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Fecha: 2009-05-15 18:31:55 Dep. 2020 NUECREACIONE
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Act. 329 GTOINFORMACION Folios: 22

Señores

SUPERINTENDENCIA DE INDUSTRIA Y COMERCIO
DIVISIÓN DE NUEVAS CREACIONES

E. _____ S. _____ D. _____

Ref: Expediente N°. 09-047.482

Solicitud de Patente de Invención titulada: "ANTICUERPOS AGONISTAS DEL TRKB Y USOS DE LOS MISMOS".

Solicitante: IRM LLC

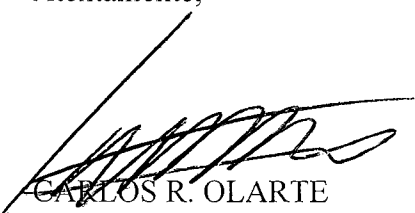
Nuestra Ref: P2009/000077

MEMORIAL DE ALCANCE

CARLOS R. OLARTE, mayor de edad y vecino de Bogotá, identificado tal como aparece al pie de mi firma, en mi carácter de apoderado de la sociedad en referencia, me permito adjuntar copia del listado de las secuencias correspondientes a la solicitud de patente presentada ante ese Despacho el 11 de May de 2009, las cuales forman parte de la invención en referencia.

Igualmente, me permito aportar junto al presente memorial copia traducida de los dibujos correspondientes a la solicitud internacional de la patente en referencia.

Atentamente,


CARLOS R. OLARTE
C.C. N°. 79.782.747 de Bogotá
T.P. 74.295

Anexos: Copia Listado de Secuencias
Copia traducida de los dibujos

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IN THE EUROPEAN PATENT OFFICE
BEFORE THE INTERNATIONAL SEARCHING AUTHORITY

Atty. Docket No: P1275PC10

In re International Application:

IRM, LLC

International Application No.: PCT/US07/083774

International Filing Date: November 6, 2007

For: AGONIST TRKB ANTIBODIES AND USES THEREOF

European Patent Office
Storage and Retrieval of Amino
Acid and Nucleotide Data
Room POH09
Patentlaan 2
P.B. 5818
NL-2280 HV Rijswijk
The Netherlands

STATEMENT ACCOMPANYING SEQUENCE LISTING

Dear Sir:

The undersigned hereby states that the Sequence Listing submitted concurrently herewith does not include matter which goes beyond the content of the application as filed and that the information recorded on the diskette submitted concurrently herewith is identical to the written Sequence Listing.

Respectfully submitted,

May 12, 2008
Date

MA CA
Bridget Conroy

HARBOR CONSULTING IP SERVICES,
1500A Lafayette Road, #262
Portsmouth, NH 03801
800-318-3021

SEQUENCE LISTING

<110> IRM, LLC

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<130> P1275PC10

<140> PCT/US07/083774

<141> 2007-11-06

<150> 60/858,169

<151> 2006-11-09

<160> 18

<170> PatentIn version 3.3

<210> 1

<211> 120

<212> PRT

<213> Artificial Sequence

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			20					25					30		

Asp	Ile	Asn	Trp	Val	Lys	Gln	Arg	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile
	35						40					45			

Gly	Trp	Ile	Tyr	Pro	Arg	Asp	Gly	Ser	Ile	Lys	Phe	Asn	Glu	Lys	Phe
	50					55					60				

Lys	Gly	Lys	Ala	Thr	Leu	Thr	Val	Asp	Thr	Ser	Ser	Ser	Thr	Ala	Tyr
65					70					75				80	

Met	Glu	Leu	His	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Ala	Tyr	Phe	Cys
				85					90					95	

Ala	Arg	Arg	Gly	Arg	Leu	Leu	Leu	Tyr	Gly	Phe	Ala	Tyr	Trp	Gly	Gln
			100					105					110		

Gly	Thr	Leu	Val	Thr	Val	Ser	Ala
	115					120	

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 <211> 114
 <212> PRT
 <213> Artificial Sequence

<220>
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 polypeptide

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Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Ile His Ser
 20 25 30

Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80

Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
 85 90 95

Thr His Val Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
 100 105 110

Arg Ala

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<220>
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 polypeptide

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 1 5 10 15

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Ser Val Thr Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Glu Met His Trp Val Lys Gln Thr Pro Val His Gly Leu Glu Trp Ile
35 40 45

Gly Thr Ile Asp Pro Glu Thr Ala Gly Thr Ala Tyr Asn Gln Lys Phe
50 55 60

Lys Gly Lys Ala Ile Leu Thr Ala Gly Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
85 90 95

Thr Gly Val Thr Thr Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ala
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Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
20 25 30

Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45

Pro Asn Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80

100

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Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Gly
85 90 95

Thr His Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

Arg Ala

<210> 5
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peptide

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<210> 6
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
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1 5

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<213> Artificial Sequence

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Val Thr Thr Trp Phe Ala Tyr
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<210> 8
<211> 9
<212> PRT
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peptide

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<210> 9
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peptide

<400> 9
Ser Tyr Asp Ile Asn
1 5

<210> 10
<211> 16
<212> PRT
<213> Artificial Sequence

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peptide

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1 5 10 15

<210> 11
<211> 5
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<223> Description of Artificial Sequence: Synthetic
peptide

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Asp Tyr Glu Met His
1 5

<210> 12
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<220>

<223> Description of Artificial Sequence: Synthetic peptide

<400> 12

Arg Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His
1 5 10 15

<210> 13

<211> 17

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide

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Trp Ile Tyr Pro Arg Asp Gly Ser Ile Lys Phe Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 14

<211> 7

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 14

Lys Val Ser Asn Arg Phe Ser
1 5

<210> 15

<211> 17

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic peptide

<400> 15

Thr Ile Asp Pro Glu Thr Ala Gly Thr Ala Tyr Asn Gln Lys Phe Lys
1 5 10 15

Gly

9

<210> 16
 <211> 7
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 peptide

<400> 16
 Lys Val Ser Asn Arg Phe Ser
 1 5

<210> 17
 <211> 477
 <212> PRT
 <213> Homo sapiens

<400> 17
 Met Ser Ser Trp Ile Arg Trp His Gly Pro Ala Met Ala Arg Leu Trp
 1 5 10 15

Gly Phe Cys Trp Leu Val Val Gly Phe Trp Arg Ala Ala Phe Ala Cys
 20 25 30

Pro Thr Ser Cys Lys Cys Ser Ala Ser Arg Ile Trp Cys Ser Asp Pro
 35 40 45

Ser Pro Gly Ile Val Ala Phe Pro Arg Leu Glu Pro Asn Ser Val Asp
 50 55 60

Pro Glu Asn Ile Thr Glu Ile Phe Ile Ala Asn Gln Lys Arg Leu Glu
 65 70 75 80

Ile Ile Asn Glu Asp Asp Val Glu Ala Tyr Val Gly Leu Arg Asn Leu
 85 90 95

Thr Ile Val Asp Ser Gly Leu Lys Phe Val Ala His Lys Ala Phe Leu
 100 105 110

Lys Asn Ser Asn Leu Gln His Ile Asn Phe Thr Arg Asn Lys Leu Thr
 115 120 125

Ser Leu Ser Arg Lys His Phe Arg His Leu Asp Leu Ser Glu Leu Ile
 130 135 140

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Leu Val Gly Asn Pro Phe Thr Cys Ser Cys Asp Ile Met Trp Ile Lys
145 150 155 160

