-13 con un agente candidato.

132. El método de conformidad con la reivindicación 131, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

133. Un anticuerpo cristalino, caracterizado porque el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

134. Una composición cristalina que comprende un anticuerpo, caracterizada porque el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

135. Un complejo cristalino, caracterizado porque comprende:

un polipéptido IL-13 y

un anticuerpo,

en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un

polipéptido IL-4R.

136. Un complejo cristalino, caracterizado porque comprende:

un polipéptido IL-13;

un polipéptido IL-13Rα1 y

un anticuerpo,

en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

137. Un método caracterizado porque comprende:

usar un modelo tridimensional de un anticuerpo para diseñar un agente que interactúe con un polipéptido IL-13,

en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

138. El método de conformidad con la reivindicación 137, caracterizado porque el modelo tridimensional comprende coordenadas estructurales de átomos del anticuerpo.

139. Un método caracterizado porque comprende:

poner en contacto un polipéptido IL-13 con un anticuerpo para formar una composición y

cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo se una al polipéptido IL-13,

en donde el anticuerpo es capaz de unirse a un

sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

140. Un método caracterizado porque comprende:

poner en contacto un polipéptido IL-13 con un anticuerpo y un polipéptido IL-13Rα1 para formar una composición y

cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo y el polipéptido IL-13Rα1 se unan cada uno al polipéptido IL-13,

en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

141. Un sistema de software caracterizado porque comprende instrucciones para hacer que un sistema de computadora:

acepte información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R;

aceptar información que se refiera a un agente candidato y

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determinar características de unión del agente candidato al polipéptido IL-13, en donde la determinación se basa en la información que se refiere a la estructura del polipéptido IL-13 y la información que se refiere al agente candidato.

142. El sistema de software de conformidad con la reivindicación 141, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

143. Un programa de computadora caracterizado porque reside en un medio legible por computadora que tiene una pluralidad de instrucciones almacenadas en el mismo, las cuales, cuando son ejecutadas por uno o más procesadores, hacen que el uno o más procesadores:

acepten información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R;

acepten información que se refiera a un agente candidato y

determinen características de unión del agente candidato al polipéptido IL-13,

en donde la determinación se basa en la información que se refiere a la estructura del polipéptido IL-13 e información que se refiere al agente candidato.

144. El programa de computadora de conformidad con la reivindicación 143, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

145. Un método caracterizado porque comprende:

aceptar información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R y

modelar las características de unión del polipéptido IL-13 con un agente candidato,

en donde el método es implementado por un sistema de software.

146. El método de conformidad con la reivindicación 145, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

147. Un programa de computadora caracterizado porque reside en un medio legible por computadora que tiene una pluralidad de instrucciones almacenadas en el mismo, las cuales, cuando son ejecutadas por uno o más procesadores, hacen que el uno o más procesadores:

acepten información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al

cual se une *in vivo* un polipéptido IL-4R y

modelen las características de unión del polipéptido IL-13 con un agente candidato.

148. El programa de computadora de conformidad con la reivindicación 147, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

149. Un sistema de software caracterizado porque comprende instrucciones para hacer que un sistema de computadora:

acepte información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R y

modele las características de unión del polipéptido IL-13 con un agente candidato.

150. El sistema de software de conformidad con la reivindicación 149, caracterizado porque la estructura del polipéptido IL-13 unido a un anticuerpo comprende además un polipéptido IL-13Rα1 unido al polipéptido IL-13.

151. Un método para modular la actividad de IL-13 en un sujeto, caracterizado porque comprende:

usar diseño racional de fármacos para seleccionar un agente que sea capaz de modular la actividad de IL-13 y

administrar una cantidad terapéuticamente efectiva

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del agente al sujeto.

152. El método de conformidad con la reivindicación 151, caracterizado porque el diseño racional de fármacos incluye usar una estructura tridimensional de un complejo cristalino que comprende un polipéptido IL-13.

153. El método de conformidad con la reivindicación 152, caracterizado porque el complejo cristalino comprende además un anticuerpo, el anticuerpo es un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

154. El método de conformidad con cualquiera de las reivindicaciones 152 ó 153, caracterizado porque el complejo cristalino comprende además un anticuerpo, que es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

155. El método de conformidad con cualquiera de las reivindicaciones 152-154, caracterizado porque el complejo cristalino comprende además un polipéptido IL-13Rα1.

156. Un método para tratar un sujeto que tenga una condición asociada con actividad de IL-13, caracterizado porque comprende:

usar diseño racional de fármacos para seleccionar un agente que sea capaz de efectuar actividad de IL-13 y

administrar una cantidad terapéuticamente efectiva del agente a un sujeto en necesidad del mismo.

157. El método de conformidad con la reivindicación

156, caracterizado porque la condición es asma.

158. El método de conformidad con cualquiera de las reivindicaciones 156 ó 157, caracterizado porque la condición es asma alérgica o asma no alérgica.

159. El método de conformidad con la reivindicación 156, caracterizado porque la condición comprende al menos una condición seleccionada del grupo que consiste en cáncer, inflamación de la vía aérea, eosinofilia, fibrosis, producción excesiva de moco, una condición inflamatoria de la piel, órganos gastrointestinales, vasos sanguíneos o tejido conectivo, y una condición autoinmune de la piel, órganos gastrointestinales, vasos sanguíneos o tejido conectivo.

160. El método de conformidad con la reivindicación 156, caracterizado porque la condición comprende al menos una condición seleccionada del grupo que consiste en trastorno pulmonar obstructivo crónico, fibrosis cística, fibrosis pulmonar, rinitis alérgica, dermatitis atópica, enfermedad inflamatoria del intestino, enfermedad de Crohn, cirrosis, esclerodermа o linfoma de Hodgkin.

161. Un método para tratar profilácticamente un sujeto susceptible a una condición asociada con actividad de IL-13, caracterizado porque comprende:

determinar que el sujeto sea susceptible a la condición asociada con actividad de IL-13;

usar diseño racional de fármacos para seleccionar

un agente que sea capaz de efectuar actividad de IL-13 y

administrar una cantidad terapéuticamente efectiva del agente al sujeto.

162. El método de conformidad con la reivindicación 161, caracterizado porque la condición es asma.

163. El método de conformidad con cualquiera de las reivindicaciones 161 ó 162, caracterizado porque la condición es asma alérgica o asma no alérgica.

164. El método de conformidad con la reivindicación 161, caracterizado porque la condición comprende al menos una condición seleccionada del grupo que consiste en cáncer, inflamación de la vía aérea, eosinofilia, fibrosis, producción excesiva de moco, una condición inflamatoria de la piel, órganos gastrointestinales, vasos sanguíneos o tejido conectivo, y una condición autoinmune de la piel, órganos gastrointestinales, vasos sanguíneos o tejido conectivo.

165. El método de conformidad con la reivindicación 161, caracterizado porque la condición comprende al menos una condición seleccionada del grupo que consiste en trastorno pulmonar obstructivo crónico, fibrosis cística, fibrosis pulmonar, rinitis alérgica, dermatitis atópica, enfermedad inflamatoria del intestino, enfermedad de Crohn, cirrosis, escleroderma o linfoma de Hodgkin.

166. El método de conformidad con cualquiera de las reivindicaciones 161-165, caracterizado porque el agente se

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une al polipéptido IL-13 al interactuar hasta dentro del alrededor de 2.0 Å con uno o más de los aminoácidos Glu49, Asn53, Gly69, Pro72, His73, Lys74 y Arg86, como los definidos por la secuencia de aminoácidos de SEQ ID NO:4.

167. Uso de un agente diseñado o seleccionado de conformidad con cualquiera de las reivindicaciones 64-97 ó 129 ó 130, en la preparación de un medicamento para la profilaxis o el tratamiento de una condición asociada con actividad de IL-13.

168. El uso de conformidad con la reivindicación 167, en donde el agente es capaz de inhibir la actividad de IL-13.

169. El uso de conformidad con cualquiera de las reivindicaciones 167 ó 168, en donde el agente es capaz de inhibir la actividad de IL-13 *in vivo*.

170. El uso de conformidad con cualquiera de las reivindicaciones 167, 168 ó 169, en donde la condición es asma.

171. El uso de conformidad con cualquiera de las reivindicaciones 167-170, en donde la condición es asma alérgica o asma no alérgica.

172. El uso de conformidad con cualquiera de las reivindicaciones 167-170, en donde la condición comprende al menos una condición seleccionada del grupo que consiste en cáncer, inflamación de la vía aérea, eosinofilia, fibrosis,

producción excesiva de moco, una condición inflamatoria de la piel, órganos gastrointestinales, vasos sanguíneos o tejido conectivo, y una condición autoinmune de la piel, órganos gastrointestinales, vasos sanguíneos o tejido conectivo.

173. El uso de conformidad con cualquiera de las reivindicaciones 167-170, en donde la condición comprende al menos una condición seleccionada del grupo que consiste en trastorno pulmonar obstructivo crónico, fibrosis cística, fibrosis pulmonar, rinitis alérgica, dermatitis atópica, enfermedad inflamatoria del intestino, enfermedad de Crohn, cirrosis, escleroderma o linfoma de Hodgkin.

174. El uso de conformidad con cualquiera de las reivindicaciones 167-173, en donde el agente se une al polipéptido IL-13 al interactuar hasta dentro del alrededor de 2.0 Å con uno o más de los aminoácidos Glu49, Asn53, Gly69, Pro72, His73, Lys74 y Arg86, como los definidos por la secuencia de aminoácidos de SEQ ID NO:4.

175. Un agente caracterizado porque se diseña o selecciona de conformidad con cualquiera de las reivindicaciones 65-105 ó 129 ó 130, para usarse en la profilaxis o el tratamiento de una condición asociada con actividad de IL-13.

176. El agente de conformidad con la reivindicación 175, caracterizado porque es capaz de inhibir la actividad de IL-13.

177. El agente de conformidad con cualquiera de las reivindicaciones 175 ó 176, caracterizado porque es capaz de inhibir la actividad de IL-13 *in vivo*.

178. El agente de conformidad con cualquiera de las reivindicaciones 175, 176 ó 177, caracterizado porque la condición es asma.

179. El agente de conformidad con cualquiera de las reivindicaciones 175-178, caracterizado porque la condición es asma alérgica o asma no alérgica.

180. El agente de conformidad con cualquiera de las reivindicaciones 175-177, caracterizado porque la condición comprende al menos una condición seleccionada del grupo que consiste en cáncer, inflamación de la vía aérea, eosinofilia, fibrosis, producción excesiva de moco, una condición inflamatoria de la piel, órganos gastrointestinales, vasos sanguíneos o tejido conectivo, y una condición autoinmune de la piel, órganos gastrointestinales, vasos sanguíneos o tejido conectivo.

181. El agente de conformidad con cualquiera de las reivindicaciones 175-177, caracterizado porque la condición comprende al menos una condición seleccionada del grupo que consiste en trastorno pulmonar obstructivo crónico, fibrosis cística, fibrosis pulmonar, rinitis alérgica, dermatitis atópica, enfermedad inflamatoria del intestino, enfermedad de Crohn, cirrosis, escleroderma o linfoma de Hodgkin.

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182. El agente de conformidad con cualquiera de las reivindicaciones 175-181, caracterizado porque el agente se une al polipéptido IL-13 al interactuar hasta dentro del alrededor de 2.0 Å con uno o más de los aminoácidos Glu49, Asn53, Gly69, Pro72, His73, Lys74 y Arg86, como los definidos por la secuencia de aminoácidos de SEQ ID NO:4.

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RESUMEN DE LA INVENCIÓN

Se describen anticuerpos anti-IL-13, cristales de anticuerpos anti-IL-13, complejos polipéptido IL-13/anticuerpo anti-IL-13, cristales de complejos polipéptido IL-13/anticuerpo anti-IL-13, complejos polipéptido IL-13Rα1/polipéptido IL-13/anticuerpo anti-IL-13, cristales de complejos polipéptido IL-13Rα1/polipéptido IL-13/anticuerpo anti-IL-13, y métodos y sistemas de software relacionados.

```
1    DIVLTQSPAS LAVSLGQRAT ISCKASESVD NYGKSLMHWY QQKPGQSPKL
51   LIYRASNLES GIPARFSGSG SRTDFTLTIN PVEADDVATY YCQQSNEDPW
101  TFGGGTKLEI KRADAAPTVS IFPPSSEQLT SGGASVVCFL NNFYPKDINV
151  KWKIDGSERQ NGVLNSWTDQ DSKDSTYSMS STLTLTKDEY ERHNSYTCEA
201  THKTSTSPIV KSFNRNEC
```

(SEQ ID NO:1) Ligera

FIG. 1A

```
1    EVKLVESGGG LVKPGGSLKL SCAASGFTFI SYAMSWVRQT PEKRLEWVAS
51   ISSGGNTYYP DSVKGRFTIS RDNARNILYL QMSSLRSEDT AMYYCARLDG
101  YYFGFAYWGQ GTLVAVSAAK TTPPSVYPLA PGSAAQTNSM VTLGCLVKGY
151  FPEPVTVTWN SGSLSSGVHT FPAVLESDLY TLSSSVTVPS SPRPSETVTC
201  NVAHPASSTK VDKKI
```

(SEQ ID NO:2) Pesada

FIG. 1B

1 MALLLTTVIA LTCLGGFAS/P GPVPPSTALR ELIEELVNIT QNQKAPLCNG
51 SMVWSINLTA GMYCAALESL INVSGCSAIE KTQRMLSGFC PHKVSAGQFS
101 SLHVRDTKIE VAQFVKDLLL HLKKLFREGR FN

(SEQ ID NO:3) IL-13

FIG. 2A

1 PGPVPPSTAL RELIEELVNI TQNQKAPLCN GSMVWSINLT AGMYCAALES
51 LINVSGCSAI EKTQRMLSGF CPHKVSAGQF SSLHVRDTKI EVAQFVKDLL
101 LHLKKLFREG RFN

