

# LISTADO DE SECUENCIAS

<110> BRISTOL-MYERS SQUIBB COMPANY

<120> COMPUESTOS DE OXOISOINDOLINA SUSTITUIDOS CON PIRIDINILO

<130> 13954-WO-PCT

<160> 8

<170> Versión PatentIn 3.5

<210> 1

<211> 526

<212> PRT

<213> Homo sapiens

<400> 1

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Met | Glu | Thr | Glu | Ala | Ile | Asp | Gly | Tyr | Ile | Thr | Cys | Asp | Asn | Glu | Leu |
| 1   |     |     |     | 5   |     |     |     |     | 10  |     |     |     |     | 15  |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Pro | Glu | Arg | Glu | His | Ser | Asn | Met | Ala | Ile | Asp | Leu | Thr | Ser | Ser |
|     |     |     | 20  |     |     |     |     | 25  |     |     |     |     | 30  |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Thr | Pro | Asn | Gly | Gln | His | Ala | Ser | Pro | Ser | His | Met | Thr | Ser | Thr | Asn |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Lys | Leu | Glu | Met | Gln | Ser | Asp | Glu | Glu | Cys | Asp | Arg | Lys | Pro |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | Ser | Arg | Glu | Asp | Glu | Ile | Arg | Gly | His | Asp | Glu | Gly | Ser | Ser | Leu |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Glu | Glu | Pro | Leu | Ile | Glu | Ser | Ser | Glu | Val | Ala | Asp | Asn | Arg | Lys | Val |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Gln | Glu | Leu | Gln | Gly | Glu | Gly | Gly | Ile | Arg | Leu | Pro | Asn | Gly | Lys | Leu |
|     |     | 100 |     |     |     |     |     | 105 |     |     |     |     | 110 |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Lys | Cys | Asp | Val | Cys | Gly | Met | Val | Cys | Ile | Gly | Pro | Asn | Val | Leu | Met |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Val | His | Lys | Arg | Ser | His | Thr | Gly | Glu | Arg | Pro | Phe | His | Cys | Asn | Gln |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Cys | Gly | Ala | Ser | Phe | Thr | Gln | Lys | Gly | Asn | Leu | Leu | Arg | His | Ile | Lys |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Leu | His | Ser | Gly | Glu | Lys | Pro | Phe | Lys | Cys | Pro | Phe | Cys | Ser | Tyr | Ala |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |

Cys Arg Arg Arg Asp Ala Leu Thr Gly His Leu Arg Thr His Ser Val  
180 185 190

Gly Lys Pro His Lys Cys Asn Tyr Cys Gly Arg Ser Tyr Lys Gln Arg  
195 200 205

Ser Ser Leu Glu Glu His Lys Glu Arg Cys His Asn Tyr Leu Gln Asn  
210 215 220

Val Ser Met Glu Ala Ala Gly Gln Val Met Ser His His Val Pro Pro  
225 230 235 240

Met Glu Asp Cys Lys Glu Gln Glu Pro Ile Met Asp Asn Asn Ile Ser  
245 250 255

Leu Val Pro Phe Glu Arg Pro Ala Val Ile Glu Lys Leu Thr Gly Asn  
260 265 270

Met Gly Lys Arg Lys Ser Ser Thr Pro Gln Lys Phe Val Gly Glu Lys  
275 280 285

Leu Met Arg Phe Ser Tyr Pro Asp Ile His Phe Asp Met Asn Leu Thr  
290 295 300

Tyr Glu Lys Glu Ala Glu Leu Met Gln Ser His Met Met Asp Gln Ala  
305 310 315 320

Ile Asn Asn Ala Ile Thr Tyr Leu Gly Ala Glu Ala Leu His Pro Leu  
325 330 335

Met Gln His Pro Pro Ser Thr Ile Ala Glu Val Ala Pro Val Ile Ser  
340 345 350

Ser Ala Tyr Ser Gln Val Tyr His Pro Asn Arg Ile Glu Arg Pro Ile  
355 360 365

Ser Arg Glu Thr Ala Asp Ser His Glu Asn Asn Met Asp Gly Pro Ile  
370 375 380

Ser Leu Ile Arg Pro Lys Ser Arg Pro Gln Glu Arg Glu Ala Ser Pro  
385 390 395 400