Thr Leu Gln Glu Ala Lys Ser Ser Pro Asp Thr Gln Asp Leu Tyr Cys
165 170 175

Leu Asn Glu Ser Ser Lys Asn Ile Pro Leu Ala Asn Leu Gln Ile Pro
180 185 190

Asn Cys Gly Leu Pro Ser Ala Asn Leu Ala Ala Pro Asn Leu Thr Val
195 200 205

Glu Glu Gly Lys Ser Ile Thr Leu Ser Cys Ser Val Ala Gly Asp Pro
210 215 220

Val Pro Asn Met Tyr Trp Asp Val Gly Asn Leu Val Ser Lys His Met
225 230 235 240

Asn Glu Thr Ser His Thr Gln Gly Ser Leu Arg Ile Thr Asn Ile Ser
245 250 255

Ser Asp Asp Ser Gly Lys Gln Ile Ser Cys Val Ala Glu Asn Leu Val
260 265 270

Gly Glu Asp Gln Asp Ser Val Asn Leu Thr Val His Phe Ala Pro Thr
275 280 285

Ile Thr Phe Leu Glu Ser Pro Thr Ser Asp His His Trp Cys Ile Pro
290 295 300

Phe Thr Val Lys Gly Asn Pro Lys Pro Ala Leu Gln Trp Phe Tyr Asn
305 310 315 320

Gly Ala Ile Leu Asn Glu Ser Lys Tyr Ile Cys Thr Lys Ile His Val
325 330 335

Thr Asn His Thr Glu Tyr His Gly Cys Leu Gln Leu Asp Asn Pro Thr
340 345 350

His Met Asn Asn Gly Asp Tyr Thr Leu Ile Ala Lys Asn Glu Tyr Gly
355 360 365

Lys Asp Glu Lys Gln Ile Ser Ala His Phe Met Gly Trp Pro Gly Ile
370 375 380

Asp Asp Gly Ala Asn Pro Asn Tyr Pro Asp Val Ile Tyr Glu Asp Tyr
385 390 395 400

Gly Thr Ala Ala Asn Asp Ile Gly Asp Thr Thr Asn Arg Ser Asn Glu
405 410 415

Ile Pro Ser Thr Asp Val Thr Asp Lys Thr Gly Arg Glu His Leu Ser
420 425 430

Val Tyr Ala Val Val Val Ile Ala Ser Val Val Gly Phe Cys Leu Leu
435 440 445

Val Met Leu Phe Leu Leu Lys Leu Ala Arg His Ser Lys Phe Gly Met
450 455 460

Lys Gly Phe Val Leu Phe His Lys Ile Pro Leu Asp Gly
465 470 475

<210> 18
<211> 144
<212> PRT
<213> Homo sapiens

<400> 18
Pro Thr Ile Thr Phe Leu Glu Ser Pro Thr Ser Asp His His Trp Cys
1 5 10 15

Ile Pro Phe Thr Val Lys Gly Asn Pro Lys Pro Ala Leu Gln Trp Phe
20 25 30

Tyr Asn Gly Ala Ile Leu Asn Glu Ser Lys Tyr Ile Cys Thr Lys Ile
35 40 45

His Val Thr Asn His Thr Glu Tyr His Gly Cys Leu Gln Leu Asp Asn
50 55 60

Pro Thr His Met Asn Asn Gly Asp Tyr Thr Leu Ile Ala Lys Asn Glu
65 70 75 80

Tyr Gly Lys Asp Glu Lys Gln Ile Ser Ala His Phe Met Gly Trp Pro
85 90 95

Gly Ile Asp Asp Gly Ala Asn Pro Asn Tyr Pro Asp Val Ile Tyr Glu
100 105 110

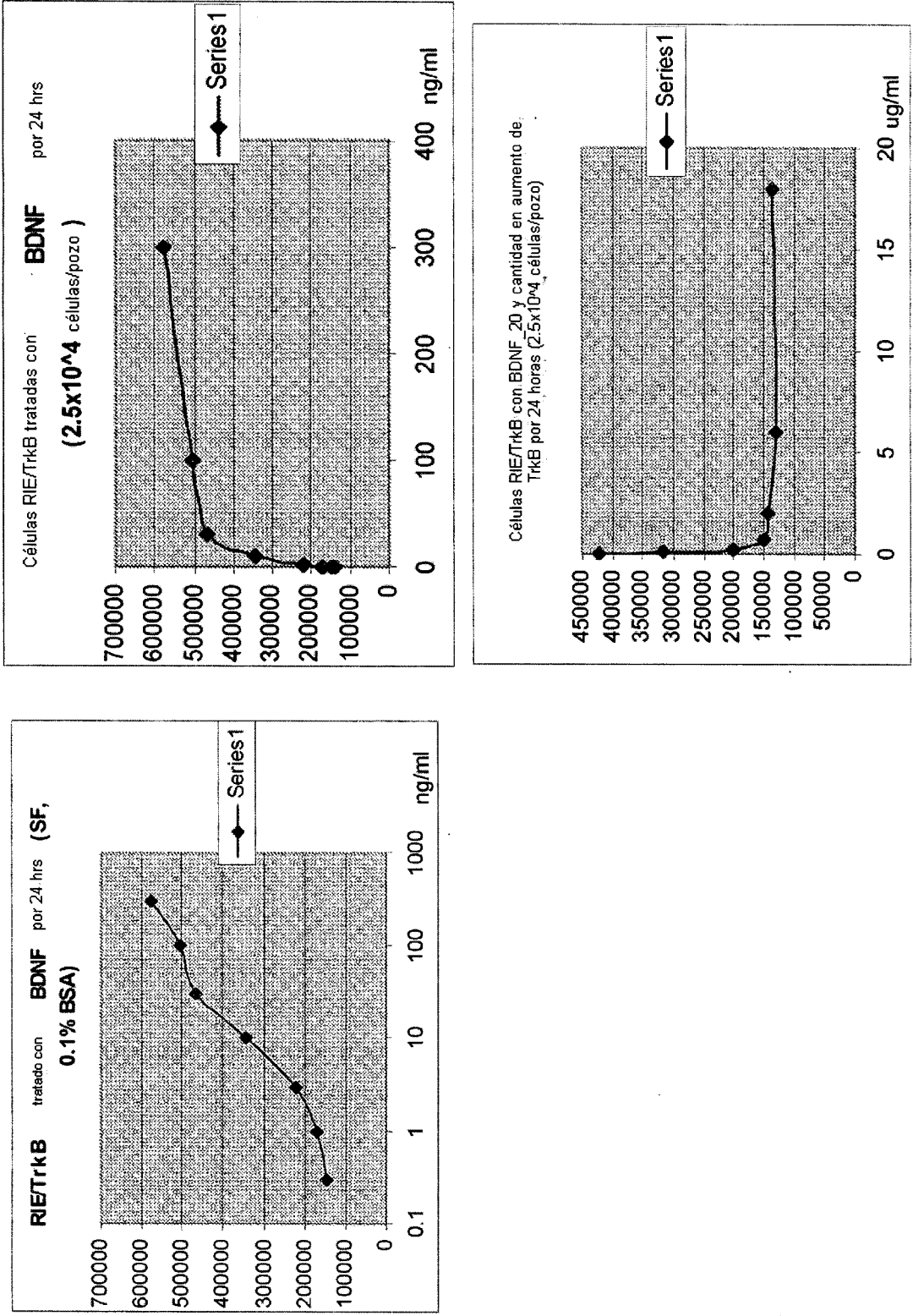
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12