(SEQ ID NO:4) IL-13 procesada

FIG. 2B

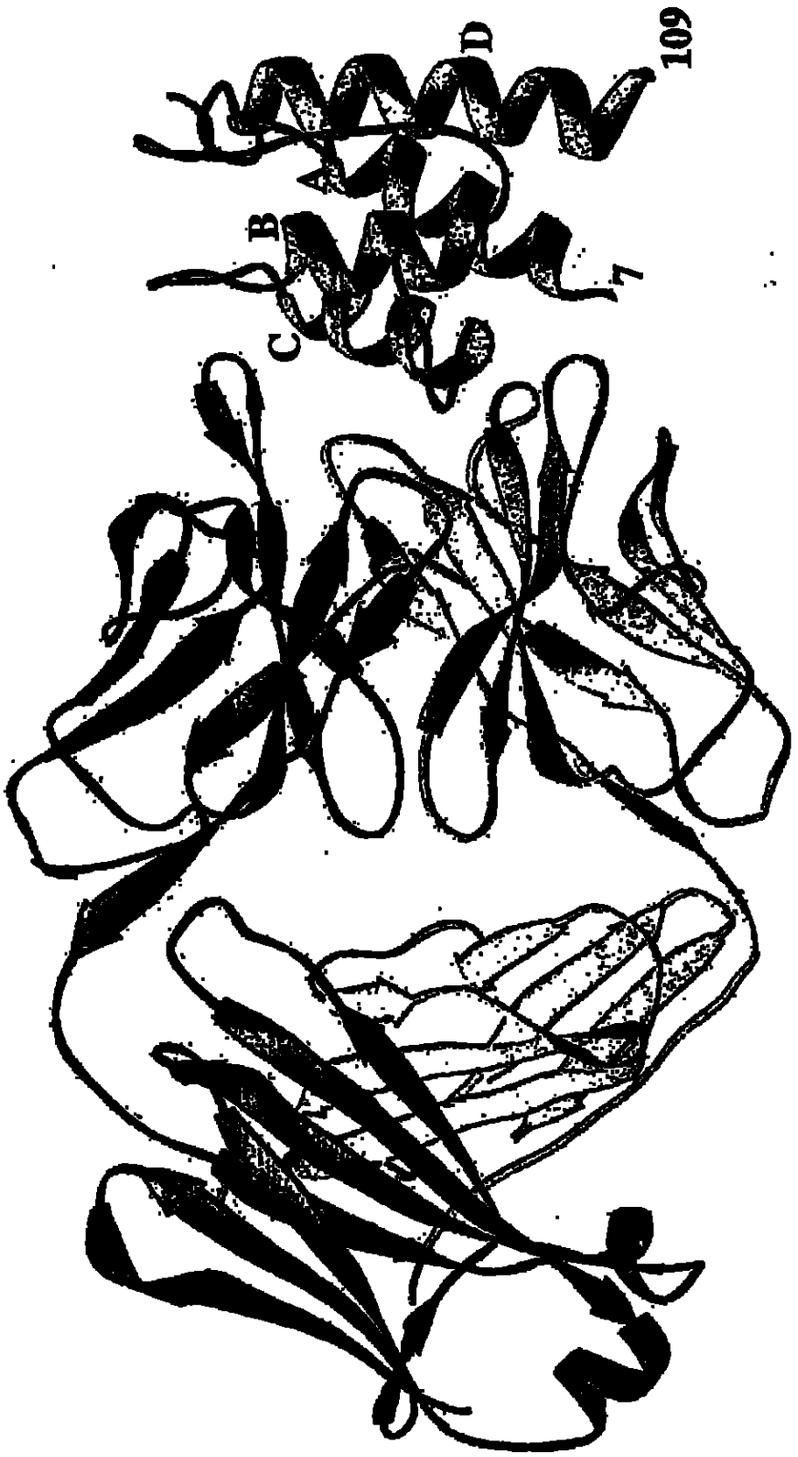


FIG. 3

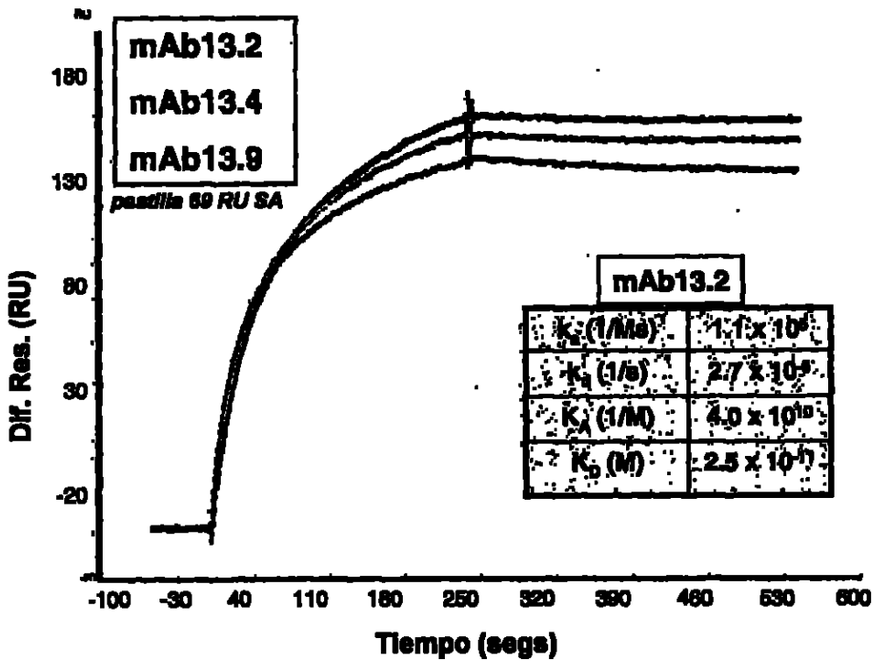

mAb13.2
mAb13.4
mAb13.9
pastilla 69 RU SA
mAb13.2
k_a (1/Ms) 1.1 x 10^6
k_d (1/s) 2.7 x 10^{-5}
K_A (1/M) 4.0 x 10^{10}
K_D (M) 2.5 x 10^{-11}
Dif. Res. (RU)
180
130
80
30
-20
-100
-30
40
110
180
250
320
390
460
530
600
Tiempo (segs)

FIG. 4

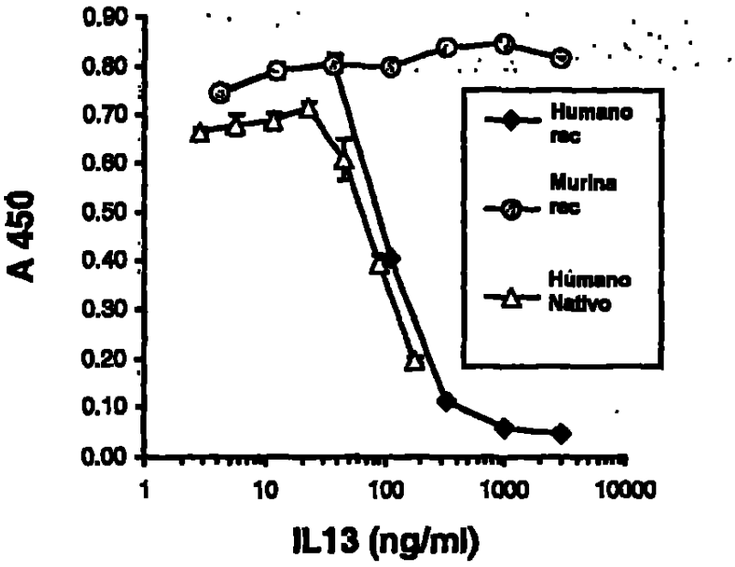

0.90
0.80
0.70
0.60
0.50
0.40
0.30
0.20
0.10
0.00
A 450
1
10
100
1000
10000
IL13 (ng/ml)
Humano rec
Murina rec
Húmano Nativo

FIG. 5

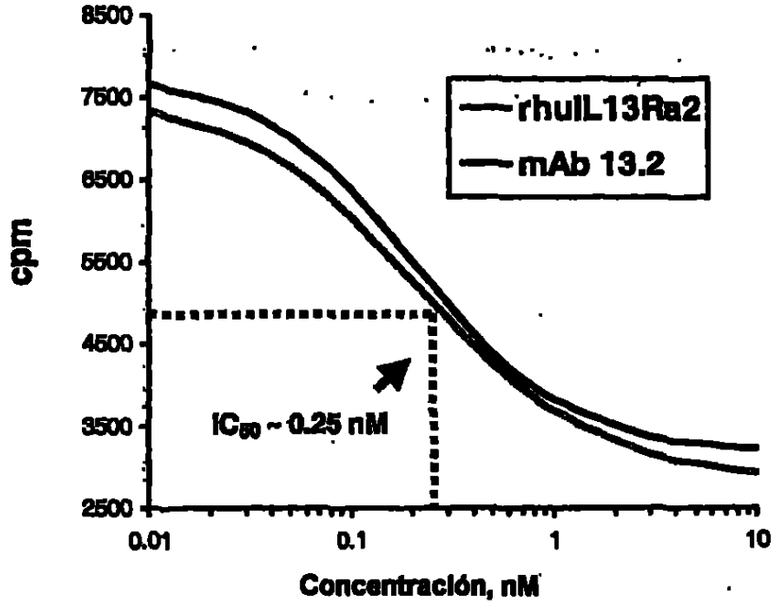
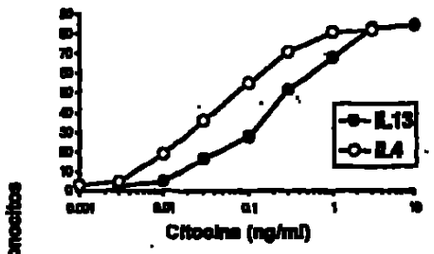

8500
7500
6500
5500
4500
3500
2500
cpm
rhuIL13Ra2
mAb 13.2
IC50 ~ 0.25 nM
0.01
0.1
1
10
Concentración, nM

FIG. 6

FIG. 7A



Tanto IL13 e IL4 inducen la expresión CD23 en monocitos humanos.

mAb13.2 inhibe bioactividad de IL13 pero no de IL4.

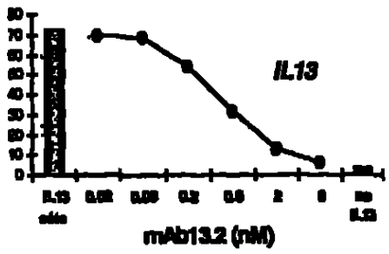


FIG. 7B

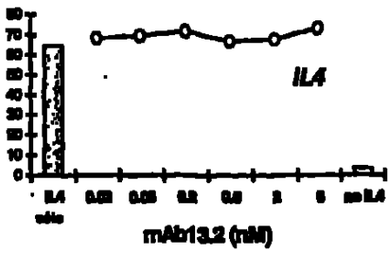


FIG. 7C

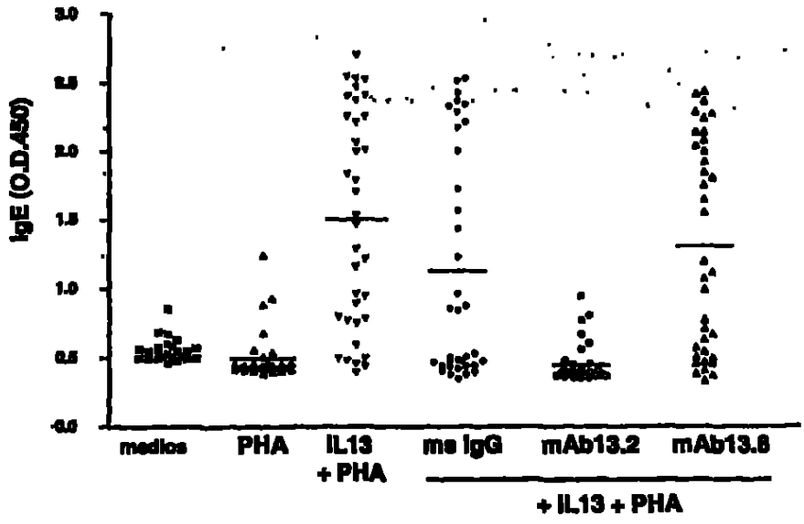

IgE (O.D.450)
3.0
2.5
2.0
1.5
1.0
0.5
0.0
medios
PHA
IL13 + PHA
ms IgG
mAb13.2
mAb13.8
+ IL13 + PHA

FIG. 8

FIG. 9A

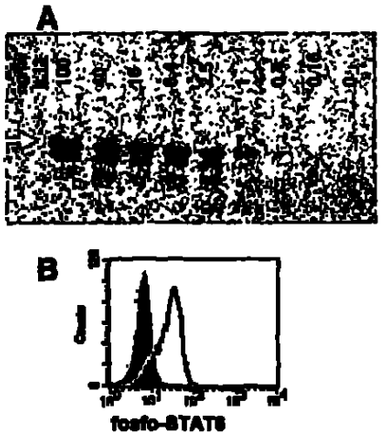
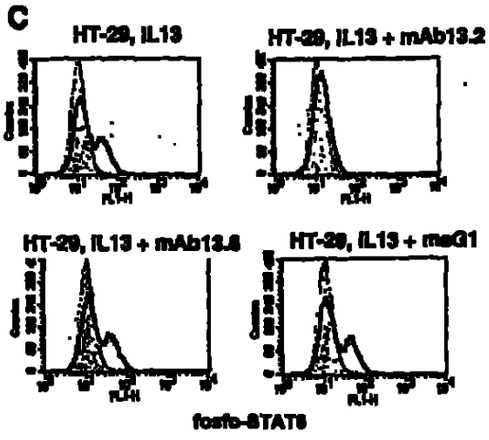


FIG. 9B

FIG. 9C



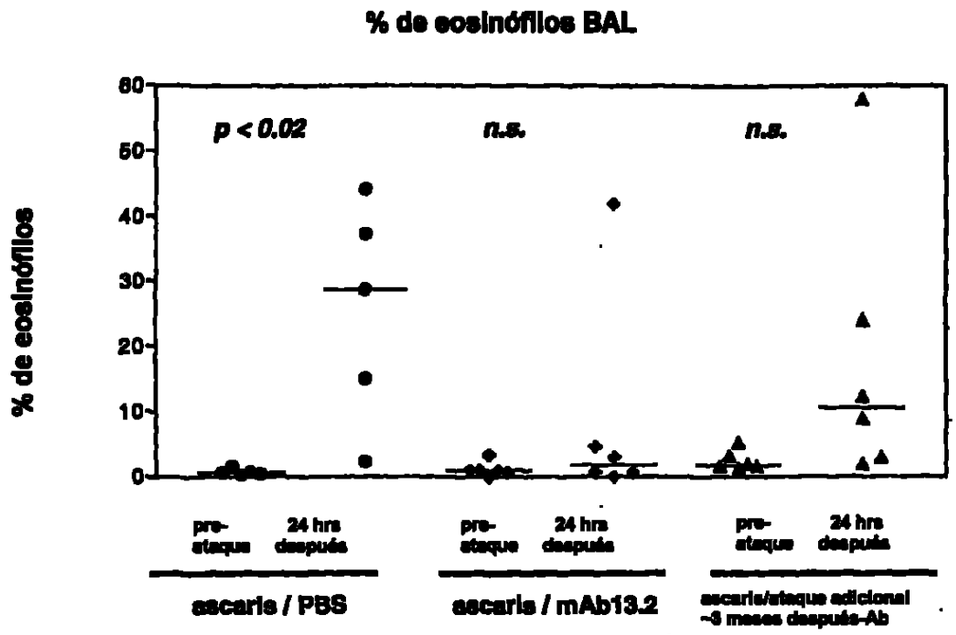

% de eosinófilos BAL
% de eosinófilos
60
50
40
30
20
10
0
p < 0.02
n.s.
n.s.
pre-ataque
24 hrs después
pre-ataque
24 hrs después
pre-ataque
24 hrs después
ascaris / PBS
ascaris / mAb13.2
ascaris/ataque adicional ~8 meses después-Ab