Ser Asn Ser Cys Leu Asp Ser Thr Asp Ser Glu Ser Ser His Asp Asp  
405 410 415

His Gln Ser Tyr Gln Gly His Pro Ala Leu Asn Pro Lys Arg Lys Gln  
420 425 430

Ser Pro Ala Tyr Met Lys Glu Asp Val Lys Ala Leu Asp Thr Thr Lys  
435 440 445

Ala Pro Lys Gly Ser Leu Lys Asp Ile Tyr Lys Val Phe Asn Gly Glu  
450 455 460

Gly Glu Gln Ile Arg Ala Phe Lys Cys Glu His Cys Arg Val Leu Phe  
465 470 475 480

Leu Asp His Val Met Tyr Thr Ile His Met Gly Cys His Gly Tyr Arg  
485 490 495

Asp Pro Leu Glu Cys Asn Ile Cys Gly Tyr Arg Ser Gln Asp Arg Tyr  
500 505 510

Glu Phe Ser Ser His Ile Val Arg Gly Glu His Thr Phe His  
515 520 525

<210> 2  
<211> 500  
<212> PRT  
<213> Homo sapiens

<400> 2

Met Glu Thr Glu Ala Ile Asp Gly Tyr Ile Thr Cys Asp Asn Glu Leu  
1 5 10 15

Ser Pro Glu Arg Glu His Ser Asn Met Ala Ile Asp Leu Thr Ser Ser  
20 25 30

Thr Pro Asn Gly Gln His Ala Ser Pro Ser His Met Thr Ser Thr Asn  
35 40 45

Ser Val Lys Leu Glu Met Gln Ser Asp Glu Glu Cys Asp Arg Lys Pro  
50 55 60

Leu Ser Arg Glu Asp Glu Ile Arg Gly His Asp Glu Gly Ser Ser Leu  
65 70 75 80

Glu Glu Pro Leu Ile Glu Ser Ser Glu Val Ala Asp Asn Arg Lys Val  
85 90 95

Gln Glu Leu Gln Gly Glu Gly Gly Ile Arg Leu Pro Asn Gly Glu Arg

|                                                                                    |     |     |
|------------------------------------------------------------------------------------|-----|-----|
| 100                                                                                | 105 | 110 |
| Pro Phe His Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn<br>115 120 125     |     |     |
| Leu Leu Arg His Ile Lys Leu His Ser Gly Glu Lys Pro Phe Lys Cys<br>130 135 140     |     |     |
| Pro Phe Cys Ser Tyr Ala Cys Arg Arg Arg Asp Ala Leu Thr Gly His<br>145 150 155 160 |     |     |
| Leu Arg Thr His Ser Val Gly Lys Pro His Lys Cys Asn Tyr Cys Gly<br>165 170 175     |     |     |
| Arg Ser Tyr Lys Gln Arg Ser Ser Leu Glu Glu His Lys Glu Arg Cys<br>180 185 190     |     |     |
| His Asn Tyr Leu Gln Asn Val Ser Met Glu Ala Ala Gly Gln Val Met<br>195 200 205     |     |     |
| Ser His His Val Pro Pro Met Glu Asp Cys Lys Glu Gln Glu Pro Ile<br>210 215 220     |     |     |
| Met Asp Asn Asn Ile Ser Leu Val Pro Phe Glu Arg Pro Ala Val Ile<br>225 230 235 240 |     |     |
| Glu Lys Leu Thr Gly Asn Met Gly Lys Arg Lys Ser Ser Thr Pro Gln<br>245 250 255     |     |     |
| Lys Phe Val Gly Glu Lys Leu Met Arg Phe Ser Tyr Pro Asp Ile His<br>260 265 270     |     |     |
| Phe Asp Met Asn Leu Thr Tyr Glu Lys Glu Ala Glu Leu Met Gln Ser<br>275 280 285     |     |     |
| His Met Met Asp Gln Ala Ile Asn Asn Ala Ile Thr Tyr Leu Gly Ala<br>290 295 300     |     |     |
| Glu Ala Leu His Pro Leu Met Gln His Pro Pro Ser Thr Ile Ala Glu<br>305 310 315 320 |     |     |
| Val Ala Pro Val Ile Ser Ser Ala Tyr Ser Gln Val Tyr His Pro Asn<br>325 330 335     |     |     |
| Arg Ile Glu Arg Pro Ile Ser Arg Glu Thr Ala Asp Ser His Glu Asn<br>340 345 350     |     |     |