Asp Tyr Gly Thr Ala Ala Asn Asp Ile Gly Asp Thr Thr Asn Arg Ser
115 120 125

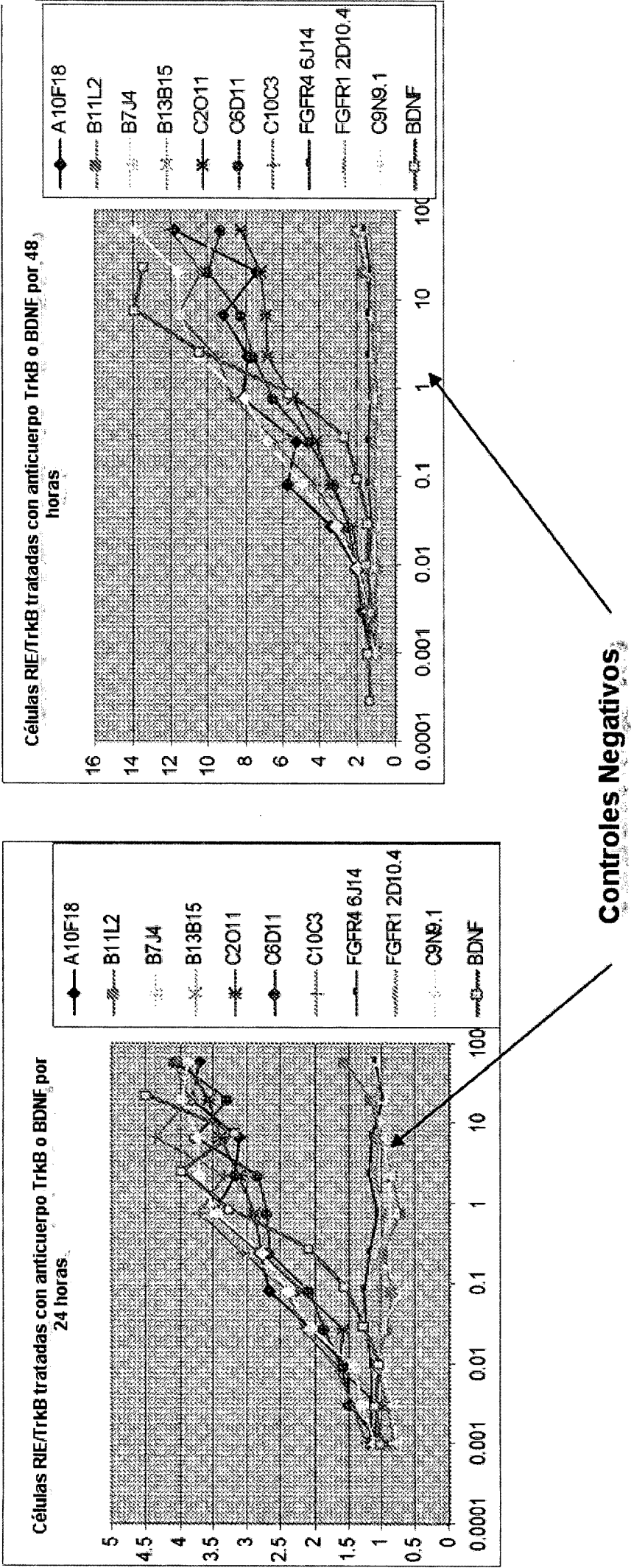
Asn Glu Ile Pro Ser Thr Asp Val Thr Asp Lys Thr Gly Arg Glu His
130 135 140