FIG. 10

FIG. 11A

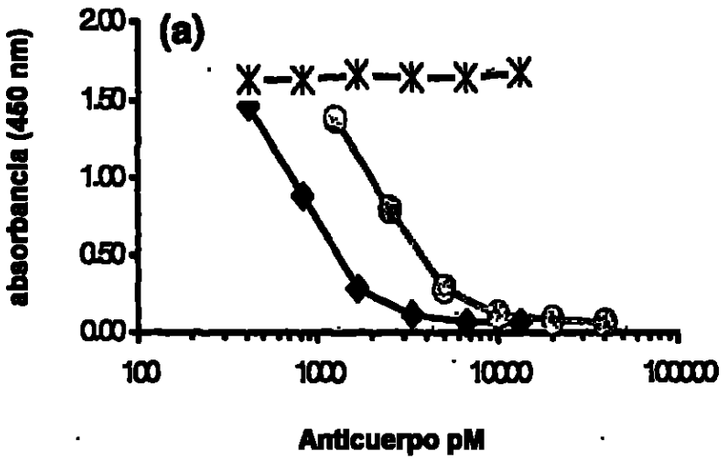


FIG. 11B

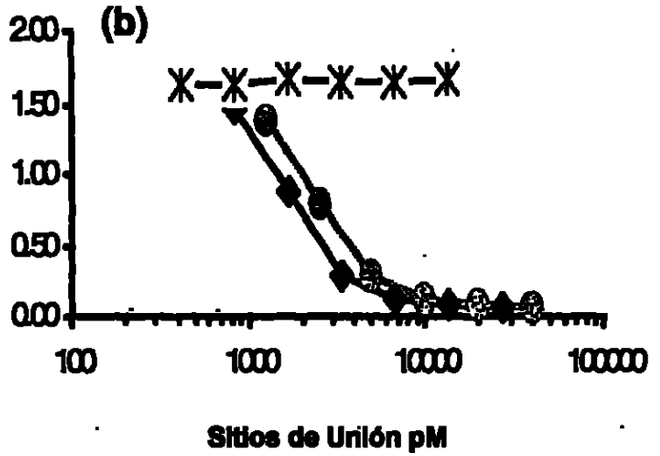




FIG. 12A

(a) Proliferación TF1

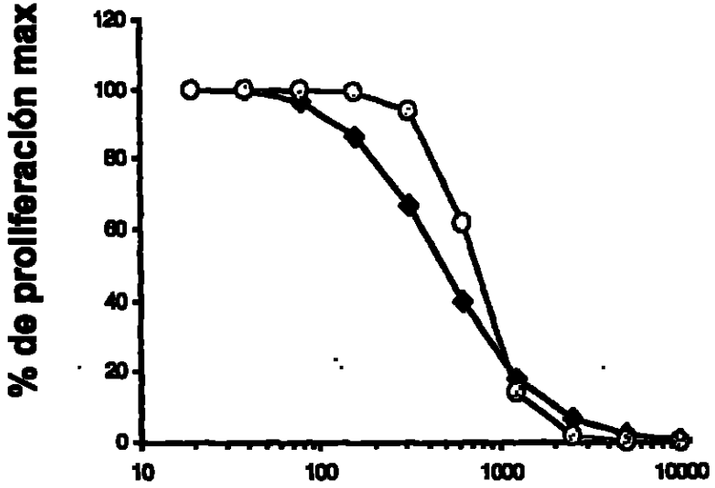
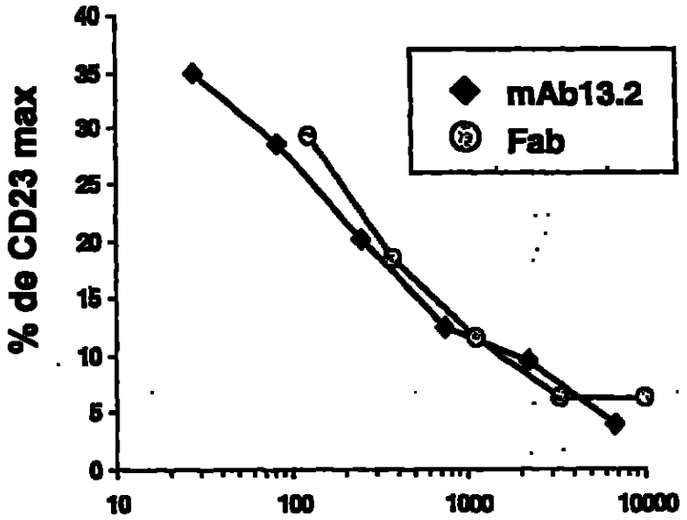


FIG. 12B

(b) Expresión CD23



Sitios de unión de competidor (pM)

```
   1  GACGAAAGGG CCTCGTGATA CGCCTATTTT TATAGGTTAA TGTCATGATA
  51  ATAATGGTTT CTTAGACGTC AGGTGGCACT TTTCGGGGAA ATGTGCGCGG
 101  AACCCCTATT TGTTTATTTT TCTAAATACA TTCAAATATG TATCCGCTCA
 151  TGAGACAATA ACCCTGATAA ATGCTTCAAT AATATTGAAA AAGGAAGAGT
 201  ATGAGTATTC AACATTTCCG TGTCGCCCTT ATTCCCTTTT TTGCGGCATT
 251  TTGCCTTCCT GTTTTTGCTC ACCCAGAAAC GCTGGTGAAA GTAAAAGATG
 301  CTGAAGATCA GTTGGGTGCA CGAGTGGGTT ACATCGAACT GGATCTCAAC
 351  AGCGGTAAGA TCCTTGAGAG TTTTCGCCCC GAAGAACGTT TTCCAATGAT
 401  GAGCACTTTT AAAGTTCTGC TATGTGGCGC GGTATTATCC CGTATTGACG
 451  CCGGGCAAGA GCAACTCGGT CGCCGCATAC ACTATTCTCA GAATGACTTG
 501  GTTGAGTACT CACCAGTCAC AGAAAAGCAT CTTACGGATG GCATGACAGT
 551  AAGAGAATTA TGCAGTGCTG CCATAACCAT GAGTGATAAC ACTGCGGCCA
 601  ACTTACTTCT GACAACGATC GGAGGACCGA AGGAGCTAAC CGCTTTTTTG
 651  CACAACATGG GGGATCATGT AACTCGCCTT GATCGTTGGG AACCGGAGCT
 701  GAATGAAGCC ATACCAAACG ACGAGCGTGA CACCACGATG CCTGTAGCAA
 751  TGGCAACAAC GTTGCGCAAA CTATTAACTG GCGAACTACT TACTCTAGCT
 801  TCCCGGCAAC AATTAATAGA CTGGATGGAG GCGGATAAAG TTGCAGGACC
 851  ACTTCTGCGC TCGGCCCTTC CGGCTGGCTG GTTTATTGCT GATAAATCTG
 901  GAGCCGGTGA GCGTGGGTCT CGCGGTATCA TTGCAGCACT GGGGCCAGAT
 951  GGTAAGCCCT CCCGTATCGT AGTTATCTAC ACGACGGGGA GTCAGGCAAC
1001  TATGGATGAA CGAAATAGAC AGATCGCTGA GATAGGTGCC TCACTGATTA
1051  AGCATTGGTA ACTGTCAGAC CAAGTTTACT CATATATACT TTAGATTGAT
1101  TTAAAACTTC ATTTTTAATT TAAAAGGATC TAGGTGAAGA TCCTTTTTGA
1151  TAATCTCATG ACCAAAATCC CTTAACGTGA GTTTTCGTTC CACTGAGCGT
1201  CAGACCCCGT AGAAAAGATC AAAGGATCTT CTTGAGATCC TTTTTTTCTG
1251  CGCGTAATCT GCTGCTTGCA AACAAAAAAA CCACCGCTAC CAGCGGTGGT
1301  TTGTTTGCCG GATCAAGAGC TACCAACTCT TTTTCCGAAG GTAACTGGCT
1351  TCAGCAGAGC GCAGATACCA AATACTGTCC TTCTAGTGTA GCCGTAGTTA
1401  GGCCACCACT TCAAGAACTC TGTAGCACCG CCTACATACC TCGCTCTGCT
1451  AATCCTGTTA CCAGTGGCTG CTGCCAGTGG CGATAAGTCG TGTCTTACCG
1501  GGTTGGACTC AAGACGATAG TTACCGGATA AGGCGCAGCG GTCGGGCTGA
1551  ACGGGGGGTT CGTGCACACA GCCCAGCTTG GAGCGAACGA CCTACACCGA
1601  ACTGAGATAC CTACAGCGTG AGCATTGAGA AAGCGCCACG CTTCCCGAAG
1651  GGAGAAAGGC GGACAGGTAT CCGGTAAGCG GCAGGGTCGG AACAGGAGAG
1701  CGCACGAGGG AGCTTCCAGG GGGAAACGCC TGGTATCTTT ATAGTCCTGT
1751  CGGGTTTCGC CACCTCTGAC TTGAGCGTCG ATTTTTGTGA TGCTCGTCAG
1801  GGGGGCGGAG CCTATGGAAA AACGCCAGCA ACGCGGCCTT TTTACGGTTC
1851  CTGGCCTTTT GCTGGCCTTT TGCTCACATG TTCTTTCCTG CGTTATCCCC
1901  TGATTCTGTG GATAACCGTA TTACCGCCTT TGAGTGAGCT GATACCGCTC
1951  GCCGCAGCCG AACGACCGAG CGCAGCGAGT CAGTGAGCGA GGAAGCGGAA
```

FIG. 13

```
2001  GAGCGCCCAA TACGCAAACC GCCTCTCCCC GCGCGTTGGC CGATTCATTA
2051  ATGCAGAATT GATCTCTCAC CTACCAAACA ATGCCCCCCT GCAAAAAATA
2101  AATTCATATA AAAAACATAC AGATAACCAT CTGCGGTGAT AAATTATCTC
2151  TGGCGGTGTT GACATAAATA CCACTGGCGG TGATACTGAG CACATCAGCA
2201  GGACGCACTG ACCACCATGA AGGTGACGCT CTTAAAAATT AAGCCCTGAA
2251  GAAGGGCAGC ATTCAAAGCA GAAGGCTTTG GGGTGTGTGA TACGAAACGA
2301  AGCATTGGCC GTAAGTGCGA TTCCGGATTA GCTGCCAATG TGCCAATCGC
2351  GGGGGGTTTT CGTTCAGGAC TACAACTGCC ACACACCACC AAAGCTAACT
2401  GACAGGAGAA TCCAGATGGA TGCACAAACA CGCCGCCGCG AACGTCGCGC
2451  AGAGAAACAG GCTCAATGGA AAGCAGCAAA TCCCCTGTTG GTTGGGGTAA
2501  GCGCAAAACC AGTTCCGAAA GATTTTTTTA ACTATAAACG CTGATGGAAG
2551  CGTTTATGCG GAAGAGGTAA AGCCCTTCCC GAGTAACAAA AAAACAACAG
2601  CATAAATAAC CCCGCTCTTA CACATTCCAG CCCTGAAAAA GGGCATCAAA
2651  TTAAACCACA CCTATGGTGT ATGCATTTAT TTGCATACAT TCAATCAATT
2701  GTTATCCAAG AAGGAGATAT ACATATGGGT CCAGTTCCAC CATCTACTGC
2751  TCTGCGTGAA CTGATTGAAG AACTGGTTAA CATCACCCAG AACCAGAAAG
2801  CTCCGCTGTG TAACGGTTCC ATGGTTTGGT CCATCAACCT GACCGCTGGT
2851  ATGTACTGTG CAGCTCTGGA ATCCCTGATC AACGTTTCTG GTTGCTCTGC
2901  TATCGAAAAA ACCCAGCGTA TGCTGTCTGG TTTCTGCCCG CACAAAGTTT
2951  CCGCTGGTCA GTTCTCCTCT CTGCACGTTC GTGACACCAA AATCGAAGTT
3001  GCTCAGTTCG TAAAAGACCT GCTGCTGCAC CTGAAAAAAC TGTTCCGTGA
3051  AGGTCGTTTC AACTAATAAT CTAGAGTCGA CCTGCAGTAA TCGTACAGGG
3101  TAGTACAAAT AAAAAAGGCA CGTCAGATGA CGTGCCTTTT TTCTTGTGAG
3151  CAGTAAGCTT GGCACTGGCC GTCGTTTTAC AACGTCGTGA CTGGGAAAAC
3201  CCTGGCGTTA CCCAACTTAA TCGCCTTGCA GCACATCCCC CTTTCGCCAG
3251  CTGGCGTAAT AGCGAAGAGG CCCGCACCGA TCGCCCTTCC CAACAGTTGC
3301  GCAGCCTGAA TGGCGAATGG CGCCTGATGC GGTATTTTCT CCTTACGCAT
3351  CTGTGCGGTA TTTCACACCG CATATATGGT GCACTCTCAG TACAATCTGC
3401  TCTGATGCCG CATAGTTAAG CCAGCCCCGA CACCCGCCAA CACCCGCTGA
3451  CGCGCCCTGA CGGGCTTGTC TGCTCCCGGC ATCCGCTTAC AGACAAGCTG
3501  TGACCGTCTC CGGGAGCTGC ATGTGTCAGA GGTTTTCACC GTCATCACCG
3551  AAACGCGCGA
```

SEQ ID NO:5

FIG. 13 (cont.)

```
  1 MEWPARLCGL WALLLCAGGG GGGGGAAPTE TQPPVTNLSV SVENLCTVIW TWNPPEGASS
 61 NCSLWYFSHF GDKQDKKIAP ETRRSIEVPL NERICLQVGS QCSTNESEKP SILVEKCISP
121 PEGDPESAVT ELQCIWHNLS YMKCSWLPGR NTSPDTNYTL YYWHRSLEKI HQCENIFREG
181 QYFGCSFDLT KVKDSSFEQH SVQIMVKDNA GKIKPSFNIV PLTSRVKPDP PHIKNLSFHN
241 DDLYVQWENP QNFISRCLFY EVEVNNSQTE THNVFYVQEA KCENPEFERN VENTSCFMVP
301 GVLPDTLNTV RIRVKTNKLC YEDDKLWSNW SQEMSIGKKR NSTLYITMLL IVPVIVAGAI
361 IVLLLYLKRL KIIIFPPIPD PGKIFKEMFG DQNDDTLHWK KYDIYEKQTK EETDSVVLIE
421 NLKKASQ
```

