

P-201-14965 LISTADO DE SECUENCIAS.txt  
LISTA DE SECUENCIAS

<110> Stewart, Ross A  
Tigue, Natalie J  
Young, Lesley L  
Higazi, Daniel R  
Bamber, Lisa  
Sridharan, Sudharsan  
Leyland, Rebecca

<120> PROTEÍNAS DE FUSIÓN DE GITRL Y USOS DE LAS MISMAS

<130> GITRLF-100W01

<160> 47

<170> PatentIn versión 3.5

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Val Met Leu Leu Phe Leu Cys Ser Phe Ser Trp Leu Ile Phe Ile Phe  
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Leu Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly Pro  
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Leu Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val Asn  
65 70 75 80

Lys Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu  
85 90 95

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

Phe Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu Thr  
115 120 125

Asn Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val  
130 135 140

Gly Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys  
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Leu Gln Leu Xaa Thr Ala Lys Glu Pro Cys Met Ala Lys Xaa Gly Pro
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Leu Xaa Xaa Lys Trp Gln Xaa Ala Ser Ser Glu Pro Xaa Cys Xaa Asn
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Lys Val Xaa Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu
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130 135 140

Gly Asp Thr Ile Asp Leu Ile Phe Xaa Ser Glu His Gln Xaa Leu Lys  
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35 40 45

Leu Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly Pro  
50 55 60

Leu Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val Asn  
65 70 75 80

Lys Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu  
85 90 95

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

Phe Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu Thr  
115 120 125

Asn Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val  
130 135 140

Gly Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys  
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Val Met Leu Leu Phe Leu Cys Ser Phe Ser Trp Leu Ile Phe Ile Phe  
35 40 45

Leu Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly Pro  
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Leu Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val Asn  
65 70 75 80

Lys Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu  
85 90 95

Ile Tyr Gly Gln Val Ala Pro Asn Ala Asn Tyr Asn Asp Val Ala Pro  
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Phe Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu Thr  
115 120 125

Asn Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val  
130 135 140

Gly Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys  
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| Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser | 35  | 40  | 45  |
| His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu | 50  | 55  | 60  |
| Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr | 65  | 70  | 75  |
| Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn | 85  | 90  | 95  |
| Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro | 100 | 105 | 110 |
| Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln | 115 | 120 | 125 |
| Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val | 130 | 135 | 140 |
| Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val | 145 | 150 | 155 |
| Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro | 165 | 170 | 175 |
| Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr | 180 | 185 | 190 |
| Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val | 195 | 200 | 205 |
| Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu | 210 | 215 | 220 |
| Ser Pro Gly Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly | 225 | 230 | 235 |
| Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Val Ser Arg | 245 | 250 | 255 |
| Leu Glu Glu Glu Met Arg Lys Leu Gln Ala Thr Val Gln Glu Leu Gln | 260 | 265 | 270 |
| Lys Arg Leu Asp Arg Leu Glu Glu Thr Val Gln Ala Lys Gly Gly Gly | 275 | 280 | 285 |
| Gly Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly Pro | 290 | 295 | 300 |
| Leu Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val Asn | 305 | 310 | 315 |
| Lys Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu | 325 | 330 | 335 |
| Ile Tyr Gly Gln Val Ala Pro Asn Ala Asn Tyr Asn Asp Val Ala Pro | 340 | 345 | 350 |
| Phe Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu Thr | 355 | 360 | 365 |
| Asn Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val | 370 | 375 | 380 |
| Gly Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys | 385 | 390 | 395 |
| Asp Asn Thr Tyr Trp Gly Ile Ile Leu Leu Ala Asn Pro Gln Phe Ile | 405 | 410 | 415 |

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Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val  
 65 70 75 80

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr  
 85 90 95

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly  
 100 105 110

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile  
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Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val  
 130 135 140