FIGURA 1



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FIGURA 2



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FIGURA 3

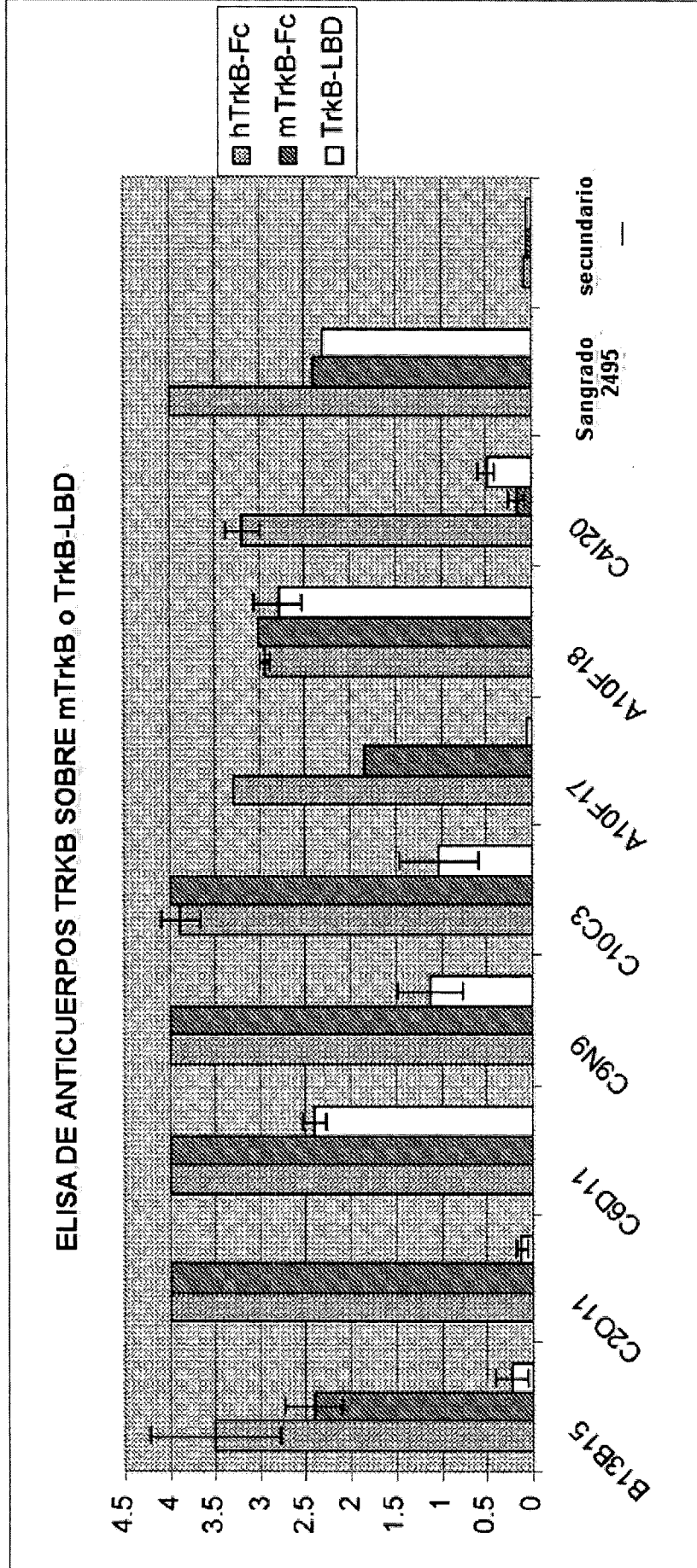
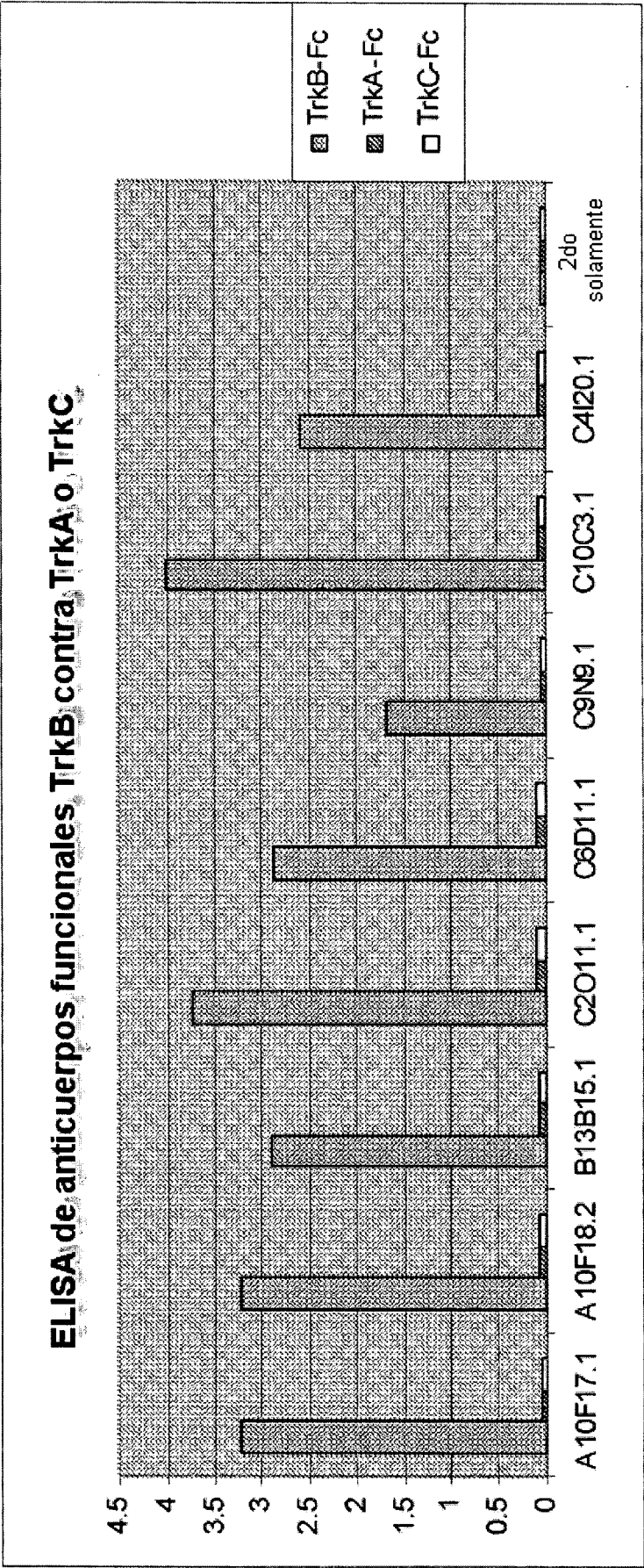