Asn Met Asp Gly Pro Ile Ser Leu Ile Arg Pro Lys Ser Arg Pro Gln  
355 360 365

Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys Leu Asp Ser Thr Asp Ser  
370 375 380

Glu Ser Ser His Asp Asp His Gln Ser Tyr Gln Gly His Pro Ala Leu  
385 390 395 400

Asn Pro Lys Arg Lys Gln Ser Pro Ala Tyr Met Lys Glu Asp Val Lys  
405 410 415

Ala Leu Asp Thr Thr Lys Ala Pro Lys Gly Ser Leu Lys Asp Ile Tyr  
420 425 430

Lys Val Phe Asn Gly Glu Gly Glu Gln Ile Arg Ala Phe Lys Cys Glu  
435 440 445

His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr Ile His Met  
450 455 460

Gly Cys His Gly Tyr Arg Asp Pro Leu Glu Cys Asn Ile Cys Gly Tyr  
465 470 475 480

Arg Ser Gln Asp Arg Tyr Glu Phe Ser Ser His Ile Val Arg Gly Glu  
485 490 495

His Thr Phe His  
500

<210> 3  
<211> 452  
<212> PRT  
<213> Homo sapiens

<400> 3

Met Glu Thr Glu Ala Ile Asp Gly Tyr Ile Thr Cys Asp Asn Glu Leu  
1 5 10 15

Ser Pro Glu Arg Glu His Ser Asn Met Ala Ile Asp Leu Thr Ser Ser  
20 25 30

Thr Pro Asn Gly Gln His Ala Ser Pro Ser His Met Thr Ser Thr Asn  
35 40 45

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| Ser | Val | Lys | Leu | Glu | Met | Gln | Ser | Asp | Glu | Glu | Cys | Asp | Arg | Lys | Pro | 50  | 55  | 60  |
| Leu | Ser | Arg | Glu | Asp | Glu | Ile | Arg | Gly | His | Asp | Glu | Gly | Ser | Ser | Leu | 65  | 70  | 75  |
| Glu | Glu | Pro | Leu | Ile | Glu | Ser | Ser | Glu | Val | Ala | Asp | Asn | Arg | Lys | Val | 85  | 90  | 95  |
| Gln | Glu | Leu | Gln | Gly | Glu | Gly | Gly | Ile | Arg | Leu | Pro | Asn | Gly | Glu | Arg | 100 | 105 | 110 |
| Pro | Phe | His | Cys | Asn | Gln | Cys | Gly | Ala | Ser | Phe | Thr | Gln | Lys | Gly | Asn | 115 | 120 | 125 |
| Leu | Leu | Arg | His | Ile | Lys | Leu | His | Ser | Gly | Glu | Lys | Pro | Phe | Lys | Cys | 130 | 135 | 140 |
| Pro | Phe | Cys | Ser | Tyr | Ala | Cys | Arg | Arg | Arg | Asp | Ala | Leu | Thr | Gly | His | 145 | 150 | 155 |
| Leu | Arg | Thr | His | Ser | Val | Gly | Lys | Pro | His | Lys | Cys | Asn | Tyr | Cys | Gly | 165 | 170 | 175 |
| Arg | Ser | Tyr | Lys | Gln | Arg | Ser | Ser | Leu | Glu | Glu | His | Lys | Glu | Arg | Cys | 180 | 185 | 190 |
| His | Asn | Tyr | Leu | Gln | Asn | Val | Ser | Met | Glu | Ala | Ala | Gly | Gln | Val | Met | 195 | 200 | 205 |
| Ser | His | His | Gly | Glu | Lys | Leu | Met | Arg | Phe | Ser | Tyr | Pro | Asp | Ile | His | 210 | 215 | 220 |
| Phe | Asp | Met | Asn | Leu | Thr | Tyr | Glu | Lys | Glu | Ala | Glu | Leu | Met | Gln | Ser | 225 | 230 | 235 |
| His | Met | Met | Asp | Gln | Ala | Ile | Asn | Asn | Ala | Ile | Thr | Tyr | Leu | Gly | Ala | 245 | 250 | 255 |
| Glu | Ala | Leu | His | Pro | Leu | Met | Gln | His | Pro | Pro | Ser | Thr | Ile | Ala | Glu | 260 | 265 | 270 |
| Val | Ala | Pro | Val | Ile | Ser | Ser | Ala | Tyr | Ser | Gln | Val | Tyr | His | Pro | Asn | 275 | 280 | 285 |
| Arg | Ile | Glu | Arg | Pro | Ile | Ser | Arg | Glu | Thr | Ala | Asp | Ser | His | Glu | Asn |     |     |     |