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Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser  
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 180 185 190  
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val  
 195 200 205  
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met  
 210 215 220  
 His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser  
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 Pro Gly Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly  
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 385 390 395 400  
 Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys Asp  
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 35 40 45  
 Leu Ile Cys Glu Ala Ser Gly Gly Gly Ala Phe Leu Val Leu Pro Leu  
 50 55 60  
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 Thr Ala Pro Val Leu Asp Ile Ala Trp Cys Pro His Asn Asp Asn Val  
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Gly His Thr Lys Arg Val Gly Ile Val Ala Trp His Thr Thr Ala Gln
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Val Gly Thr Gly Ala Ala Met Leu Thr Leu Gly Pro Glu Val His Pro
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Asp Thr Ile Tyr Ser Val Asp Trp Ser Arg Asp Gly Gly Leu Ile Cys
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Thr Ser Cys Arg Asp Lys Arg Val Arg Ile Ile Glu Pro Arg Lys Gly
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Thr Val Val Ala Glu Lys Asp Arg Pro His Glu Gly Thr Arg Pro Val
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Arg Ala Val Phe Val Ser Glu Gly Lys Ile Leu Thr Thr Gly Phe Ser
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Arg Met Ser Glu Arg Gln Val Ala Leu Trp Asp Thr Lys His Leu Glu
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      260                      265                270

Pro Phe Phe Asp Pro Asp Thr Asn Ile Val Tyr Leu Cys Gly Lys Gly
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Asp Ser Ser Ile Arg Tyr Phe Glu Ile Thr Ser Glu Ala Pro Phe Leu
      290                      295                300

His Tyr Leu Ser Met Phe Ser Ser Lys Glu Ser Gln Arg Gly Met Gly
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Tyr Met Pro Lys Arg Gly Leu Glu Val Asn Lys Cys Glu Ile Ala Arg
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Phe Tyr Lys Leu His Glu Arg Arg Cys Glu Pro Ile Ala Met Thr Val
      340                      345                350

Pro Arg Lys Ser Asp Leu Phe Gln Glu Asp Leu Tyr Pro Pro Thr Ala
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Gly Pro Asp Pro Ala Leu Thr Ala Glu Glu Trp Leu Gly Gly Arg Asp
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Ala Gly Pro Leu Leu Ile Ser Leu Lys Asp Gly Tyr Val Pro Pro Lys
      385                      390                395                400

Ser Arg Glu Leu Arg Val Asn Arg Gly Leu Asp Thr Gly Arg Arg Arg
      405                      410                415

Ala Ala Pro Glu Ala Ser Gly Thr Pro Ser Ser Asp Ala Val Ser Arg
      420                      425                430

Leu Glu Glu Glu Met Arg Lys Leu Gln Ala Thr Val Gln Glu Leu Gln
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<400> 18

Ile Ser Arg Ile Glu Glu Glu Ile Arg Lys Ile Asn Ala Thr Ile Gln  
 1                  5                  10                  15

Glu Leu Gln Lys Arg Ile Asp Arg Leu Glu Glu Thr Val Gln Ala Lys  
                   20                  25                  30

<210> 19  
 <211> 5  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 19

Gly Gly Gly Gly Ser  
 1                  5

<210> 20  
 <211> 25  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 20

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly  
 1                  5                  10                  15