FIGURA 4



16

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FIGURA 5

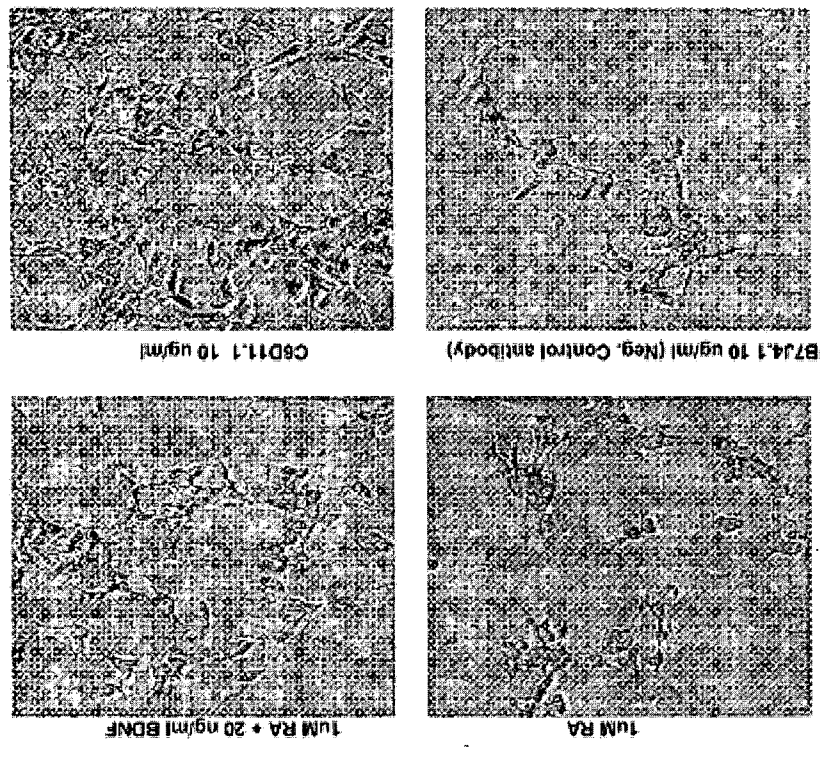


FIGURA 6

subclon	Anticuerpo control	IgG1	IgG2a	IgG2b	IgG3	IgA	IgM	Kappa cadena liviana	Lambda cadena liviana
A10F18.2		X						X	
B13B15.1		X						X	
C20I1.1		X						X	
C6D11.1			X					X	
C10C3.1		X						X	
C9N9.1		X						X	
C4I20.1		X						X	
A10F17.1		X							X