|                                                                 |              |     |  |         |
|-----------------------------------------------------------------|--------------|-----|--|---------|
| 290                                                             |              | 295 |  | 300     |
| Asn Met Asp Gly Pro Ile Ser Leu Ile Arg Pro Lys Ser Arg Pro Gln |              |     |  |         |
| 305                                                             |              | 310 |  | 315 320 |
| Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys Leu Asp Ser Thr Asp Ser |              |     |  |         |
|                                                                 |              | 325 |  | 330 335 |
| Glu Ser Ser His Asp Asp His Gln Ser Tyr Gln Gly His Pro Ala Leu |              |     |  |         |
|                                                                 |              | 340 |  | 345 350 |
| Asn Pro Lys Arg Lys Gln Ser Pro Ala Tyr Met Lys Glu Asp Val Lys |              |     |  |         |
|                                                                 |              | 355 |  | 360 365 |
| Ala Leu Asp Thr Thr Lys Ala Pro Lys Gly Ser Leu Lys Asp Ile Tyr |              |     |  |         |
|                                                                 |              | 370 |  | 375 380 |
| Lys Val Phe Asn Gly Glu Gly Glu Gln Ile Arg Ala Phe Lys Cys Glu |              |     |  |         |
| 385                                                             |              | 390 |  | 395 400 |
| His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr Ile His Met |              |     |  |         |
|                                                                 |              | 405 |  | 410 415 |
| Gly Cys His Gly Tyr Arg Asp Pro Leu Glu Cys Asn Ile Cys Gly Tyr |              |     |  |         |
|                                                                 |              | 420 |  | 425 430 |
| Arg Ser Gln Asp Arg Tyr Glu Phe Ser Ser His Ile Val Arg Gly Glu |              |     |  |         |
|                                                                 |              | 435 |  | 440 445 |
| His Thr Phe His                                                 |              |     |  |         |
| 450                                                             |              |     |  |         |
| <210>                                                           | 4            |     |  |         |
| <211>                                                           | 239          |     |  |         |
| <212>                                                           | PRT          |     |  |         |
| <213>                                                           | Homo sapiens |     |  |         |
| <400>                                                           | 4            |     |  |         |
| Met Glu Thr Glu Ala Ile Asp Gly Tyr Ile Thr Cys Asp Asn Glu Leu |              |     |  |         |
| 1                                                               |              | 5   |  | 10 15   |
| Ser Pro Glu Arg Glu His Ser Asn Met Ala Ile Asp Leu Thr Ser Ser |              |     |  |         |
|                                                                 |              | 20  |  | 25 30   |
| Thr Pro Asn Gly Gln His Ala Ser Pro Ser His Met Thr Ser Thr Asn |              |     |  |         |
|                                                                 |              | 35  |  | 40 45   |

Ser Val Lys Leu Glu Met Gln Ser Asp Glu Glu Cys Asp Arg Lys Pro  
50 55 60

Leu Ser Arg Glu Asp Glu Ile Arg Gly His Asp Glu Gly Ser Ser Leu  
65 70 75 80

Glu Glu Pro Leu Ile Glu Ser Ser Glu Val Ala Asp Asn Arg Lys Val  
85 90 95

Gln Glu Leu Gln Gly Glu Gly Gly Ile Arg Leu Pro Asn Gly Lys Leu  
100 105 110

Lys Cys Asp Val Cys Gly Met Val Cys Ile Gly Pro Asn Val Leu Met  
115 120 125

Val His Lys Arg Ser His Thr Gly Glu Arg Pro Phe His Cys Asn Gln  
130 135 140

Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu Leu Arg His Ile Lys  
145 150 155 160