Gly Gly Gly Ser Gly Gly Gly Gly Ser  
20 25

<210> 21  
<211> 228  
<212> PRT  
<213> Artificial

<220>  
<223> Sintético

<400> 21

Leu Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu  
1 5 10 15

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu  
20 25 30

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser  
35 40 45

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu  
50 55 60

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr  
65 70 75 80

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn  
85 90 95

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro  
100 105 110

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln  
115 120 125

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val  
130 135 140

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val  
145 150 155 160

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro  
165 170 175

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr  
180 185 190

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val  
195 200 205

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu  
210 215 220

Ser Pro Gly Lys  
225

<210> 22  
<211> 6  
<212> PRT  
<213> Artificial

<220>  
<223> Sintético

<400> 22

Ser Gly Gly Gly Gly Ser  
1 5

<210> 23  
<211> 17  
<212> PRT  
<213> Artificial

<220>  
<223> Sintético

<400> 23

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala  
1 5 10 15

Leu

<210> 24  
 <211> 16  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 24

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala  
 1 5 10 15

<210> 25  
 <211> 15  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 25

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser  
 1 5 10 15

<210> 26  
 <211> 14  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 26

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly  
 1 5 10

<210> 27  
 <211> 28  
 <212> PRT  
 <213> Saccharomyces cerevisiae

<400> 27

Ile Lys Gln Ile Glu Asp Lys Ile Glu Glu Ile Leu Ser Lys Ile Tyr  
 1 5 10 15

His Ile Glu Asn Glu Ile Ala Arg Ile Lys Lys Leu  
 20 25

<210> 28  
 <211> 39  
 <212> PRT  
 <213> Homo sapiens

<400> 28

Cys Ala Cys Glu Ser Leu Val Lys Phe Gln Ala Lys Val Glu Gly Leu  
 1 5 10 15

Leu Gln Ala Leu Thr Arg Lys Leu Glu Ala Val Ser Lys Arg Leu Ala  
 20 25 30

Ile Leu Glu Asn Thr Val Val  
 35

<210> 29  
 <211> 39  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 29

Cys Ala Cys Glu Ser Leu Val Lys Phe Gln Ala Lys Val Glu Gly Leu  
 1 5 10 15

Ile Gln Ala Leu Thr Arg Lys Leu Glu Ala Val Ser Lys Arg Ile Ala  
 20 25 30

Ile Leu Glu Asn Thr Val Val  
 35

<210> 30  
 <211> 70  
 <212> PRT  
 <213> Homo sapiens

<400> 30

Glu Ala Glu Ala Glu Val Thr Leu Arg Glu Leu Gln Glu Ala Leu Glu  
 1 5 10 15

Glu Glu Val Leu Thr Arg Gln Ser Leu Ser Arg Glu Met Glu Ala Ile  
 20 25 30

Arg Thr Asp Asn Gln Asn Phe Ala Ser Gln Leu Arg Glu Ala Glu Ala  
 35 40 45

Arg Asn Arg Asp Leu Glu Ala His Val Arg Gln Leu Gln Glu Arg Met  
 50 55 60

Glu Leu Leu Gln Ala Glu  
 65 70

<210> 31  
 <211> 70  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 31

Ile Ala Glu Ile Glu Val Thr Ile Arg Glu Leu Gln Glu Ala Ile Glu  
 1 5 10 15

Glu Glu Val Leu Thr Arg Gln Ser Leu Ser Arg Glu Ile Glu Ala Ile  
 20 25 30

Arg Thr Asp Ile Gln Asn Ile Ala Ser Gln Leu Arg Glu Ile Glu Ala  
 35 40 45

Arg Ile Arg Asp Leu Glu Ala His Val Arg Gln Leu Gln Glu Arg Met  
 50 55 60

Glu Leu Leu Gln Ala Glu  
 65 70

<210> 32  
 <211> 33  
 <212> PRT  
 <213> Homo sapiens

<400> 32

Ala Ser Ala Leu Asn Thr Lys Ile Arg Ala Leu Gln Gly Ser Leu Glu  
 1 5 10 15

Asn Met Ser Lys Leu Leu Lys Arg Gln Asn Asp Ile Leu Gln Val Val  
 20 25 30

Ser

<210> 33  
 <211> 33  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 33

Ile Ser Ala Leu Asn Thr Lys Ile Arg Ala Ile Gln Gly Ser Ile Glu  
 1 5 10 15

Asn Met Ser Lys Leu Ile Lys Arg Gln Asn Asp Ile Ile Gln Val Val  
 20 25 30

Ser

<210> 34  
 <211> 128  
 <212> PRT  
 <213> Homo sapiens

&lt;400&gt; 34

Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly Pro Leu  
 1 5 10 15

Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val Asn Lys  
 20 25 30

Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu Ile  
 35 40 45

Tyr Gly Gln Val Ala Pro Asn Ala Asn Tyr Asn Asp Val Ala Pro Phe  
 50 55 60

Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu Thr Asn  
 65 70 75 80

Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val Gly  
 85 90 95

Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys Asn  
 100 105 110

Asn Thr Tyr Trp Gly Ile Ile Leu Leu Ala Asn Pro Gln Phe Ile Ser  
 115 120 125

&lt;210&gt; 35

&lt;211&gt; 128

&lt;212&gt; PRT

&lt;213&gt; Artificial

&lt;220&gt;