SEQ ID NO:12 IL-13Rα1

FIG. 14

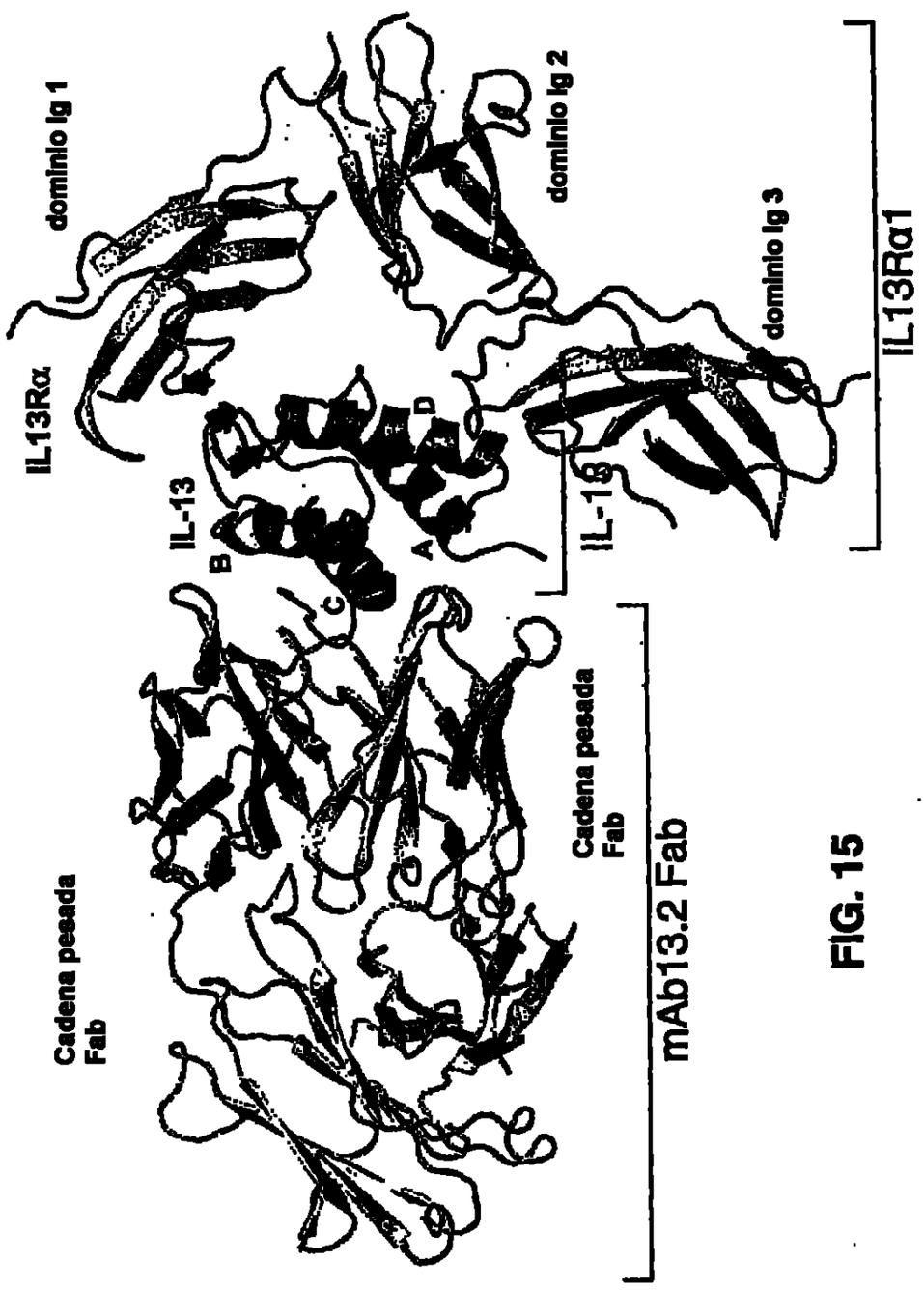

IL13Rα
dominio Ig 1
dominio Ig 2
dominio Ig 3
IL13Rα1
IL-13
IL-18
A
B
C
D
Cadena pesada Fab
Cadena pesada Fab
mAb13.2 Fab

FIG. 15

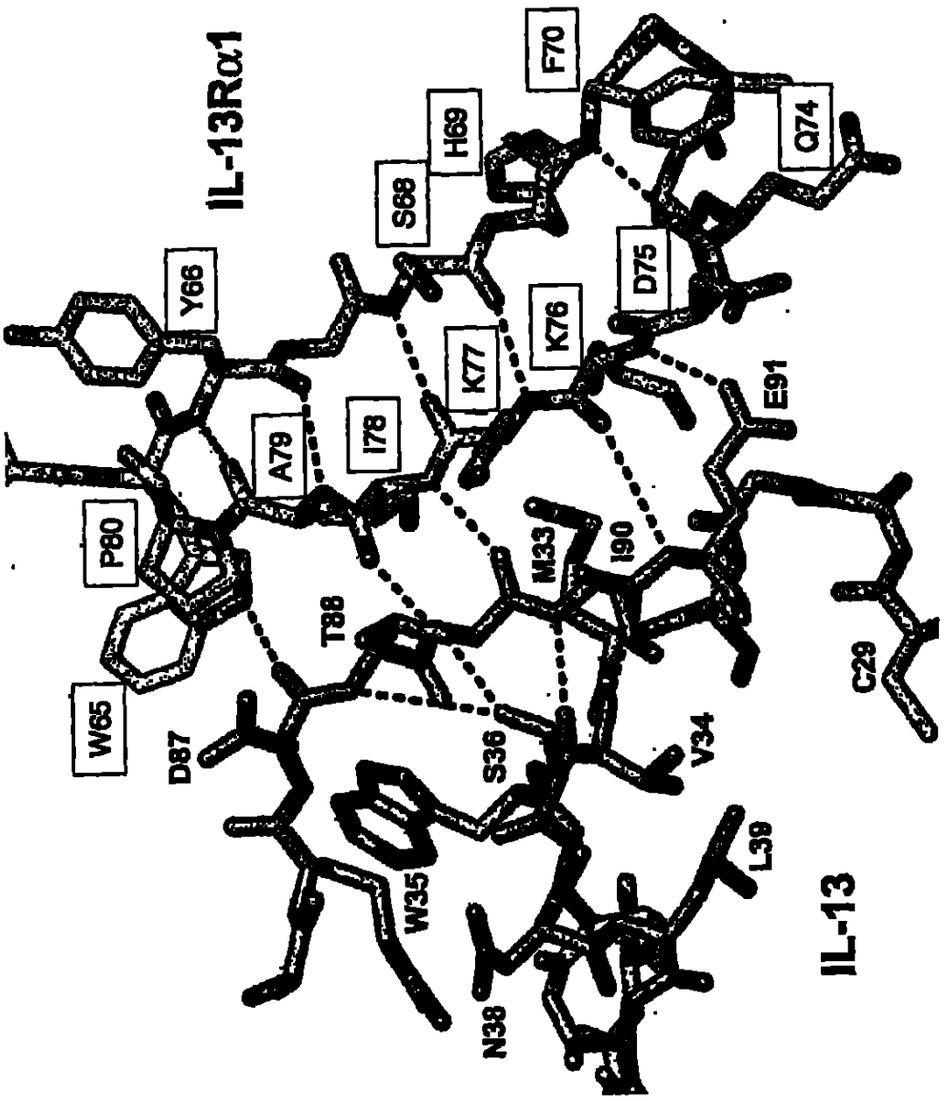

IL-13Rα1
F70
H69
S68
Y66
Q74
D75
K76
K77
I78
A79
P80
E91
M33
I90
T88
W65
D87
S36
V34
C29
W35
L39
N38
IL-13

FIG. 16

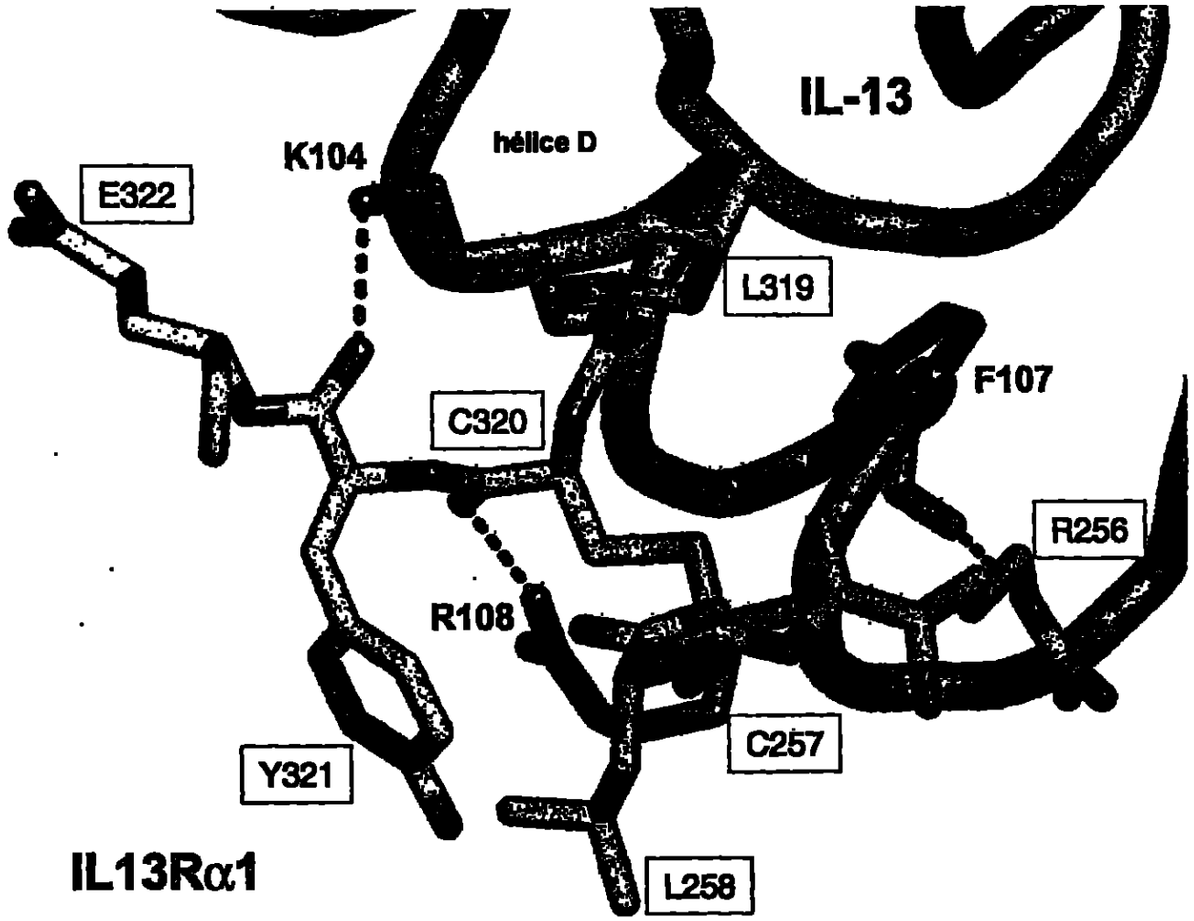

IL-13
hélice D
K104
E322
L319
F107
C320
R256
R108
C257
Y321
L258
IL13Rα1

FIG. 17

756

00756

PATENT COOPERATION TREATY PCT/US2005/020334

From the INTERNATIONAL BUREAU

PCT

NOTIFICATION CONCERNING
SUBMISSION OR TRANSMITTAL
OF PRIORITY DOCUMENT

(PCT Administrative Instructions, Section 411)

To:

DALEY, Sean, P.
Fish & Richardson P.C.
225 Franklin Street
Boston, MA 02110-2804
ETATS-UNIS D'AMERIQUE

Date of mailing *(day/month/year)* 08 November 2005 (08.11.2005)	
Applicant's or agent's file reference 16163-029WO1	IMPORTANT NOTIFICATION
International application No. PCT/US2005/020334	International filing date *(day/month/year)* 09 June 2005 (09.06.2005)
International publication date *(day/month/year)*	Priority date *(day/month/year)* 09 June 2004 (09.06.2004)
Applicant WYETH et al	

1. By means of this Form, which replaces any previously issued notification concerning submission or transmittal of priority documents, the applicant is hereby notified of the date of receipt by the International Bureau of the priority document(s) relating to all earlier application(s) whose priority is claimed. Unless otherwise indicated by the letters "NR", in the right-hand column or by an asterisk appearing next to a date of receipt, the priority document concerned was submitted or transmitted to the International Bureau in compliance with Rule 17.1(a) or (b).

2. *(If applicable)* The letters "NR" appearing in the right-hand column denote a priority document which, on the date of mailing of this Form, had not yet been received by the International Bureau under Rule 17.1(a) or (b). Where, under Rule 17.1(a), the priority document must be submitted by the applicant to the receiving Office or the International Bureau, but the applicant fails to submit the priority document within the applicable time limit under that Rule, the attention of the applicant is directed to Rule 17.1(c) which provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

3. *(If applicable)* An asterisk (*) appearing next to a date of receipt, in the right-hand column, denotes a priority document submitted or transmitted to the International Bureau but not in compliance with Rule 17.1(a) or (b) (the priority document was received after the time limit prescribed in Rule 17.1(a) or the request to prepare and transmit the priority document was submitted to the receiving Office after the applicable time limit under Rule 17.1(b)). Even though the priority document was not furnished in compliance with Rule 17.1(a) or (b), the International Bureau will nevertheless transmit a copy of the document to the designated Offices, for their consideration. In case such a copy is not accepted by the designated Office as the priority document, Rule 17.1(c) provides that no designated Office may disregard the priority claim concerned before giving the applicant an opportunity, upon entry into the national phase, to furnish the priority document within a time limit which is reasonable under the circumstances.

Priority date	Priority application No.	Country or regional Office or PCT receiving Office	Date of receipt of priority document
09 June 2004 (09.06.2004)	60/578,736	US	05 October 2005 (05.10.2005)
09 June 2004 (09.06.2004)	60/578,473	US	05 October 2005 (05.10.2005)
22 June 2004 (22.06.2004)	60/581,376	US	05 October 2005 (05.10.2005)

The International Bureau of WIPO 34, chemin des Colombettes 1211 Geneva 20, Switzerland Facsimile No. +41 22 338 82 70	Authorized officer Leslie BARRIOS (Fax 338 8965) Facsimile No. (41-22) 338.89.65 Telephone No. +41 22 338 8898

Form PCT/IB/304 (January 2004) CM52KADW

PATENT COOPERATION TREATY

From the INTERNATIONAL SEARCHING AUTHORITY

To:
FISH & RICHARDSON P.C.
Attn. Daley, Sean P.
225 Franklin Street
Boston, Massachusetts 02110-2804
UNITED STATES OF AMERICA

PCT

NOTIFICATION OF TRANSMITTAL OF THE INTERNATIONAL SEARCH REPORT AND THE WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY, OR THE DECLARATION

(PCT Rule 44.1)

Applicant's or agent's file reference 16163-029WO1	Date of mailing (day/month/year) 15/03/2006 FOR FURTHER ACTION See paragraphs 1 and 4 below
International application No. PCT/US2005/020334	International filing date (day/month/year) 09/06/2005
Applicant WYETH	

1. [x] The applicant is hereby notified that the international search report and the written opinion of the International Searching Authority have been established and are transmitted herewith.