Leu His Ser Gly Glu Lys Pro Phe Lys Cys Pro Phe Cys Ser Tyr Ala  
165 170 175

Cys Arg Arg Arg Asp Ala Leu Thr Gly His Leu Arg Thr His Ser Val  
180 185 190

Gly Lys Pro His Lys Cys Asn Tyr Cys Gly Arg Ser Tyr Lys Gln Arg  
195 200 205

Ser Ser Leu Glu Glu His Lys Glu Arg Cys His Asn Tyr Leu Gln Asn  
210 215 220

Val Ser Met Glu Ala Ala Gly Gln Val Met Ser His His Asp Ser  
225 230 235

<210> 5  
<211> 454  
<212> PRT  
<213> Homo sapiens

<400> 5

Met Glu Thr Glu Ala Ile Asp Gly Tyr Ile Thr Cys Asp Asn Glu Leu  
1 5 10 15

Ser Pro Glu Arg Glu His Ser Asn Met Ala Ile Asp Leu Thr Ser Ser

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |  |  |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--|--|
|     | 20  |     | 25  |     | 30  |     |     |     |     |     |     |     |     |     |     |  |  |
| Thr | Pro | Asn | Gly | Gln | His | Ala | Ser | Pro | Ser | His | Met | Thr | Ser | Thr | Asn |  |  |
|     |     | 35  |     |     |     |     | 40  |     |     |     |     | 45  |     |     |     |  |  |
| Ser | Val | Lys | Leu | Glu | Met | Gln | Ser | Asp | Glu | Glu | Cys | Asp | Arg | Lys | Pro |  |  |
|     | 50  |     |     |     |     | 55  |     |     |     |     | 60  |     |     |     |     |  |  |
| Leu | Ser | Arg | Glu | Asp | Glu | Ile | Arg | Gly | His | Asp | Glu | Gly | Ser | Ser | Leu |  |  |
| 65  |     |     |     |     | 70  |     |     |     |     | 75  |     |     |     |     | 80  |  |  |
| Glu | Glu | Pro | Leu | Ile | Glu | Ser | Ser | Glu | Val | Ala | Asp | Asn | Arg | Lys | Val |  |  |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |  |  |
| Gln | Glu | Leu | Gln | Gly | Glu | Gly | Gly | Ile | Arg | Leu | Pro | Asn | Gly | Glu | Arg |  |  |
|     |     | 100 |     |     |     |     |     | 105 |     |     |     |     | 110 |     |     |  |  |
| Pro | Phe | His | Cys | Asn | Gln | Cys | Gly | Ala | Ser | Phe | Thr | Gln | Lys | Gly | Asn |  |  |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |  |  |
| Leu | Leu | Arg | His | Ile | Lys | Leu | His | Ser | Gly | Glu | Lys | Pro | Phe | Lys | Cys |  |  |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |  |  |
| Pro | Phe | Cys | Ser | Tyr | Ala | Cys | Arg | Arg | Arg | Asp | Ala | Leu | Thr | Gly | His |  |  |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |  |  |
| Leu | Arg | Thr | His | Ser | Val | Pro | Pro | Met | Glu | Asp | Cys | Lys | Glu | Gln | Glu |  |  |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |  |  |
| Pro | Ile | Met | Asp | Asn | Asn | Ile | Ser | Leu | Val | Pro | Phe | Glu | Arg | Pro | Ala |  |  |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |  |  |
| Val | Ile | Glu | Lys | Leu | Thr | Gly | Asn | Met | Gly | Lys | Arg | Lys | Ser | Ser | Thr |  |  |
|     | 195 |     |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |  |  |
| Pro | Gln | Lys | Phe | Val | Gly | Glu | Lys | Leu | Met | Arg | Phe | Ser | Tyr | Pro | Asp |  |  |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |  |  |
| Ile | His | Phe | Asp | Met | Asn | Leu | Thr | Tyr | Glu | Lys | Glu | Ala | Glu | Leu | Met |  |  |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |  |  |
| Gln | Ser | His | Met | Met | Asp | Gln | Ala | Ile | Asn | Asn | Ala | Ile | Thr | Tyr | Leu |  |  |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |  |  |
| Gly | Ala | Glu | Ala | Leu | His | Pro | Leu | Met | Gln | His | Pro | Pro | Ser | Thr | Ile |  |  |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |  |  |

Ala Glu Val Ala Pro Val Ile Ser Ser Ala Tyr Ser Gln Val Tyr His  
275 280 285

Pro Asn Arg Ile Glu Arg Pro Ile Ser Arg Glu Thr Ala Asp Ser His  
290 295 300

Glu Asn Asn Met Asp Gly Pro Ile Ser Leu Ile Arg Pro Lys Ser Arg  
305 310 315 320