&lt;223&gt; Sintético

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (3)..(3)

&lt;223&gt; Xaa es Glu o Ala

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (13)..(13)

&lt;223&gt; Xaa es Ser o Phe

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (17)..(17)

&lt;223&gt; Xaa es Thr o Pro

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (18)..(18)

&lt;223&gt; Xaa es Leu o Ser

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (22)..(22)

&lt;223&gt; Xaa es Thr o Met

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (28)..(28)

&lt;223&gt; Xaa es Leu o Pro

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (30)..(30)

&lt;223&gt; Xaa es Met o Val

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (34)..(34)

&lt;223&gt; Xaa es Thr, Phe o Ser

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (50)..(50)

&lt;223&gt; Xaa es Ser o Gly

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (63)..(63)

&lt;223&gt; Xaa es Arg o Pro

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (67)..(67)

&lt;223&gt; Xaa es Trp o Arg

&lt;220&gt;

&lt;221&gt; CARACTERÍSTICA\_MISC

&lt;222&gt; (74)..(74)

&lt;223&gt; Xaa es Leu o Met

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<220>
<221> CARACTERÍSTICA_MISC
<222> (104)..(104)
<223> Xaa es Ser o Asn

<220>
<221> CARACTERÍSTICA_MISC
<222> (109)..(109)
<223> Xaa es Phe o Val

<220>
<221> CARACTERÍSTICA_MISC
<222> (112)..(112)
<223> XAA es XAA es cualquier aminoácido distinto de Asn

<220>
<221> CARACTERÍSTICA_MISC
<222> (118)..(118)
<223> Xaa es Val o Ile

<220>
<221> CARACTERÍSTICA_MISC
<222> (119)..(119)
<223> Xaa es Leu o Ile

<400> 35
Gln Leu Xaa Thr Ala Lys Glu Pro Cys Met Ala Lys Xaa Gly Pro Leu
1          5          10          15

Xaa Xaa Lys Trp Gln Xaa Ala Ser Ser Glu Pro Xaa Cys Xaa Asn Lys
20          25          30

Val Xaa Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu Ile
35          40          45

Tyr Xaa Gln Val Ala Pro Asn Ala Asn Tyr Asn Asp Val Ala Xaa Phe
50          55          60

Glu Val Xaa Leu Tyr Lys Asn Lys Asp Xaa Ile Gln Thr Leu Thr Asn
65          70          75          80

Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val Gly
85          90          95

Asp Thr Ile Asp Leu Ile Phe Xaa Ser Glu His Gln Xaa Leu Lys Xaa
100         105         110

Asn Thr Tyr Trp Gly Xaa Xaa Leu Leu Ala Asn Pro Gln Phe Ile Ser
115         120         125

<210> 36
<211> 128
<212> PRT
<213> Artificial

<220>
<223> Sintético

<220>
<221> CARACTERÍSTICA_MISC
<222> (112)..(112)
<223> XAA es cualquier aminoácido distinto de Asn

<400> 36
Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly Pro Leu
1          5          10          15

Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val Asn Lys
20          25          30

Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu Ile
35          40          45

Tyr Gly Gln Val Ala Pro Asn Ala Asn Tyr Asn Asp Val Ala Pro Phe
50          55          60

Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu Thr Asn
65          70          75          80

Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val Gly
85          90          95

Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys Xaa
100         105         110

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Asn Thr Tyr Trp Gly Ile Ile Leu Leu Ala Asn Pro Gln Phe Ile Ser  
115 120 125