   Filing of amendments and statement under Article 19:
   The applicant is entitled, if he so wishes, to amend the claims of the International Application (see Rule 46):

   When? The time limit for filing such amendments is normally two months from the date of transmittal of the International Search Report.

   Where? Directly to the International Bureau of WIPO, 34 chemin des Colombettes 1211 Geneva 20, Switzerland, Facsimile No.: (41-22) 338.82.70

   For more detailed instructions, see the notes on the accompanying sheet.

2. [ ] The applicant is hereby notified that no international search report will be established and that the declaration under Article 17(2)(a) to that effect and the written opinion of the International Searching Authority are transmitted herewith.

3. [ ] With regard to the protest against payment of (an) additional fee(s) under Rule 40.2, the applicant is notified that:

   [ ] the protest together with the decision thereon has been transmitted to the International Bureau together with the applicant's request to forward the texts of both the protest and the decision thereon to the designated Offices.

   [ ] no decision has been made yet on the protest; the applicant will be notified as soon as a decision is made.

4. Reminders

   Shortly after the expiration of 18 months from the priority date, the international application will be published by the International Bureau. If the applicant wishes to avoid or postpone publication, a notice of withdrawal of the international application, or of the priority claim, must reach the International Bureau as provided in Rules 90bis.1 and 90bis.3, respectively, before the completion of the technical preparations for international publication.

   The applicant may submit comments on an informal basis on the written opinion of the International Searching Authority to the International Bureau. The International Bureau will send a copy of such comments to all designated Offices unless an international preliminary examination report has been or is to be established. These comments would also be made available to the public but not before the expiration of 30 months from the priority date.

   Within 19 months from the priority date, but only in respect of some designated Offices, a demand for international preliminary examination must be filed if the applicant wishes to postpone the entry into the national phase until 30 months from the priority date (in some Offices even later); otherwise, the applicant must, within 20 months from the priority date, perform the prescribed acts for entry into the national phase before those designated Offices.

   In respect of other designated Offices, the time limit of 30 months (or later) will apply even if no demand is filed within 19 months.

   See the Annex to Form PCT/IB/301 and, for details about the applicable time limits, Office by Office, see the *PCT Applicant's Guide*, Volume II, National Chapters and the WIPO Internet site.

Name and mailing address of the International Searching Authority European Patent Office, P.B. 5818 Patentlaan 2 NL-2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer Christian Pozzi

Form PCT/ISA/220 (January 2004) *(See notes on accompanying sheet)*

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NOTES TO FORM PCT/ISA/220

These Notes are intended to give the basic instructions concerning the filing of amendments under article 19. The Notes are based on the requirements of the Patent Cooperation Treaty, the Regulations and the Administrative Instructions under that Treaty. In case of discrepancy between these Notes and those requirements, the latter are applicable. For more detailed information, see also the *PCT Applicant's Guide*, a publication of WIPO.

In these Notes, "Article", "Rule", and "Section" refer to the provisions of the PCT, the PCT Regulations and the PCT Administrative Instructions, respectively.

INSTRUCTIONS CONCERNING AMENDMENTS UNDER ARTICLE 19

The applicant has, after having received the international search report and the written opinion of the International Searching Authority, one opportunity to amend the claims of the international application. It should however be emphasized that, since all parts of the international application (claims,description and drawings) may be amended during the international preliminary examination procedure, there is usually no need to file amendments of the claims under Article 19 except where, e.g. the applicant wants the latter to be published for the purposes of provisional protection or has another reason for amending the claims before international publication. Furthermore, it should be emphasized that provisional protection is available in some States only (see *PCT Applicant's Guide*, Annexes B1 and B2).

The attention of the applicant is drawn to the fact that amendments to the claims under Article 19 are not allowed where the International Searching Authority has declared, under Article 17(2), that no international search report would be established (see *PCT Applicant's Guide*, Volume I/A, paragraph 296).

What parts of the international application may be amended?

Under Article 19, only the claims may be amended.

During the international phase, the claims may also be amended (or further amended) under Article 34 before the International Preliminary Examining Authority. The description and drawings may only be amended under Article 34 before the International Examining Authority.

Upon entry into the national phase, all parts of the international application may be amended under Article 28 or, where applicable, Article 41.

When? Within 2 months from the date of transmittal of the international search report or 16 months from the priority date, whichever time limit expires later. It should be noted, however, that the amendments will be considered as having been received on time if they are received by the International Bureau after the expiration of the applicable time limit but before the completion of the technical preparations for international publication (Rule 46.1).

Where not to file the amendments?

The amendments may only be filed with the International Bureau and not with the receiving Office or the International Searching Authority (Rule 46.2).

Where a demand for international preliminary examination has been/is filed, see below.

How? Either by cancelling one or more entire claims, by adding one or more new claims or by amending the text of one or more of the claims as filed.

A replacement sheet must be submitted for each sheet of the claims which, on account of an amendment or amendments, differs from the sheet originally filed.

All the claims appearing on a replacement sheet must be numbered in Arabic numerals. Where a claim is cancelled, no renumbering of the other claims is required. In all cases where claims are renumbered, they must be renumbered consecutively (Administrative Instructions, Section 205(b)).

The amendments must be made in the language in which the international application is to be published.

What documents must/may accompany the amendments?

Letter (Section 205(b)):

The amendments must be submitted with a letter.

The letter will not be published with the international application and the amended claims. It should not be confused with the "Statement under Article 19(1)" (see below, under "Statement under Article 19(1)").

The letter must be in English or French, at the choice of the applicant. However, if the language of the international application is English, the letter must be in English; if the language of the international application is French, the letter must be in French.

PATENT COOPERATION TREATY

PCT

INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference	FOR FURTHER ACTION	see Form PCT/ISA/220 as well as, where applicable, item 5 below.
16163-029WO1		
International application No.	International filing date *(day/month/year)*	(Earliest) Priority Date *(day/month/year)*
PCT/US2005/020334	09/06/2005	09/06/2004
Applicant		
WYETH		

This international search report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This international search report consists of a total of 8 sheets.

[X] It is also accompanied by a copy of each prior art document cited in this report.

1. Basis of the report
   a. With regard to the language, the international search was carried out on the basis of:
      [X] the international application in the language in which it was filed
      [ ] a translation of the international application into _____, which is the language of a translation furnished for the purposes of international search (Rules 12.3(a) and 23.1(b))
   b. [ ] With regard to any nucleotide and/or amino acid sequence disclosed in the international application, see Box No. I.

2. [X] Certain claims were found unsearchable (See Box No. II)

3. [ ] Unity of invention is lacking (see Box No III)

4. With regard to the title,
   [ ] the text is approved as submitted by the applicant
   [X] the text has been established by this Authority to read as follows:

   ANTI-IL-13 ANTIBODIES, CRYSTALS OF ANTI-IL-13 ANTIBODIES AND COMPLEXES COMPRISIN G THEM

5. With regard to the abstract,
   [X] the text is approved as submitted by the applicant
   [ ] the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority

6. With regard to the drawings,
   a. the figure of the drawings to be published with the abstract is Figure No. 3
      [X] as suggested by the applicant
      [ ] as selected by this Authority, because the applicant failed to suggest a figure
      [ ] as selected by this Authority, because this figure better characterizes the invention
   b. [ ] none of the figures is to be published with the abstract

INTERNATIONAL SEARCH REPORT

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International application No PCT/US2005/020334

A. CLASSIFICATION OF SUBJECT MATTER
C07K16/24 G06F19/00

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
C07K G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, BIOSIS, EMBASE, Sequence Search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 02/101629 A (WYETH) 19 December 2002 (2002-12-19) page 1 - page 48 -/--	1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110,111, 124-126, 133-140, 145,146

[X] Further documents are listed in the continuation of Box C. [X] See patent family annex.

* Special categories of cited documents :

"A" document defining the general state of the art which is not considered to be of particular relevance
"E" earlier document but published on or after the international filing date
"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
"O" document referring to an oral disclosure, use, exhibition or other means
"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
"&" document member of the same patent family

Date of the actual completion of the international search	Date of mailing of the international search report
8 March 2006	15/03/2006

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Dumont, E

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Form PCT/ISA/210 (second sheet) (April 2005)

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	MOY FRANKLIN J ET AL: "Solution structure of human IL-13 and implication for receptor binding" JOURNAL OF MOLECULAR BIOLOGY, vol. 310, no. 1, 29 June 2001 (2001-06-29), pages 219-230, XP004464193 ISSN: 0022-2836 abstract page 227, column 2, last paragraph	1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110,111, 124-126, 133-140, 145,146
X	PUNNONEN ET AL: "The relative contribution of IL-4 and IL-13 to human IgE synthesis induced by activated CD4<+> or CD8<+> T cells" JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, MOSBY - YEARLY BOOK, INC, US, vol. 100, no. 6, December 1997 (1997-12), pages 792-801, XP005138233 ISSN: 0091-6749 the whole document	1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110,111, 124-126, 133-140, 145,146
A	US 2002/136719 A1 (SHENOY BHAMI ET AL) 26 September 2002 (2002-09-26) the whole document	1-113, 124-126, 133-140, 145,146
A	BLUNDELL T L ET AL: "HIGH-THROUGHPUT CRYSTALLOGRAPHY FOR LEAD DISCOVERY IN DRUG DESIGN" NATURE REVIEWS. DRUG DISCOVERY, NATURE PUBLISHING GROUP, BASINGSTOKE, GB, vol. 1, no. 1, January 2002 (2002-01), pages 45-54, XP009023187 ISSN: 1474-1784 the whole document	1-113, 124-126, 133-140, 145,146

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2005/020334

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 02/18445 A (BIOGEN, INC; KARPUSAS, MICHAEL; HSU, YEN-MING; TAYLOR, FREDERICK, R; Z) 7 March 2002 (2002-03-07) abstract claims 1-109	1-113, 124-126, 133-140, 145,146

Form PCT/ISA/210 (continuation of second sheet) (April 2005)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box II.1

Claims 151-166 are directed to a method of treatment of the human/animal body.

Continuation of Box II.1

Claims Nos.: 114-123, 127-132, 141-144, 147-182

Rule 39.1(v) PCT - Presentation of information
Rule 39.1(iv) PCT - Method for treatment of the human or animal body by therapy

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Continuation of Box II.2

Claims Nos.: 114-123, 127-132, 141-144, 147-182

The subject-matter of claims 114-123, 127-132 , 141-144, 147-150 refers to software systems and computer programs which are considered excluded subject-matter within the meaning of Rule 39(vi) PCT (see also PCT Guidelines 9.15). Thus, the above-mentioned claims will not be searched.

The present claims 151-182 encompass compounds (agents) defined only by their desired
function (modulation of IL-3 activity), contrary to the requirements of clarity of Article 6 PCT, because the
result-to-be-achieved type of definition does not allow the scope of the claim to be
ascertained. The fact that any compound could be screened does not overcome this
objection, as the skilled person would not have knowledge beforehand as to whether it
would fall within the scope claimed. Undue experimentation would be required to screen compounds
randomly. This non-compliance with the substantive provisions is to such an extent, that no meaningful search of claims 151-182 could be carried out at all (Article 17(2) PCT and PCT Guidelines 9.26).

The applicant's attention is drawn to the fact that claims relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure. If the application proceeds into the regional phase before the EPO, the applicant is reminded that a search may be carried out during examination before the EPO (see EPO Guideline C-VI, 8.5), should the problems which led to the Article 17(2) declaration be overcome.

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INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2005/020334

Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. [X] Claims Nos.: 114-123, 127-132, 141-144, 147-182
because they relate to subject matter not required to be searched by this Authority, namely:
Claims 151-166 are directed to a method of treatment of the human/animal body.

2. [X] Claims Nos.: 114-123, 127-132, 141-144, 147-182
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210

3. [ ] Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. [ ] As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.

2. [ ] As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. [ ] As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:

4. [ ] No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

[ ] The additional search fees were accompanied by the applicant's protest.

[ ] No protest accompanied the payment of additional search fees.

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No PCT/US2005/020334

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 02101629 A	19-12-2002	CA 2450147 A1	19-12-2002
		EP 1402451 A1	31-03-2004
		JP 2005506960 T	10-03-2005
		MX PA03011158 A	27-02-2004
		ZA 200309894 A	29-09-2004
US 2002136719 A1	26-09-2002	NONE	
WO 0218445 A	07-03-2002	AU 8867501 A	13-03-2002
		CA 2421055 A1	07-03-2002
		EP 1328548 A2	23-07-2003
		JP 2004517814 T	17-06-2004

PATENT COOPERATION TREATY

00767

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

see form PCT/ISA/220

PCT

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY
(PCT Rule 43*bis*.1)

Date of mailing (day/month/year) see form PCT/ISA/210 (second sheet)	
Applicant's or agent's file reference see form PCT/ISA/220	FOR FURTHER ACTION See paragraph 2 below

International application No.	International filing date (day/month/year)	Priority date (day/month/year)
PCT/US2005/020334	09.06.2005	09.06.2004

International Patent Classification (IPC) or both national classification and IPC
C07K16/24, G06F19/00

Applicant
WYETH

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☒ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1*bis*(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:	Authorized Officer
European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Dumont, E Telephone No. +49 89 2399-7704

Form (PCT/ISA/237) (Cover Sheet) (January 2004)

WRITTEN PINION F THE INTERNATI NAL SEARCHING AUTHORITY

International application No.
PCT/US2005/020334

Box No. I Basis of the opinion

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

   ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).

2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:

   a. type of material:

   ☐ a sequence listing

   ☐ table(s) related to the sequence listing

   b. format of material:

   ☐ in written format

   ☐ in computer readable form

   c. time of filing/furnishing:

   ☐ contained in the international application as filed.

   ☐ filed together with the international application in computer readable form.

   ☐ furnished subsequently to this Authority for the purposes of search.

3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.

4. Additional comments:

WRITTEN OPINION F THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2005/020334

Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

☐ the entire international application,

☒ claims Nos. 114-123, 127-132, 141-144, 147-182

because:

☐ the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination *(specify)*:

☐ the description, claims or drawings *(indicate particular elements below)* or said claims Nos. are so unclear that no meaningful opinion could be formed *(specify)*:

☐ the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.

☒ no international search report has been established for the whole application or for said claims Nos. 114-123, 127-132, 141-144, 147-182

☐ the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

the written form ☐ has not been furnished

☐ does not comply with the standard

the computer readable form ☐ has not been furnished

☐ does not comply with the standard

☐ the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-*bis* of the Administrative Instructions.