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FIGURA 7

SI	Isotipo	Actividad agonista	Se une a receptor murino X	se une a LBD	Inmunoblot
	A10F18.2	++	SI	SI	+
	B13B15.1	++	SI	NO	++
	C20I1.1	++	SI	NO	+++
	C6D11.1	++	SI	SI	++
	C10C3.1	++	SI	SI	++
	C9N9.1	++	SI	SI	++
	C4I20.1	++	NO	SI	+
	A10F17.1	++	SI	NO	+++

20

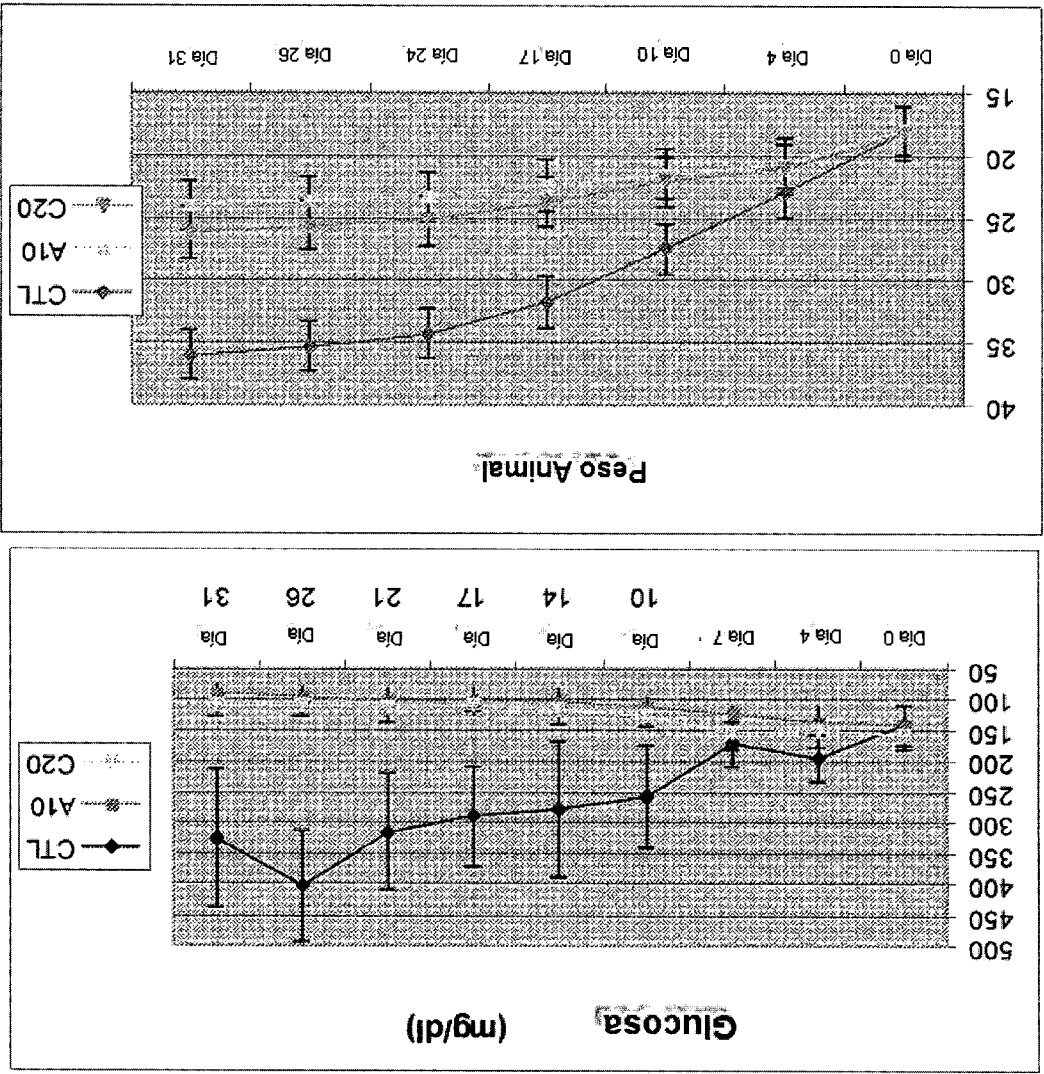
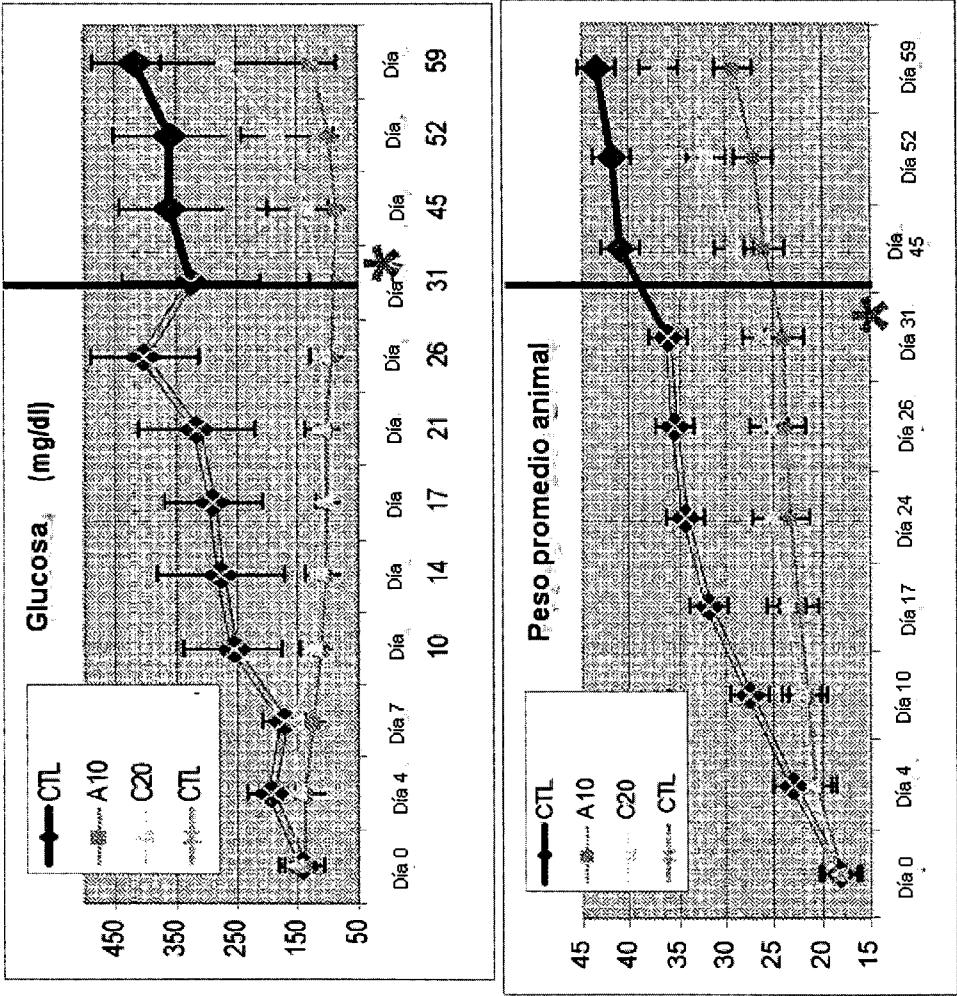