<210> 37  
<211> 128  
<212> PRT  
<213> Artificial

<220>  
<223> Sintético

<400> 37

Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly Pro Leu  
1 5 10 15

Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val Asn Lys  
20 25 30

Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu Ile  
35 40 45

Tyr Gly Gln Val Ala Pro Asn Ala Asn Tyr Asn Asp Val Ala Pro Phe  
50 55 60

Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu Thr Asn  
65 70 75 80

Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val Gly  
85 90 95

Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys Asp  
100 105 110

Asn Thr Tyr Trp Gly Ile Ile Leu Leu Ala Asn Pro Gln Phe Ile Ser  
115 120 125

<210> 38  
<211> 229  
<212> PRT  
<213> Artificial

<220>  
<223> Sintético

<400> 38

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe  
1 5 10 15

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr  
20 25 30

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val  
35 40 45

Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val  
50 55 60

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser  
65 70 75 80

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu  
85 90 95

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser  
100 105 110

Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro  
115 120 125

Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln  
130 135 140

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala  
145 150 155 160

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr  
165 170 175

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu  
180 185 190

Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser  
195 200 205

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser  
210 215 220

Leu Ser Leu Gly Lys  
225

<210> 39  
<211> 1254  
<212> ADN  
<213> Artificial

<220>  
<223> Sintético

<400> 39  
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tccgtgttcc tgttcccccc aaagcccaag gacacctga tgatctcccg gacccccgaa 120  
gtgacctgcg tgggtggtga tgtgtcccag gaagatcccg aggtgcagtt caattggtac 180  
gtggacggcg tggaagtga caacgccaag accaagcca gagaggaaca gttcaactcc 240  
acctaccggg tgggtgtccgt gctgaccgtg ctgcaccagg attggctgaa cggcaaagag 300  
tacaagtga aggtgtccaa caagggcctg ccctccagca tcgaaaagac catctccaag 360  
gccaagggcc agccccggga accccaggtg tacacactgc ctccaagcca ggaagagatg 420  
accaagaacc aggtgtccct gacctgtctc gtgaagggtc tctaccctc cgatatcgcc 480  
gtggaatggg agtccaacgg ccagcctgag aacaactaca agaccacccc ccctgtgctg 540  
gactccgacg gctccttctt cctgtactcc cgcctgaccg tggacaagtc cagatggcag 600  
gaaggcaacg tgttctcctg ctccgtgatg cagaggccc tgcacaacca ctacaccag 660  
aagtccctgt ccctgtctct gggcaagggc ggcggaggat ctggcggagg cggttctggt 720  
ggtggtggat ctggtggcgg aggaagtggg ggagggggat ctgtgtctcg gctggaagag 780  
gaaatgcgga agctgcaggc caccgtgcag gaactgcaga agcggctgga cagactggaa 840  
gagacagtgc aggctaaggg cgggtggcga cagctcgaga cagccaaaga accctgcatg 900  
gccaagtctg gccccctgcc ttccaagtgg cagatggcct cttccgagcc cccctgcgtg 960  
aacaaagtgt ccgactggaa gctggaaatc ctgcagaacg gcctgtacct gatctacggc 1020  
caggtggccc ccaacgcaa ctacaacgat gtggccccct tcgaagtgcg gctgtacaag 1080  
aacaaggaca tgatccagac cctgaccaac aagagcaaga tccagaacgt gggcggcacc 1140  
tacgagctgc acgtgggcga taccatcgac ctgatcttca actccgagca ccaggtgctg 1200  
aaggacaaca cctactgggg catcatcctg ctggccaacc cccagttcat ctcc 1254

<210> 40  
<211> 418  
<212> PRT  
<213> Artificial

<220>  
<223> Sintético

<400> 40

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe  
1 5 10 15

Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr  
20 25 30

Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val  
35 40 45

Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val  
50 55 60

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser  
65 70 75 80

Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu  
85 90 95

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser  
100 105 110

Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro  
115 120 125

Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln  
130 135 140

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala  
145 150 155 160

Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr  
165 170 175

Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu  
180 185 190

Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser  
195 200 205

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser  
210 215 220

Leu Ser Leu Gly Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly  
225 230 235 240