☐ See separate sheet for further details

WRITTEN OPINI N F THE INTERNATIONAL SEARCHING AUTHORITY

International application No.
PCT/US2005/020334

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes:	Claims	1-77, 79-113, 124-126, 133-140, 145-146
	No:	Claims	78
Inventive step (IS)	Yes:	Claims	11, 12, 16, 32, 33, 40, 51, 52, 64, 69, 70, 85, 94, 99, 101, 108, 109, 112, 113
	No:	Claims	1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110, 111, 124-126, 133-140, 145-146
Industrial applicability (IA)	Yes:	Claims	1-113, 124-126, 133-140, 145-146
	No:	Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following documents:

D1: WO 02/101629 A (WYETH) 19 December 2002 (2002-12-19)

D2: PUNNONEN ET AL: "The relative contribution of IL-4 and IL-13 to human IgE synthesis induced by activated CD4<+> or CD8<+> T cells" JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, MOSBY - YEARLY BOOK, INC, US, vol. 100, no. 6, December 1997 (1997-12), pages 792-801, XP005138233 ISSN: 0091-6749

D3: US 2002/136719 A1 (SHENOY BHAMI ET AL) 26 September 2002 (2002-09-26)

D4: BLUNDELL T L ET AL: "HIGH-THROUGHPUT CRYSTALLOGRAPHY FOR LEAD DISCOVERY IN DRUG DESIGN" NATURE REVIEWS. DRUG DISCOVERY, NATURE PUBLISHING GROUP, BASINGSTOKE, GB, vol. 1, no. 1, January 2002 (2002-01), pages 45-54, XP009023187 ISSN: 1474-1784

D5: WO 02/18445 A (BIOGEN, INC; KARPUSAS, MICHAEL; HSU, YEN-MING; TAYLOR, FREDERICK, R; Z) 7 March 2002 (2002-03-07)

1. Novelty (Art. 33(2) PCT

D1 anticipates the subject-matter of claim 78, since it discloses a method for designing an agent that interacts with IL-13, comprising the steps of (a) generating a three dimensional model of IL-13 and (b) employing said three-dimensional model to design an agent that interacts with IL-13.

Claims 1-77, 79-113, 124-126, 133-140, and 145-146 appear to be novel, since the available prior art does not disclose a crystalline anti-IL13 antibody or a crystalline complex comprising such an antibody, or a crystalline complex comprising an IL-13Rα1 polypeptide and an IL-13 polypeptide.

The cited prior art does furthermore not disclose a method using a three dimensional model of an anti-IL13 antibody, or a three dimensional model of a complex comprising an IL-13 polypeptide bound to an anti-IL13 antibody or to an IL-13Rα1 polypeptide.

2. Inventive step (Art. 33(3) PCT)

2.1. The subject-matter of claims 1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110, 111, 124-126, 133-140, 145-146 is considered to lack an inventive step for the following reasons.

Anti-IL-13 monoclonal antibodies are known from the prior art, e.g. from D2.

Methods for the crystallization of high concentrations of whole antibodies or antibody fragments in large batches are also known in the art, e.g. from D3.

Therefore the provision of crystalline anti-IL-13 antibodies could be achieved by standard methods without requiring inventive skills.

Furthermore, D1 provides the three dimensional solution structure of IL-13. It is also known from D1 that IL-13 binds to the IL-13 binding chain (IL-13Rα1) with relatively high affinity (D1, [0086]).

As described e.g. D4, new technical developments have aided the development of high-throughput X-ray crystallography and led to a strong increase in the number of protein structures. Crystallization techniques are now routinely used. Starting from known proteins or protein complexes (IL-13/anti-IL-13, IL-13/IL-13Rα1) the claimed crystalline forms could thus all have been obtained by using standard methods, especially since there is no indication in the present application that any particular difficulties were encountered.

Therefore, an inventive contribution cannot be acknowledged for the above-mentioned claims relating to crystalline proteins or complexes (claims 1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 133-136.)

The use of three-dimensional structures in drug design is also well-known, and described e.g. in D4. Methods using the structure coordinates of crystalline antibody-antigen complexes to design chemical entities or compounds that specifically bind the antigen or modulate its activity are described e.g. in D5 (see abstract). Therefore also the above-mentioned method claims (claims 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110, 111, 124-126, 137-140, 145-146) are not considered to involve an inventive step.

2.2. Claims 11, 12, 16, 32, 33, 40, 51, 52, 64, 69, 70, 85, 94, 99, 101, 108, 109, 112, 113 relate to IL-13 specific monoclonal antibody mAb13.2 or to an mAb13.2 Fab fragment, characterized by SEQ ID NO: 1 (light chain of mAb13.2 Fab) and SEQ ID NO: 2 (heavy chain of mAb13.2 Fab).

MAb13.2 is shown to neutralize IL-13 bioactivity (examples 1 and 2). MAb13.2 binds with

high affinity to a region of IL-13 which normally binds to IL-4Rα, and can bind to IL-13 that is bound to IL-13Rα1 monomer (example 3, Fig. 4).

As already mentioned above, neutralizing mAbs specific for IL-13 are known, e.g. from D2.

As far as the claimed subject-matter relates to mAb13.2, the technical problem to be solved in view of D2 can be defined as the provision of an alternative monoclonal antibody with high affinity to a region of IL-13 which normally binds to IL-4Rα, and which can bind to IL-13 that is bound to IL-13Rα1 monomer.

This problem has been solved in the present application by the provision of one specific antibody, mAb13.2, defined by SEQ ID NO: 1 and SEQ ID NO: 2.

As the description does not disclose a method which differs from the known methods of producing antibodies and which would allow to consistently produce antibodies with the features of mAb13.2, only this specific antibody characterized by SEQ ID NO: 1 and SEQ ID NO: 2, as well as subject-matter relating to this antibody, is considered to involve an inventive step.

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00774

TRATADO DE COOPERACIÓN EN MATERIA DE PATENTES

De la:
AUTORIDAD EXAMINADORA PRELIMINAR INTERNACIONAL

Para:

Véase forma PCT/ISA/220

PCT

OPINIÓN ESCRITA DE LA AUTORIDAD DE BÚSQUEDA INTERNACIONAL
(Regla 43bis.1 del PCT)

Fecha de envío (día/mes/año): Véase forma PCT/ISA/220 (segunda hoja)

Referencia de archivo del solicitante o apoderado:
Véase forma PCT/ISA/220

PARA UNA ACCIÓN ADICIONAL
Véase párrafo 2 abajo.

No. de solicitud internacional:	Fecha de presentación internacional (día/mes/año):	Fecha de prioridad (día/mes/año):
PCT/US2005/020334	09.06.2005	09.06.2004

Clasificación de Patente Internacional (IPC) o clasificación nacional e IPC:
C07K16/24, G06F 19/00

Solicitante:
WYETH

1. Esta opinión contiene indicaciones y páginas correspondientes que se relacionan con los siguientes ítems:

- [X] Bloque No. I — Base de la opinión
- [ ] Bloque No. II — Prioridad
- [X] Bloque No. III — No se establece opinión con respecto a novedad, paso o etapa inventiva y aplicabilidad industrial
- [ ] Bloque No. IV — Falta de unidad de la invención
- [X] Bloque No. V — Declaración justificada bajo la Regla 66.2(a)(ii) con respecto a novedad, etapa o paso inventivo o aplicabilidad industrial; citas y explicaciones que apoyan tal declaración.
- [ ] Bloque No. VI — Ciertos documentos citados
- [ ] Bloque No. VII — Ciertos defectos en la solicitud internacional
- [ ] Bloque No. VI — Ciertas observaciones en la solicitud internacional

2: ACCIÓN ADICIONAL

Si se hace una demanda por un examen preliminar internacional, esta opinión será considerada como una opinión escrita de la Autoridad Examinadora Preliminar Internacional ("IPEA") excepto que esto no aplique cuando el solicitante selecciona una Autoridad que no sea esta como la IPEA y la IPEA seleccionada haya notificado a la Oficina Internacional bajo la Regla 66.1 bis(b) que opiniones escritas de esta Autoridad de Búsqueda Internacional no serán consideradas entonces.

Si esta opinión es, como se indicó arriba, considerada como una opinión escrita de la IPEA, se invita al solicitante a presentar a la IPEA una respuesta escrita junto, cuando sea adecuado, enmiendas, antes de la expiración de los 3 meses a partir de a fecha de envío de la Forma PCT/ISA/220 o antes de que expiren los 22 meses a partir de la fecha de prioridad, cualquiera que expire después.
Para opiniones adicionales, véase la Forma PCT/ISA/220.

3. Para detalles adicionales, véase notas a la Forma PCT/ISA/220.

Nombre y dirección de correspondencia de la ISA:

European Patent Office,
D-80298 Munich
Tel. +49 89 2399-0 Tx. 523656 epmu d
Fax: +49 89 2399-4465

Funcionario Autorizado/Examinador:

Dumont, E

No. telefónico: +49 89 2399-7704

Bloque No. I Base de la opinión

1. Con respecto a la lengua, todos los elementos marcados anteriormente estaban disponibles o fueron proporcionados a esta Autoridad en la lengua en la cual la solicitud internacional fue presentada, a no ser que se indique de otra manera en este ítem.

☐ Esta opinión ha sido establecida sobre la base de una traducción del idioma original al siguiente idioma , el cual es el idioma de una traducción presentada con el propósito de búsqueda internacional (conforme a las Reglas 12.3 y 23.1(b)).

2. Con respecto a cualquier secuencia de nucleótidos y/o de aminoácidos revelada en la solicitud internacional y necesaria para la invención reclamada, esta opinión ha sido establecida con base en:

a. tipo de material

☐ un listado de secuencias

☐ tabla(s) relacionadas con el listado de secuencias

b. formato de material:

☐ en formato escrito

☐ en forma legible por computadora

c. momento de presentación/sumisión

☐ contenido en la solicitud internacional como se presentó.

☐ presentado junto con la solicitud internacional, en forma que se puede leer por computadora.

☐ enviado posteriormente a esta Autoridad con el propósito de búsqueda.

3. Además, en el caso de que más de una versión o copia de un listado de secuencias y/o tabla que se refiera al mismo haya sido presentada o sometida, las declaraciones requeridas de que la información en las copias subsecuentes o adicionales sea idéntica a la de la solicitud presentada o no se aleje de la solicitud presentada, según sea adecuado, fueron presentadas.

4. Comentarios adicionales.

Bloque No. III No se establece opinión con respecto a novedad, paso inventivo y aplicabilidad industrial

1. Las preguntas acerca de si la invención reclamada parece ser novedosa, si incluye un paso inventivo (que no sea obvia), o de si es aplicable industrialmente no han sido examinadas con respecto a:

☐ la solicitud internacional completa.

☒ las reivindicaciones Nos. 114-123, 127-132, 141-144, 147-182

porque:

☐ la solicitud internacional mencionada, o los Nos. de reivindicaciones con respecto a aplicabilidad industrial se refieren a la siguiente materia que no requiere un examen preliminar internacional (*especificar*):

☐ la descripción, reivindicaciones o dibujos (*indicar elementos particulares abajo*) o dichos Nos. de reivindicaciones son tan poco claros que no puede formarse opinión significativa alguna (*especificar*):

☐ las reivindicaciones, o dichos Nos. de reivindicaciones están tan inadecuadamente soportados por la descripción que no puede formarse opinión significativa alguna.

☒ no se ha establecido reporte de búsqueda internacional alguno para los Nos. de reivindicaciones mencionados 114-123, 127-132, 141-144, 147-182

☐ el listado de secuencias de nucleótidos y/o aminoácidos no cumple con la norma provista en el Anexo C de las Instrucciones Administrativas porque:

la forma escrita	☐	no ha sido presentada
	☐	no cumple con la norma
la forma legible por computadora	☐	no ha sido presentada
	☐	no cumple con la norma

☐ las tablas relacionadas con el listado de secuencias de nucleótidos y/o aminoácidos, si están sólo en forma legible por computadora, no cumplen con los requerimientos técnicos proporcionados en el Anexo C-*bis* de las Instrucciones Administrativas

☐ Véase hoja separada para más detalles

Bloque No. V. Declaración razonada conforme a la Regla 43*bis*.1(a)(i) con relación a novedad, paso inventivo o aplicabilidad industrial; citas y explicaciones que soportan dicha declaración

1. Declaración

Novedad (N)	Sí:	Reivindicaciones	1-77, 79-113, 124-126, 133-140, 145-146
	No:	Reivindicaciones	78
Paso inventivo (PI)	Sí:	Reivindicaciones	11, 12, 16, 32, 33, 40, 51, 52, 64, 69, 70, 85, 94, 99, 101, 108, 109, 112, 113
	No:	Reivindicaciones	1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110, 111, 124-126, 133-140, 145-146
Aplicabilidad industrial (AI)	Sí:	Reivindicaciones	1-113, 124-126, 133-140, 145-146
	No:	Reivindicaciones	

2. Citas y explicaciones:

véase hoja separada

Re Item V

Declaración razonada con relación a novedad, paso inventivo o aplicabilidad industrial; citas y explicaciones que soportan dicha declaración

Se hace referencia a los siguientes documentos:

D1: WO 02/101629 A (WYETH) 19 December 2002 (2002-12-19)

D2: PUNNONEN ET AL: "The relative contribution of IL-4 and IL-13 to human IgE synthesis induced by activated CD4<+> or CD8<+> T cells" JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, MOSBY - YEARLY BOOK, INC, US, vol. 100, no. 6, Diciembre 1997 (1997-12), páginas 792-801, XP005138233 ISSN: 0091-6749 .

D3: US 2002/136719 Al (SHENOY BHAMI ET AL) 26 Septiembre 2002 (2002-09-26)

D4: BLUNDELL T L ET AL: "HIGH-THROUGHPUT CRYSTALLOGRAPHY FOR LEAD DISCOVERY IN DRUG DESIGN" NATURE REVIEWS. DRUG DISCOVERY, NATURE PUBLISHING GROUP, BASINGSTOKE, GB, vol. 1, no. 1, Enero 2002 (2002-01), páginas 45-54, XP009023187 ISSN: 1474-1784

D5: WO 02/18445 A (BIOGEN, INC; KARPUSAS, MICHAEL; HSU, YEN-MING; TAYLOR, FREDERICK, R; Z) 7 Marzo 2002 (2002-03-07)

1 Novedad (Art. 33(2) del PCT)

D1 anticipa la materia objetivo de la reivindicación 78, ya que describe un método para diseñar un agente que interactúa con IL-13, que comprende las etapas de (a) generar un modelo tridimensional de IL-13 y (b) emplear el modelo tridimensional para diseñar un agente que interactúa con IL-13.

Las reivindicaciones 1-77, 79-113, 124-126, 133-140 y 145-146 parecen ser nuevas, ya que la técnica anterior disponible no describe un anticuerpo anti-IL13 cristalino o un

complejo cristalino que comprende este anticuerpo, o un complejo que comprende un polipéptido IL-13Rα1 y un polipéptido IL-13.

La técnica anterior citada no describe adicionalmente un método que usa un modelo tridimensional de un anticuerpo anti-IL-13, o un modelo tridimensional de un complejo que comprende un polipéptido IL-13 unido a un anticuerpo anit-IL-13 o a un polipéptido IL-13Rα1.

2 Actividad Inventiva (Art. 33(3) del PCT)

2.1 La materia objetivo de las reivindicaciones 1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110, 111, 124-126, 133-140, 145-146 se considera que carece de actividad inventiva por las siguientes razones.