Pro Gln Glu Arg Glu Ala Ser Pro Ser Asn Ser Cys Leu Asp Ser Thr  
325 330 335

Asp Ser Glu Ser Ser His Asp Asp His Gln Ser Tyr Gln Gly His Pro  
340 345 350

Ala Leu Asn Pro Lys Arg Lys Gln Ser Pro Ala Tyr Met Lys Glu Asp  
355 360 365

Val Lys Ala Leu Asp Thr Thr Lys Ala Pro Lys Gly Ser Leu Lys Asp  
370 375 380

Ile Tyr Lys Val Phe Asn Gly Glu Gly Glu Gln Ile Arg Ala Phe Lys  
385 390 395 400

Cys Glu His Cys Arg Val Leu Phe Leu Asp His Val Met Tyr Thr Ile  
405 410 415

His Met Gly Cys His Gly Tyr Arg Asp Pro Leu Glu Cys Asn Ile Cys  
420 425 430

Gly Tyr Arg Ser Gln Asp Arg Tyr Glu Phe Ser Ser His Ile Val Arg  
435 440 445

Gly Glu His Thr Phe His  
450

<210> 6  
<211> 23  
<212> PRT  
<213> Homo sapiens

<400> 6

Phe His Cys Asn Gln Cys Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu  
1 5 10 15

Leu Arg His Ile Lys Leu His  
20

<210> 7  
<211> 585  
<212> PRT  
<213> Homo sapiens

<400> 7

Met His Thr Pro Pro Ala Leu Pro Arg Arg Phe Gln Gly Gly Gly Arg  
1 5 10 15

Val Arg Thr Pro Gly Ser His Arg Gln Gly Lys Asp Asn Leu Glu Arg  
20 25 30

Asp Pro Ser Gly Gly Cys Val Pro Asp Phe Leu Pro Gln Ala Gln Asp  
35 40 45

Ser Asn His Phe Ile Met Glu Ser Leu Phe Cys Glu Ser Ser Gly Asp  
50 55 60

Ser Ser Leu Glu Lys Glu Phe Leu Gly Ala Pro Val Gly Pro Ser Val  
65 70 75 80

Ser Thr Pro Asn Ser Gln His Ser Ser Pro Ser Arg Ser Leu Ser Ala  
85 90 95

Asn Ser Ile Lys Val Glu Met Tyr Ser Asp Glu Glu Ser Ser Arg Leu  
100 105 110

Leu Gly Pro Asp Glu Arg Leu Leu Glu Lys Asp Asp Ser Val Ile Val  
115 120 125

Glu Asp Ser Leu Ser Glu Pro Leu Gly Tyr Cys Asp Gly Ser Gly Pro  
130 135 140

Glu Pro His Ser Pro Gly Gly Ile Arg Leu Pro Asn Gly Lys Leu Lys  
145 150 155 160

Cys Asp Val Cys Gly Met Val Cys Ile Gly Pro Asn Val Leu Met Val  
165 170 175

His Lys Arg Ser His Thr Gly Glu Arg Pro Phe His Cys Asn Gln Cys  
180 185 190

Gly Ala Ser Phe Thr Gln Lys Gly Asn Leu Leu Arg His Ile Lys Leu  
195 200 205

His Ser Gly Glu Lys Pro Phe Lys Cys Pro Phe Cys Asn Tyr Ala Cys  
210 215 220

Arg Arg Arg Asp Ala Leu Thr Gly His Leu Arg Thr His Ser Val Ser  
225 230 235 240

Ser Pro Thr Val Gly Lys Pro Tyr Lys Cys Asn Tyr Cys Gly Arg Ser  
245 250 255

Tyr Lys Gln Gln Ser Thr Leu Glu Glu His Lys Glu Arg Cys His Asn  
260 265 270

Tyr Leu Gln Ser Leu Ser Thr Glu Ala Gln Ala Leu Ala Gly Gln Pro  
275 280 285

Gly Asp Glu Ile Arg Asp Leu Glu Met Val Pro Asp Ser Met Leu His  
290 295 300

Ser Ser Ser Glu Arg Pro Thr Phe Ile Asp Arg Leu Ala Asn Ser Leu  
305 310 315 320