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Val Ser  
245 250 255

Arg Leu Glu Glu Glu Met Arg Lys Leu Gln Ala Thr Val Gln Glu Leu  
260 265 270

Gln Lys Arg Leu Asp Arg Leu Glu Glu Thr Val Gln Ala Lys Gly Gly  
275 280 285

Gly Gly Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly  
290 295 300

Pro Leu Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val  
305 310 315 320

Asn Lys Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr  
325 330 335

Leu Ile Tyr Gly Gln Val Ala Pro Asn Ala Asn Tyr Asn Asp Val Ala  
340 345 350

Pro Phe Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu  
355 360 365

Thr Asn Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His  
370 375 380

Val Gly Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu  
385 390 395 400

Lys Asp Asn Thr Tyr Trp Gly Ile Ile Leu Leu Ala Asn Pro Gln Phe  
405 410 415

Ile Ser

<210> 41  
<211> 1299  
<212> ADN  
<213> Artificial

<220>  
<223> Sintético

<400> 41  
atggccatca tctacctgat cctgctgttc accgccgtgc ggggcgagtc taagtacggc 60  
cctccttgtc ctcttgccc tgcccctgag tttctgggcg gaccttcgt gttcctgttc 120  
ccccaaagc ccaaggacac cctgatgatc tcccgaccc ccgaagtac ctgctgtgtg 180  
gtggatgtgt cccaggaaga tcccgagggtg cagttcaatt ggtacgtgga cggcgtggaa 240  
gtgcacaacg ccaagaccaa gccagagag gaacagtca actccaccta ccgggtggtg 300  
tccgtgctga ccgtgctgca ccaggattgg ctgaacggca aagagtacaa gtgcaagggtg 360  
tccaacaagg gcctgccctc cagcatcgaa aagaccatct ccaaggccaa gggccagccc 420

cggaacccc aggtgtacac actgcctcca agccaggaag agatgaccaa gaaccagggtg 480  
 tccctgacct gtctcgtgaa gggcttctac ccctccgata tcgccgtgga atgggagttc 540  
 aacggccagc ctgagaacaa ctacaagacc acccccctg tgctggactc cgacggctcc 600  
 ttcttctgt actccgcct gaccgtggac aagtccagat ggcaggaagg caacgtgttc 660  
 tcctgctccg tgatgcacga ggccctgcac aaccactaca cccagaagtc cctgtccctg 720  
 tctctgggca agggcgggcg aggatctggc ggaggcggtt ctggtggtgg tggatctggt 780  
 ggcggaggaa gtgggggagg gggatctgtg tctcggctgg aagaggaaat gcggaagctg 840  
 caggccaccg tgcaggaact gcagaagcgg ctggacagac tggagagac agtgcaggct 900  
 aagggcggtg gcggacagct cgagacagcc aaagaaccct gcatggccaa gttcggcccc 960  
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 gccaactaca acgatgtggc ccccttcgaa gtgcggctgt acaagaacaa ggacatgatc 1140  
 cagaccctga ccaacaagag caagatccag aacgtgggcg gcacctacga gctgcacgtg 1200  
 ggcgatacca tcgacctgat ctcaactcc gagcaccagg tgctgaagga caacacctac 1260  
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<210> 42  
 <211> 433  
 <212> PRT  
 <213> Artificial

<220>  
 <223> Sintético

<400> 42

Met Ala Ile Ile Tyr Leu Ile Leu Leu Phe Thr Ala Val Arg Gly Glu  
 1 5 10 15

Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu  
 20 25 30

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu  
 35 40 45

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser  
 50 55 60

Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu  
 65 70 75 80

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr  
 85 90 95

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn  
 100 105 110

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser  
 115 120 125

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln  
 130 135 140

Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val  
 145 150 155 160

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val  
 165 170 175

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro  
 180 185 190

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr  
 195 200 205

Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val  
 210 215 220

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu  
 225 230 235 240

Ser Leu Gly Lys Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly  
 245 250 255