Los anticuerpos monoclonales anti-IL-13 se conocen de la técnica anterior, por ejemplo, de **D2**.

Los métodos para la cristalización de concentraciones altas de todos los anticuerpos o fragmentos de anticuerpos en lotes grandes también son conocidos en la técnica, por ejemplo, **D3**.

Por lo tanto, la provisión de anticuerpos anti-IL-13 cristalinos se podría lograr mediante métodos estándares sin requerir de capacidad inventiva.

Además, **D1** proporciona la estructura de solución tridimensional de IL-13. También se conoce de **D1** que IOL-13 se une a la cadena de unión IL-13 (IL-13Rα1) con afinidad relativamente alta (D1, [0086]).

Como se describió por ejemplo, en D4, nuevos desarrollos técnicos han ayudado al desarrollo de cristalografía de rayos X de alto rendimiento y han llevado a un incremento fuerte en el número de estructuras de proteínas. Las técnicas de cristalización ahora son usadas rutinariamente. Empezando a partir de proteínas o complejos de proteína conocidos (IL-13/anti-IL-13, IL-13/IL-13Rα1) las formas cristalinas reclamadas podrían así haber sido obtenidas al usar métodos estándares, especialmente ya que no existe indicación en la presente solicitud de que fueron encontradas algunas dificultades particulares.

Por lo tanto, una contribución inventiva no se puede reconocer de las reivindicaciones antes mencionadas en referencia a proteínas o complejos cristalinos (reivindicaciones 1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 133-136).

El uso de estructuras tridimensionales en diseño de fármacos es también bien conocido, y descrito por ejemplo, en D4. Los métodos que usan las coordenadas de estructura de complejos de anticuerpo-antígeno cristalino para diseñar entidades o compuestos químicos que específicamente unen el antígeno o modulan su actividad se describen por ejemplo, en D5 (véase resumen). Por lo tanto, también las reivindicaciones de método anteriormente mencionadas (reivindicaciones 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110, 111, 124-126, 137-140, 145-146) no se considera que incluyen una actividad inventiva

2.2 Las reivindicaciones 11, 12, 16, 32, 33, 40, 51, 52, 64, 69, 70, 85, 94, 99, 101, 108, 109, 112, 113 se refieren a anticuerpo monoclonal específico IL-13 mAb13.2 o a un fragmento mAb13.2 Fab, caracterizado por SEQ ID NO:1 (cadena ligera de mAb13.2 Fab) y SEQ ID NO: 2 (cadena pesada de mAb13.2 Fab).

MAb13.2 demuestra que neutraliza la bioactividad de IL-13 (ejemplos 1 y 2). MAb13.2 se une con alta afinidad a una región de IL-13 que normalmente se une a IL-4Rα, y puede unirse a IL-13 que está unida al monómero IL-13Rα1 (ejemplo 3, Fig. 4).

Como se ha mencionado arriba, se conoce la neutralización de mAbs específico para IL-13, por ejemplo, de D2.

En cuanto a lo que la materia objetivo reclamada se refiere a mAb13.2, el problema técnico a ser resuelto en vista de D2 se puede definir como la provisión de un anticuerpo monoclonal alternativo con alta afinidad para una región de IL-13 que normalmente se une a IL-4Rα, y que puede unirse a IL-13 que está unida al monómero IL-13Rα1.

Este problema ha sido resuelto en la presente solicitud por la provisión de un anticuerpo específico, mAb13.2, definido por SEQ ID NO:1 y SEQ ID NO: 2.

Ya que la descripción no describe un método que difiere de los métodos conocidos de producción de anticuerpos y que podría permitir la producción consistente de anticuerpos con las características de mAb13.2, sólo este anticuerpo específico caracterizado por SEQ ID NO: 1 y SEQ ID NO:2, así como la materia objetivo que se refiere a este anticuerpo, se considera que incluye una actividad inventiva.

TRATADO DE COOPERACION EN MATERIA DE PATENTES

PCT

REPORTE DE BUSQUEDA INTERNACIONAL

(Artículo 18 y Reglas 43 y 44 del PCT)

Referencia de archivo del solicitante o apoderado: 16163-029WO1	PARA UNA ACCION ADICIONAL	Véase la Notificación de transmisión del reporte de examen preliminar internacional (Forma PCT/ISA/220), así como, cuando sea aplicable, ítem 5 abajo
No. de solicitud internacional: PCT/US2005/020334	Fecha de presentación internacional *(día/mes/año)*: 09/06/2005	Fecha de prioridad (la más inicial) *(día/mes/año)*: 09/06/2004
Solicitante: WYETH		

Este reporte de búsqueda internacional ha sido preparado por esta Autoridad de Búsqueda Internacional y se transmite al solicitante de acuerdo al Artículo 18. Una copia se transmite a la Oficina Internacional.

Este reporte de búsqueda internacional consiste de un total de 8 hojas.

[X] También está acompañado de una copia de cada documento de la técnica previa citado en este reporte.

1. Base del reporte

a. [X] Con respecto al idioma, la búsqueda internacional se llevó a cabo con base en la solicitud internacional en el idioma en el cual fue presentada, a menos que se indique de otra forma bajo este ítem.

[ ] La búsqueda internacional se llevó a cabo con base en una traducción de la solicitud internacional presentada ante esta autoridad (Regla 23.1(b)).

b. Con respecto a cualquier secuencia de nucleótidos y/o aminoácidos descrita en la solicitud internacional, la búsqueda internacional, véase Bloque No. I

2. [X] Se encontró que ciertas reivindicaciones eran inescrutables (Véase Bloque II).

3. [ ] Se carece de unidad de la invención (Véase bloque III).

4. Con respecto al título

[ ] el texto está aprobado como se presentó por el solicitante.

[X] el texto ha sido establecido por esta Autoridad para leerse como sigue:

ANTICUERPOS ANTI-IL-13, CRISTALES DE ANTICUERPOS ANTI-IL-13 Y COMPLEJOS QUE LOS COMPRENDEN

5. Con respecto al extracto,

[X] el texto está aprobado como se presentó por el solicitante.

[ ] el texto ha sido establecido, de acuerdo a la Regla 38.2(b), por esta Autoridad como aparece en el bloque III. El solicitante puede, en el término de un mes a partir de la fecha de envío de este reporte de búsqueda internacional, presentar comentarios a esta Autoridad.

6. La figura de los dibujos a ser publicada con el extracto es la Figura No. 3

[X] como se sugiere por el solicitante. [ ] Ninguna de las figuras

[ ] debido a que el solicitante fracaso en sugerir una figura.

[ ] debido a que esta figura caracteriza mejor la invención.

nn783

REPORTE DE BUSQUEDA INTERNACIONAL

No. de solicitud internacional
PCT/US2005/020334

A. CLASIFICACION DEL TEMA

IPC7: C07K16/24 G06F19/00

De acuerdo a la Clasificación de Patentes Internacional (IPC) o a la clasificación nacional y a la IPC.

B. CAMPOS BUSCADOS

documentación mínima buscada (sistema de clasificación seguido por los símbolos de clasificación):
C07K G06F

Documentación buscada diferente a la documentación mínima, a la extensión que tales documentos están incluidos en los campos buscados :

Base de datos electrónicos consultados durante la búsqueda internacional (nombre de la base de datos y, en donde sea práctico, términos de búsqueda utilizados):
EPO-Internal, BIOSISI, EMBASE, Sequence Search

C. DOCUMENTOS QUE SE CONSIDERA QUE SON RELEVANTES

Categoría*	Cita del documento, con indicación, en donde sea apropiado, de los pasajes relevantes	Relevante para la Reiv. No.
X	WO 02/101629 A (WYETH) 19 Diciembre 2002 (2002-12-19) página 1 - página 48	1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110,111, 124-126, 133-140, 145,146

[X] Documentos adicionales se enlistan en la continuación del bloque C [X] Véase familia de patentes anexa.

* Categorías especiales de los documentos citados
"A" documento que define el estado general de la técnica el cual no se considera ser de particular relevancia.

"E" documento anterior publicado en o después de la fecha de presentación internacional.

"L" documento el cual puede arrojar dudas sobre la(s) reivindicacion(es) de prioridad o el cual se cita para establecer la fecha de publicación de otra cita u otra razón especial (como se especifica)

"O" documento que se refiere a una descripción oral, uso, exhibición u otro medio

"P" documento publicado antes de la fecha de presentación internacional pero después de la fecha de prioridad reivindicada.

"T" documento posterior publicado después de la fecha de presentación internacional o fecha de prioridad y no en conflicto con la solicitud, pero citado para entender el principio o teoría fundamental de la invención.

"X" documento de relevancia particular; la invención reivindicada no puede ser considerada nueva o no se puede considerar que involucre una etapa inventiva cuando el documento es considerado de manera aislada.

"Y" documento de particular relevancia; no se puede considerar que la invención involucre una etapa inventiva cuando el documento es combinado con uno o más de tales documentos, tal combinación sería obvia para una persona experimentada en la técnica.

"&" documento miembro de la misma familia de patentes.

Fecha de la terminación real de la búsqueda internacional	Fecha de envío del reporte de búsqueda internacional
8 Marzo 2006	15/03/2006
Nombre y dirección de correspondencia de la ISA/ European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Funcionario Autorizado Dumont, E

Forma PCT/ISA/210 (segunda hoja) (Julio de 1992)

REPORTE DE BUSQUEDA INTERNACIONAL

No. de solicitud internacional
PCT/US2005/020334

C. (Continuación) DOCUMENTOS QUE SE CONSIDERA QUE SON RELEVANTES

Categoría*	Cita del documento, con indicación, en donde sea apropiado, de los pasajes relevantes	Relevante para la Reiv. No.
X	MOY FRANKLIN J ET AL: "Solution structure of human IL-13 and implication for receptor binding" JOURNAL OF MOLECULAR BIOLOGY, vol. 310, no. 1, 29 Junio 2001 (2001-06-29), páginas 219-230, XP004464193 ISSN: 0022-2836	1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110,111, 124-126, 133-140, 145,146
	resumen página 227, columna 2, last paragraph	
	PUNNONEN ET AL: "The relative contribution of IL-4 and IL-13 to human IgE synthesis induced by activated CD4<+> or CD8<+> T cells" JOURNAL OF ALLERGY AND CLINICAL IMMUNOLOGY, MOSBY - YEARLY BOOK, INC, US, vol. 100, no. 6, December 1997 (1997-12), páginas 792-801, XP005138233 ISSN: 0091-6749	1-10, 13-15, 17-31, 34-39, 41-50, 53-63, 65-68, 71-84, 86-93, 95-98, 100, 102-107, 110,111, 124-126, 133-140, 145,146
	todo el documento	
	US 2002/136719 A1 (SHENOY BHAMI ET AL) 26 Septiembre 2002 (2002-09-26)	1-113, 124-126, 133-140, 145,146
	todo el documento	
	BLUNDELL T L ET AL: "HIGH-THROUGHPUT CRYSTALLOGRAPHY FOR LEAD DISCOVERY IN DRUG DESIGN" NATURE REVIEWS. DRUG DISCOVERY, NATURE PUBLISHING GROUP, BASINGSTOKE, GB, vol. 1, no. 1, Enero 2002 (2002-01), páginas 45-54, XP009023187 ISSN: 1474-1784	1-113, 124-126, 133-140, 145,146
	todo el documento	

-/-

REPORTE DE BUSQUEDA INTERNACIONAL

No. de solicitud internacional
PCT/US2005/020334

C. (Continuación) DOCUMENTOS QUE SE CONSIDERA QUE SON RELEVANTES

Categoría*	Cita del documento, con indicación, en donde sea apropiado, de los pasajes relevantes	Relevante para la Reiv. No.
A	WO 02/18445 A (BIOGEN, INC; KARPUSAS, MICHAEL; HSU, YEN-MING; TAYLOR, FREDERICK, R; Z) 7 Marzo 2002 (2002-03-07) resumen reivindicaciones 1-109	1-113, 124-126, 133-140, 145,146

INFORMACIÓN ADICIONAL QUE CONTINUA DE PCT/ISA/210

Continuación de Bloque II.1

Las reivindicaciones 151-166 se dirigen a un método de tratamiento del cuerpo humano/animal.

Continuación de bloque II.1

Regla 39.1 (v) del PCT – Presentación de información

Regla 39.1 (iv) del PCT – Método para tratamiento del cuerpo humano/animal mediante terapia.

Continuación del Bloque II.2

Las reivindicaciones Nos.: 114-123, 127-132, 147-144, 147-182

La materia objetivo de las reivindicaciones 114-123, 127-132, 141-144, 147-150 se refiere a sistemas de software y programas de cómputo que se consideran materia objetivo excluida dentro del significado de la Regla 39(vi) del PCT (véase también Guía del PCT 9.15). Así, las reivindicaciones anteriormente mencionadas no se buscarán.

Las reivindicaciones actuales 151-182 abarca compuestos (agentes) definidos sólo por su función deseada (modulación de actividad IL-3), contrario a los requerimientos de claridad del Artículo 6 del PCT, ya que el tipo de resultado a ser logrado de definición no que permite el alcance de la reivindicación sea determinado. El hecho de que cualquier compuesto podría ser aislado no supera esta objeción, ya que la persona capacitada podría no haber sabido con anticipación si caería o no dentro del alcance reclamado. Experimentación excesiva podría ser requerida para aislar compuestos aleatoriamente. Esta inconformidad con las provisiones sustantivas es a tal grado que no se ha podido llevar a cabo una búsqueda significativa de las reivindicaciones 151-182 en su totalidad (Artículo 17(2) del PCT y Guía del PCT 9.26).

Se atrae la atención del solicitante al hecho de que las reivindicaciones, o partes de las reivindicaciones, que se refieren a invenciones con respecto de las cuales no se haya establecido

reporte de búsqueda internacional alguno no tienen que ser la materia de un examen preliminar internacional (Regla 66.1(e) del PCT). Se aclara al solicitante que la política de la EPO cuando actúa como una Autoridad Examinadora Preliminar Internacional normalmente no es la de llevar a cabo un examen preliminar en materia que no haya sido escrutada. Este es el caso sin importar si las reivindicaciones son o no enmendadas después de recibir el reporte de búsqueda o durante ningún procedimiento del Capítulo II. Si la solicitud procede a la fase regional ante la EPO, se recuerda al solicitante que puede llevarse a cabo una búsqueda durante el examen ante la EPO (véase Lineamiento C-VI, 8.5 de la EPO), si es que los problemas que llevaran a la declaración conforme al Artículo 17(2) fueran superados.