Thr Lys Arg Lys Arg Ser Thr Pro Gln Lys Phe Val Gly Glu Lys Gln  
325 330 335

Met Arg Phe Ser Leu Ser Asp Leu Pro Tyr Asp Val Asn Ser Gly Gly  
340 345 350

Tyr Glu Lys Asp Val Glu Leu Val Ala His His Ser Leu Glu Pro Gly  
355 360 365

Phe Gly Ser Ser Leu Ala Phe Val Gly Ala Glu His Leu Arg Pro Leu  
370 375 380

Arg Leu Pro Pro Thr Asn Cys Ile Ser Glu Leu Thr Pro Val Ile Ser  
385 390 395 400

Ser Val Tyr Thr Gln Met Gln Pro Leu Pro Gly Arg Leu Glu Leu Pro  
405 410 415

Gly Ser Arg Glu Ala Gly Glu Gly Pro Glu Asp Leu Ala Asp Gly Gly  
420 425 430

Pro Leu Leu Tyr Arg Pro Arg Gly Pro Leu Thr Asp Pro Gly Ala Ser  
435 440 445

Pro Ser Asn Gly Cys Gln Asp Ser Thr Asp Thr Glu Ser Asn His Glu  
450 455 460

Asp Arg Val Ala Gly Val Val Ser Leu Pro Gln Gly Pro Pro Pro Gln  
465 470 475 480

Pro Pro Pro Thr Ile Val Val Gly Arg His Ser Pro Ala Tyr Ala Lys  
485 490 495

Glu Asp Pro Lys Pro Gln Glu Gly Leu Leu Arg Gly Thr Pro Gly Pro  
500 505 510

Ser Lys Glu Val Leu Arg Val Val Gly Glu Ser Gly Glu Pro Val Lys  
515 520 525

Ala Phe Lys Cys Glu His Cys Arg Ile Leu Phe Leu Asp His Val Met  
530 535 540

Phe Thr Ile His Met Gly Cys His Gly Phe Arg Asp Pro Phe Glu Cys  
545 550 555 560