FIGURA 8

FIGURA 9



Día ~ 32 - grupo control dividido
- 4 animales tratados con PBS (azul oscuro)
- 4 animales tratados con A10 (azul claro)
- Grupos tratados originalmente se dejaron sin tratamiento por 4 semanas

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FIGURA 10

Primera secuencia CDR1 subrayada para cada uno
Segunda secuencia CDR1 subrayada para cada uno
Tercera secuencia CDR1 subrayada para cada uno

Anticuerpo C20 C20i1.1
Secuencias de aminoácidos
Cadena pesada:

QVQLQQSGPELVKPGASVKLSCKASGYTFTSYDINWVKQRPQGQGLEWIGWYPRDGSIKFNEKFKGKA
TLTVDTSSSTAYMELHSLTSEDSAAAYFCARRGRLLLYGFAYWGQGTLLTVSA

Cadena liviana:

DVVMTQLPLSLPVILGDQASISCRSSQSLIHSNGNTYLHWYLVKQPGQSPKLLIYKVSNRFSGVPDRFSG
SGSGTDFTLKISRVEAEDLGVYFCSSQSTHVPFTFGSGTKLEIKRA

Anticuerpo A10 A10F18.2
Secuencias de aminoácidos
Cadena pesada:

QVQLQQSGAELVRPGASVTLSCKASGYTFTDYEMHWVKQTPVHGLEWIGTIDPETAGTAYNQKFKGK
AILTAKSSSTAYMELRSLTSEDSAVYYCTGVTTWFAYWGQGTLLTVSA

Cadena liviana:

DVVMTQTPLSLPVSLGDQASISCRSSQSLVHSNGNTYLHWYLVKQPGQSPNLLIYKVSNRFSGVPDRFS
GSGSGTDFTLKISRVEAEDLGVYFCSSQGTHTVPTYFGGGKLEIKRA

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