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Val Ser Arg  
260 265 270

Leu Glu Glu Glu Met Arg Lys Leu Gln Ala Thr Val Gln Glu Leu Gln  
275 280 285

Lys Arg Leu Asp Arg Leu Glu Glu Thr Val Gln Ala Lys Gly Gly Gly  
290 295 300

Gly Gln Leu Glu Thr Ala Lys Glu Pro Cys Met Ala Lys Phe Gly Pro  
305 310 315 320

Leu Pro Ser Lys Trp Gln Met Ala Ser Ser Glu Pro Pro Cys Val Asn  
325 330 335

Lys Val Ser Asp Trp Lys Leu Glu Ile Leu Gln Asn Gly Leu Tyr Leu  
340 345 350

Ile Tyr Gly Gln Val Ala Pro Asn Ala Asn Tyr Asn Asp Val Ala Pro  
355 360 365

Phe Glu Val Arg Leu Tyr Lys Asn Lys Asp Met Ile Gln Thr Leu Thr  
370 375 380

Asn Lys Ser Lys Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val  
385 390 395 400

Gly Asp Thr Ile Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys  
405 410 415

Asp Asn Thr Tyr Trp Gly Ile Ile Leu Leu Ala Asn Pro Gln Phe Ile  
420 425 430

Ser

<210> 43  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 43

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg  
1 5

<210> 44  
<211> 9  
<212> PRT  
<213> Homo sapiens

<400> 44

Asp Met Ile Gln Thr Leu Thr Asn Lys  
1 5

<210> 45  
<211> 45  
<212> PRT  
<213> Homo sapiens

<400> 45

Ile Gln Asn Val Gly Gly Thr Tyr Glu Leu His Val Gly Asp Thr Ile  
1 5 10 15

Asp Leu Ile Phe Asn Ser Glu His Gln Val Leu Lys Asn Asn Thr Tyr  
20 25 30

Trp Gly Ile Ile Leu Leu Ala Asn Pro Gln Phe Ile Ser  
35 40 45

<210> 46  
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<212> PRT  
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Ser

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Gly Cys Gly Pro Gly Arg Leu Leu Leu Gly Thr Gly Thr Asp Ala Arg  
 35 40 45

Cys Cys Arg Val His Thr Thr Arg Cys Cys Arg Asp Tyr Pro Gly Glu  
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Glu Cys Cys Ser Glu Trp Asp Cys Met Cys Val Gln Pro Glu Phe His  
 65 70 75 80

Cys Gly Asp Pro Cys Cys Thr Thr Cys Arg His His Pro Cys Pro Pro  
 85 90 95

Gly Gln Gly Val Gln Ser Gln Gly Lys Phe Ser Phe Gly Phe Gln Cys  
 100 105 110

Ile Asp Cys Ala Ser Gly Thr Phe Ser Gly Gly His Glu Gly His Cys  
 115 120 125

Lys Pro Trp Thr Asp Cys Thr Gln Phe Gly Phe Leu Thr Val Phe Pro  
 130 135 140

Gly Asn Lys Thr His Asn Ala Val Cys Val Pro Gly Ser Pro Pro Ala  
 145 150 155 160

Glu Pro Leu Gly Trp Leu Thr Val Val Leu Leu Ala Val Ala Ala Cys  
 165 170 175

Val Leu Leu Leu Thr Ser Ala Gln Leu Gly Leu His Ile Trp Gln Leu  
 180 185 190

Arg Ser Gln Cys Met Trp Pro Arg Glu Thr Gln Leu Leu Leu Glu Val  
 195 200 205

Pro Pro Ser Thr Glu Asp Ala Arg Ser Cys Gln Phe Pro Glu Glu Glu  
 210 215 220

Arg Gly Glu Arg Ser Ala Glu Glu Lys Gly Arg Leu Gly Asp Leu Trp  
 225 230 235 240

Val