Asn Ile Cys Gly Tyr His Ser Gln Asp Arg Tyr Glu Phe Ser Ser His  
565 570 575

Ile Val Arg Gly Glu His Lys Val Gly  
580 585

<210> 8  
<211> 544  
<212> PRT  
<213> Homo sapiens

<400> 8

Met Asp Ser Arg Tyr Leu Gln Leu Gln Leu Tyr Leu Pro Ser Cys Ser  
1 5 10 15

Leu Leu Gln Gly Ser Gly Asp Ser Ser Leu Glu Lys Glu Phe Leu Gly  
20 25 30

Ala Pro Val Gly Pro Ser Val Ser Thr Pro Asn Ser Gln His Ser Ser  
35 40 45

Pro Ser Arg Ser Leu Ser Ala Asn Ser Ile Lys Val Glu Met Tyr Ser  
50 55 60

Asp Glu Glu Ser Ser Arg Leu Leu Gly Pro Asp Glu Arg Leu Leu Glu

|     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 65  |     |     |     |     | 70  |     |     |     |     |     | 75  |     |     |     | 80  |
| Lys | Asp | Asp | Ser | Val | Ile | Val | Glu | Asp | Ser | Leu | Ser | Glu | Pro | Leu | Gly |
|     |     |     |     | 85  |     |     |     |     | 90  |     |     |     |     | 95  |     |
| Tyr | Cys | Asp | Gly | Ser | Gly | Pro | Glu | Pro | His | Ser | Pro | Gly | Gly | Ile | Arg |
|     |     |     | 100 |     |     |     |     | 105 |     |     |     |     | 110 |     |     |
| Leu | Pro | Asn | Gly | Lys | Leu | Lys | Cys | Asp | Val | Cys | Gly | Met | Val | Cys | Ile |
|     |     | 115 |     |     |     |     | 120 |     |     |     |     | 125 |     |     |     |
| Gly | Pro | Asn | Val | Leu | Met | Val | His | Lys | Arg | Ser | His | Thr | Gly | Glu | Arg |
|     | 130 |     |     |     |     | 135 |     |     |     |     | 140 |     |     |     |     |
| Pro | Phe | His | Cys | Asn | Gln | Cys | Gly | Ala | Ser | Phe | Thr | Gln | Lys | Gly | Asn |
| 145 |     |     |     |     | 150 |     |     |     |     | 155 |     |     |     |     | 160 |
| Leu | Leu | Arg | His | Ile | Lys | Leu | His | Ser | Gly | Glu | Lys | Pro | Phe | Lys | Cys |
|     |     |     |     | 165 |     |     |     |     | 170 |     |     |     |     | 175 |     |
| Pro | Phe | Cys | Asn | Tyr | Ala | Cys | Arg | Arg | Arg | Asp | Ala | Leu | Thr | Gly | His |
|     |     |     | 180 |     |     |     |     | 185 |     |     |     |     | 190 |     |     |
| Leu | Arg | Thr | His | Ser | Val | Ser | Ser | Pro | Thr | Val | Gly | Lys | Pro | Tyr | Lys |
|     |     | 195 |     |     |     |     | 200 |     |     |     |     | 205 |     |     |     |
| Cys | Asn | Tyr | Cys | Gly | Arg | Ser | Tyr | Lys | Gln | Gln | Ser | Thr | Leu | Glu | Glu |
|     | 210 |     |     |     |     | 215 |     |     |     |     | 220 |     |     |     |     |
| His | Lys | Glu | Arg | Cys | His | Asn | Tyr | Leu | Gln | Ser | Leu | Ser | Thr | Glu | Ala |
| 225 |     |     |     |     | 230 |     |     |     |     | 235 |     |     |     |     | 240 |
| Gln | Ala | Leu | Ala | Gly | Gln | Pro | Gly | Asp | Glu | Ile | Arg | Asp | Leu | Glu | Met |
|     |     |     |     | 245 |     |     |     |     | 250 |     |     |     |     | 255 |     |
| Val | Pro | Asp | Ser | Met | Leu | His | Ser | Ser | Ser | Glu | Arg | Pro | Thr | Phe | Ile |
|     |     |     | 260 |     |     |     |     | 265 |     |     |     |     | 270 |     |     |
| Asp | Arg | Leu | Ala | Asn | Ser | Leu | Thr | Lys | Arg | Lys | Arg | Ser | Thr | Pro | Gln |
|     |     | 275 |     |     |     |     | 280 |     |     |     |     | 285 |     |     |     |
| Lys | Phe | Val | Gly | Glu | Lys | Gln | Met | Arg | Phe | Ser | Leu | Ser | Asp | Leu | Pro |
|     | 290 |     |     |     |     | 295 |     |     |     |     | 300 |     |     |     |     |
| Tyr | Asp | Val | Asn | Ser | Gly | Gly | Tyr | Glu | Lys | Asp | Val | Glu | Leu | Val | Ala |
| 305 |     |     |     |     | 310 |     |     |     |     | 315 |     |     |     |     | 320 |

His His Ser Leu Glu Pro Gly Phe Gly Ser Ser Leu Ala Phe Val Gly  
325 330 335

Ala Glu His Leu Arg Pro Leu Arg Leu Pro Pro Thr Asn Cys Ile Ser  
340 345 350

Glu Leu Thr Pro Val Ile Ser Ser Val Tyr Thr Gln Met Gln Pro Leu  
355 360 365

Pro Gly Arg Leu Glu Leu Pro Gly Ser Arg Glu Ala Gly Glu Gly Pro  
370 375 380

Glu Asp Leu Ala Asp Gly Gly Pro Leu Leu Tyr Arg Pro Arg Gly Pro  
385 390 395 400

Leu Thr Asp Pro Gly Ala Ser Pro Ser Asn Gly Cys Gln Asp Ser Thr  
405 410 415

Asp Thr Glu Ser Asn His Glu Asp Arg Val Ala Gly Val Val Ser Leu  
420 425 430

Pro Gln Gly Pro Pro Pro Gln Pro Pro Pro Thr Ile Val Val Gly Arg  
435 440 445

His Ser Pro Ala Tyr Ala Lys Glu Asp Pro Lys Pro Gln Glu Gly Leu  
450 455 460

Leu Arg Gly Thr Pro Gly Pro Ser Lys Glu Val Leu Arg Val Val Gly  
465 470 475 480

Glu Ser Gly Glu Pro Val Lys Ala Phe Lys Cys Glu His Cys Arg Ile  
485 490 495

Leu Phe Leu Asp His Val Met Phe Thr Ile His Met Gly Cys His Gly  
500 505 510

Phe Arg Asp Pro Phe Glu Cys Asn Ile Cys Gly Tyr His Ser Gln Asp  
515 520 525

Arg Tyr Glu Phe Ser Ser His Ile Val Arg Gly Glu His Lys Val Gly  
530 535 540