REPORTE DE BUSQUEDA INTERNACIONAL

No. de solicitud internacional
PCT/US2005/020334

Bloque II Observaciones cuando ciertas reivindicaciones se encontraron inescrutables (Continuación del ítem 2 de la primera hoja)

Este Reporte de Búsqueda Internacional no ha sido establecido con respecto a ciertas reivindicaciones bajo el Artículo 17(2)(a) por las siguientes razones:

1. ☒ Nos. de reivindicaciones: 114-123, 127-132, 141-144, 147-182
porque se refieren a materia que no se requirió buscar por esta Autoridad, a saber:
Reivindicaciones 151-166 se dirigen a un método de tratamiento del cuerpo humano/animal

2. ☒ Nos. de reivindicaciones: 114-123, 127-132, 141-144, 147-182
porque se refieren a partes de la Solicitud Internacional que no cumplen con los requerimientos prescritos a tal grado de que no se pudo llevar a cabo ninguna Búsqueda Internacional significativa, especificamente:

véase hoja de INFORMACIÓN ADICIONAL PCT/ISA/210

3. ☐ Nos. de reivindicaciones:
porque son reivindicaciones dependientes y no están redactadas de acuerdo con la segunda y tercera frases de la Regla 6.4(a).

Bloque III Observaciones cuando carece unidad de invención (Continuación del ítem 3 de la primera hoja)

Esta Autoridad de Búsqueda Internacional encontró varios inventores en esta solicitud internacional, como sigue

1. ☐ Ya que se pagaron a tiempo por el solicitante todas las cuotas de búsqueda adicionales requeridas, este Reporte de Búsqueda Internacional cubre todas las reivindicaciones escrutables.

2. ☐ Ya que todas las reivindicaciones escrutables pudieron escrutarse sin esfuerzo que justificara una cuota adicional, esta Autoridad no solicitó el pago de ninguna cuota adicional.

3. ☐ Ya que sólo algunas de las cuotas de búsqueda adicionales requeridas se pagaron a tiempo por el solicitante, este Reporte de Búsqueda Internacional cubre sólo las reivindicaciones para las cuales se pagaron cuotas, especificamente las reivindicaciones Nos.:

4. ☐ No se pagaron a tiempo por el solicitante las cuotas de búsqueda adicionales requeridas. En consecuencia, este Reporte de Búsqueda Internacional está restringido a la invención mencionada primero en las reivindicaciones; está cubierta por las Reivindicaciones Nos.:

Aclaración acerca de la Protesta

☐ Las cuotas de búsqueda adicionales estaban acompañadas por la protesta del solicitante.

☐ Ninguna protesta acompañó al pago de las cuotas de Búsqueda adicionales.

REPORTE DE BUSQUEDA INTERNACIONAL

Información acerca de los miembros de la familia de patentes

No. de solicitud internacional
PCT/US2005/020334

Documento de patente citado en el reporte de búsqueda	Fecha de publicación	Miembro(s) de la familia de patentes	Fecha de publicación
WO 02101629 A	19-12-2002	CA 2450147 A1	19-12-2002
		EP 1402451 A1	31-03-2004
		JP 2005506960 T	10-03-2005
		MX PA03011158 A	27-02-2004
		ZA 200309894 A	29-09-2004
US 2002136719 A1	26-09-2002	NINGUNO	
WO 0218445 A	07-03-2002	AU 8867501 A	13-03-2002
		CA 2421055 A1	07-03-2002
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		JP 2004517814 T	17-06-2004

Retiro Folios 792 y 793 "Tarjetas"

Industria y Comercio
SUPERINTENDENCIA

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISION DE NUEVAS CREACIONES
EXTRACTO PARA PUBLICACIÓN
SOLICITUD DE PATENTE DE INVENCIÓN PCT

nn 280

(21) N° de solicitud: 06119149	(51) Int Cl: C07K 16/24; G06F 19/00
22) Fecha de solicitud: 24/11/2006	(71)Solicitante(s) WYETH
(30) Prioridad (31) No. 32) Fecha (33) País 60/578.736 09/06/04 US 60/578.473 09/06/04 US 60/581.375 22/06/04 US	(72) Inventor(es)
	(74) Apoderado: ALVARO CORREA ORDOÑEZ
(85) Fecha límite inicio fase nacional: 09/01/07 (86) Datos relativos a la presentación de la solicitud PCT Fecha de presentación de la solicitud: 09/06/05 No. de solicitud PCT/US2005/020334	(87) Publicación Internacional Fecha: 22/12/05 N° publicación: WO2005/121177

(54) Título: **ANTICUERPOS ANTI-IL-13 Y COMPLEJOS**

Reivindicación(es):

1. Un anticuerpo cristalino, caracterizado porque comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

17. Una composición cristalina caracterizada porque comprende un anticuerpo, en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

22. Un complejo cristalino, caracterizado porque comprende:
un polipéptido IL-13 y un anticuerpo, en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

42. Un complejo cristalino caracterizado porque comprende:
un polipéptido IL-13Rα1 y un polipéptido IL-13.

65. Un método caracterizado porque comprende:
usar un modelo tridimensional de un anticuerpo para diseñar un agente que interactúe con un polipéptido IL-13, en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13.

78. Un método caracterizado porque comprende:
usar un modelo tridimensional de un polipéptido IL-13 para diseñar un agente que interactúe con el polipéptido IL-13.

89. Un método caracterizado porque comprende:
usar un modelo tridimensional de un polipéptido IL-13 unido a un polipéptido IL-13Rα1 para diseñar un agente que interactúe con el polipéptido IL-13.

95. Un método caracterizado porque comprende:
seleccionar un agente al llevar a cabo diseño racional de fármaco con un modelo tridimensional de un complejo cristalino que comprende un polipéptido IL-13; poner en contacto el agente con un polipéptido IL-13 y detectar la capacidad del agente para unirse al polipéptido IL-13.

106. Un método caracterizado porque comprende:
poner en contacto un polipéptido IL-13 con un anticuerpo para formar una composición y cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo se una al polipéptido IL-13, en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

110. Un método caracterizado porque comprende:
poner en contacto un polipéptido IL-13 con un anticuerpo y un polipéptido IL-13Rα1 para formar una composición y cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo y el polipéptido IL-13Rα1 se unan cada uno al polipéptido IL-13, en donde el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

114. Un sistema de software caracterizado porque comprende instrucciones para hacer que un sistema de computadora:
acepte información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13; aceptar información que se refiera a un agente candidato y determinar características de unión del agente candidato al polipéptido IL-13, en donde la determinación se basa en la información que se refiere a la estructura del polipéptido IL-13 y la información que se refiere al agente candidato.

122. Un programa de computadora caracterizado porque reside en un medio legible por computadora que tiene una pluralidad de instrucciones almacenadas en el mismo, las cuales, cuando son ejecutadas por uno o más procesadores, hacen que el uno o más procesadores:
acepten información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo comprende un polipéptido anti-IL-13 o un fragmento Fab de un anticuerpo IL-13; acepten información que se refiera a un agente candidato y determinen características de unión del agente candidato al polipéptido IL-13, en donde la determinación se basa en la información que se refiere a la estructura del polipéptido IL-13 e información que se refiere al agente candidato.

124. Un método caracterizado porque comprende:
aceptar información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo comprende un anticuerpo anti-IL-13 o un fragmento Fab de un anticuerpo anti-IL-13 y modelar las características de unión del polipéptido IL-13 con un agente candidato, en donde el método es implementado por un sistema de software.

127. Un programa de computadora caracterizado porque reside en un medio legible por computadora que tiene una pluralidad de instrucciones almacenadas en el mismo, las cuales, cuando son ejecutadas por uno o más procesadores, hacen que el uno o más procesadores:
acepten información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo comprende un polipéptido anti-IL-13 o un fragmento Fab de un anticuerpo IL-13 y modelen las características de unión del polipéptido IL-13 con un agente candidato

133. Un anticuerpo cristalino, caracterizado porque el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

134. Una composición cristalina que comprende un anticuerpo, caracterizada porque el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

135. Un complejo cristalino, caracterizado porque comprende:
un polipéptido IL-13 y un anticuerpo, en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

136. Un complejo cristalino, caracterizado porque comprende:
un polipéptido IL-13; un polipéptido IL-13Rα1 y un anticuerpo, en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

137. Un método caracterizado porque comprende:

usar un modelo tridimensional de un anticuerpo para diseñar un agente que interactúe con un polipéptido IL-13, en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R.

139. Un método caracterizado porque comprende:

poner en contacto un polipéptido IL-13 con un anticuerpo para formar una composición y cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo se una al polipéptido IL-13, en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

140. Un método caracterizado porque comprende:

poner en contacto un polipéptido IL-13 con un anticuerpo y un polipéptido IL-13Rα1 para formar una composición y cristalizar la composición para formar un complejo cristalino en el cual el anticuerpo y el polipéptido IL-13Rα1 se unan cada uno al polipéptido IL-13, en donde el anticuerpo es capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R, y el complejo cristalino puede difractar rayos X hasta una resolución de al menos aproximadamente 3.5 Å.

141. Un sistema de software caracterizado porque comprende instrucciones para hacer que un sistema de computadora:

acepte información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R; aceptar información que se refiera a un agente candidato y determinar características de unión del agente candidato al polipéptido IL-13, en donde la determinación se basa en la información que se refiere a la estructura del polipéptido IL-13 y la información que se refiere al agente candidato.

143. Un programa de computadora caracterizado porque reside en un medio legible por computadora que tiene una pluralidad de instrucciones almacenadas en el mismo, las cuales, cuando son ejecutadas por uno o más procesadores, hacen que el uno o más procesadores:

acepten información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R; acepten información que se refiera a un agente candidato y determinen características de unión del agente candidato al polipéptido IL-13, en donde la determinación se basa en la información que se refiere a la estructura del polipéptido IL-13 e información que se refiere al agente candidato.

145. Un método caracterizado porque comprende:

aceptar información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R y modelar las características de unión del polipéptido IL-13 con un agente candidato, en donde el método es implementado por un sistema de software.

147. Un programa de computadora caracterizado porque reside en un medio legible por computadora que tiene una pluralidad de instrucciones almacenadas en el mismo, las cuales, cuando son ejecutadas por uno o más procesadores, hacen que el uno o más procesadores:

acepten información que se refiera a la estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R y modelen las características de unión del polipéptido IL-13 con un agente candidato.

149. Un sistema de software caracterizado porque comprende instrucciones para hacer que un sistema de computadora:

acepte información que se refiera a una estructura de un polipéptido IL-13 unido a un anticuerpo, el anticuerpo siendo capaz de unirse a un sitio de un polipéptido IL-13 al cual se une *in vivo* un polipéptido IL-4R y modele las características de unión del polipéptido IL-13 con un agente candidato.

151. Un método para modular la actividad de IL-13 en un sujeto, caracterizado porque comprende:

usar diseño racional de fármacos para seleccionar un agente que sea capaz de modular la actividad de IL-13 y administrar una cantidad terapéuticamente efectiva del agente al sujeto.

156. Un método para tratar un sujeto que tenga una condición asociada con actividad de IL-13, caracterizado porque comprende:

usar diseño racional de fármacos para seleccionar un agente que sea capaz de efectuar actividad de IL-13 y administrar una cantidad terapéuticamente efectiva del agente a un sujeto en necesidad del mismo.

161. Un método para tratar profilácticamente un sujeto susceptible a una condición asociada con actividad de IL-13, caracterizado porque comprende:

determinar que el sujeto sea susceptible a la condición asociada con actividad de IL-13; usar diseño racional de fármacos para seleccionar un agente que sea capaz de efectuar actividad de IL-13 y administrar una cantidad terapéuticamente efectiva del agente al sujeto.

167. Uso de un agente diseñado o seleccionado de conformidad con cualquiera de las reivindicaciones 64-97 ó 129 ó 130, en la preparación de un medicamento para la profilaxis o el tratamiento de una condición asociada con actividad de IL-13.

175. Un agente caracterizado porque se diseña o selecciona de conformidad con cualquiera de las reivindicaciones 65-105 ó 129 ó 130, para usarse en la profilaxis o el tratamiento de una condición asociada con actividad de IL-13.

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SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
Rad: 06-119148- -00000-0000
Fec: 2006-11-24 16:01:35 Dep: 2020 NUEGREACIONES
Tra: 11 PATENTEIYII
Eve: 375 FASENACIONALI
Act: 411 DESISTIMIENTO Folios: 701

REQUISITOS MINIMOS PARA ADMISION A TRAMITE
PCT

PATENTE DE INVENCION [ ] MODELO DE UTILIDAD [ ]

- Indicación de que se solicita la concesión de una patente [ ]
- Datos de identificación del solicitante o de la persona que presenta la solicitud [ ]
- Descripción de la invención [ ]
- Dibujos de ser estos pertinentes [ ]
- Comprobante de pago de las tasas establecidas [ ]

COMPLETA [ ] INCOMPLETA [ ]

DISEÑO INDUSTRIAL [ ]

- Indicación de que se solicita el registro de Diseño Industrial [ ]
- Datos de identificación del solicitante o de la persona que presenta la solicitud [ ]
- Representación gráfica y fotográfica del Diseño Industrial o muestra del material que incorpora el diseño [ ]
- Comprobante de pago de las tasas establecidas [ ]

COMPLETA [ ] INCOMPLETA [ ]

ESQUEMA DE TRAZADO [ ]

- Indicación de que se solicita el registro de un Esquema de Trazado [ ]
- Datos de identificación del solicitante o de la persona que presenta la solicitud [ ]
- Representación gráfica del esquema trazado [ ]
- Comprobante de pago de las tasas establecidas [ ]

COMPLETA [ ] INCOMPLETA [ ]

Edo B
Firma Responsable

Fecha 24 nov-6

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Bogotá, D.C., Colombia

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REPUBLICA DE COLOMBIA

SUPERINTENDENCIA DE INDUSTRIA Y COMERCI

Bogotá,
2020

Doctor(a)
CORREA ORDOÑEZ ALVARO
Apoderado(a) y/o Representante de
WYETH

REFERENCIA	Radicación No.	6 119149
	Solicitud internacional	PCT/US2005/020334
	Fecha inicio fase nacional	09/01/2007
	Trámite	11
	Evento	378
	Actuación	430
	Oficio No.	0 0 0 0 1872

Como resultado del examen de forma, realizado con fundamento en el artículo 38 de la Decisión 486 de la Comisión de la Comunidad Andina, artículo 27 del Tratado de Cooperación en Materia de Patentes (PCT), regla 51 bis del Reglamento y Circular Única de la Superintendencia de Industria y Comercio, se le comunica que:

1. La solicitud no contiene la copia del documento en que consta la cesión del derecho a la patente del inventor al solicitante o a su causante. (Art. 26-k) Decisión 486.

En cumplimiento de lo dispuesto por el artículo 39 de la Decisión 486, se le requiere para que dentro del término de dos meses siguientes a la fecha de notificación del presente oficio, complete los requisitos anteriormente enunciados. En caso de no dar cumplimiento al presente requerimiento, la solicitud se considerará abandonada y perderá su prelación.

Notifíquese el presente oficio conforme a lo dispuesto en el numeral 5.2, literal e), del capítulo quinto del título primero de la Circular Unica No.10 de 2001.

ALIX CARMENZA CERVANTES DE VERGEL
Jefe de la división de Nuevas Creaciones

El anterior requerimiento fue notificado por fijación en lista de fecha 08 FEB. 2007
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