

LISTADO DE SECUENCIAS

<110> Daiichi Sankyo Company, Limited
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 10 <151> 2013-12-25
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<223> Secuencia de aminoácidos de cadena pesada del anticuerpo quimérico
 murino-
 30 humano TINA1

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Pro Gly Glu Thr Val Arg Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe
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25 Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
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40 <210> 9
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 murino-
 humano TINA1

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        humano TINA1

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<223> Secuencia de nucleótidos de cadena pesada del anticuerpo TINA1
humanizado,
tipo H1

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<223> Secuencia de aminoácidos de cadena pesada del anticuerpo TINA1
humanizado,
tipo H1

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Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
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Glu Trp Met Gly Trp Ile Asn Thr His Ser Gly Val Pro Lys Tyr Ala
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Glu Asp Phe Lys Gly Arg Val Thr Ile Ser Ala Asp Thr Ser Thr Ser
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35

Thr Ala Tyr Leu Gln Leu Ser Ser Leu Lys Ser Glu Asp Thr Ala Val
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Tyr Tyr Cys Ala Arg Ser Gly Phe Gly Ser Ser Tyr Trp Tyr Phe Asp
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Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys
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Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
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Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val
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 humanizado,
 tipo H2

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 <223> Secuencia de aminoácidos de cadena pesada del anticuerpo TINA1
 humanizado,
 20 tipo H2

<400> 14

25 Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
 1 5 10 15

Val Leu Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
 20 25 30

Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
 35 40 45

35 Thr Thr Ala Gly Met Gln Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
 50 55 60

40 Glu Trp Met Gly Trp Ile Asn Thr His Ser Gly Val Pro Lys Tyr Ala
 65 70 75 80

45 Glu Asp Phe Lys Gly Arg Val Thr Ile Ser Leu Asp Thr Ser Thr Ser
 85 90 95

Thr Ala Tyr Leu Gln Leu Ser Ser Leu Lys Ser Glu Asp Thr Ala Val
 100 105 110

50

Tyr Tyr Cys Ala Arg Ser Gly Phe Gly Ser Ser Tyr Trp Tyr Phe Asp
 115 120 125

55

Val Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys
 130 135 140

	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	
	145					150					155					160	
5	Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	
					165					170					175		
10	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	
				180					185					190			
15	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	
			195					200					205				
20	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	
	210						215					220					
25	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	
					245					250					255		
30	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	
				260					265					270			
35	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	
			275					280					285				
40	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	
		290					295					300					
45	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	
	305					310					315					320	
50	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	
					325					330					335		
55	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	
				340					345					350			
60	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	
			355					360					365				
65	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	
		370					375					380					

10 Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
420 425 430

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
450 455 460

20
Ser Leu Ser Pro Gly Lys
465 470

25	<210>	15
	<211>	1410
	<212>	ADN
	<213>	Secuencia Artificial

30 <220>
 <223> Secuencia de nucleótidos de cadena pesada del anticuerpo TINA1
 humanizado,
 tipo H3

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	atccagctgg	tgcagtctgg	cgccgaagtg	aagaaacccg	gcgagagcgt	gaagggtgtcc			120
40	tgcaaggcca	gcggtctacac	ctttaccacc	gccggcatgc	agtgggtgca	gcagatgcct			180
	ggcaagggcc	tggaatggat	gggctggatc	aacaccacaca	gcggcgtgcc	caaatacgcc			240
	gaggacttca	agggcagagt	gaccttcagc	ctggacacca	gcacctccac	cgcctacctg			300
45	cagctgagca	gcctgaagtc	cgaggacacc	gccgtgtact	actgcgccag	aagcggcttc			360
	ggcagcagct	actggtactt	cgacgtgtgg	ggccagggca	ccctcgtgac	cgtcagctca			420
50	gcctccacca	agggcccaag	cgtcttcccc	ctggcaccct	cctccaagag	cacctctggc			480
	ggcacagccg	ccctgggctg	cctggtcaag	gactacttcc	ccgaaccctg	gaccgtgagc			540
	tggaactcag	gcgccctgac	cagcggcgtg	cacaccttcc	ccgctgtcct	gcagtcctca			600
55	ggactctact	ccctcagcag	cgtggtgacc	gtgccctcca	gcagcttggg	caccagacc			660
	tacatctgca	acgtgaatca	caagcccagc	aacaccaagg	tggacaagag	agttgagccc			720

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aaatcttggtg aaaaaactca cacatgcccc ccctgcccag cacctgaact cctgggggga      780
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5 gaggtcacat gcgtggtggt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg      900
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cccggggagga gcagtacaac      960
agcacgtacc ggggtggtcag cgctctcacc gtcctgcacc aggactggct gaatggcaag     1020
10 gagtacaagt gcaaggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc     1080
aaagccaaag gccagccccg ggaaccacag gtgtacaccc tgcccccatc ccggggaggag     1140
15 atgaccaaga accaggtcag cctgacctgc ctggtcaaag gcttctatcc cagcgacatc     1200
gccgtggagt gggagagcaa tggccagccc gagaacaact acaagaccac ccctcccgtg     1260
ctggactccg acggctcctt ctctctctac agcaagctca ccgtggacaa gacgaggtgg     1320
20 cagcagggca acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacc     1380
cagaagagcc tctccctgtc tcccggcaaa      1410

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25 <210> 16
   <211> 470
   <212> PRT
   <213> Secuencia Artificial
30 <220>
   <223> Secuencia de aminoácidos de cadena pesada del anticuerpo TINA1
        humanizado,
        tipo H3
35 <400> 16

Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
1          5          10          15
40 Val Leu Ser Gln Ile Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys
    20          25          30

45 Pro Gly Glu Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
    35          40          45

50 Thr Thr Ala Gly Met Gln Trp Val Gln Gln Met Pro Gly Lys Gly Leu
    50          55          60

55 Glu Trp Met Gly Trp Ile Asn Thr His Ser Gly Val Pro Lys Tyr Ala
    65          70          75          80

Glu Asp Phe Lys Gly Arg Val Thr Phe Ser Leu Asp Thr Ser Thr Ser
    85          90          95

```

	Thr	Ala	Tyr	Leu	Gln	Leu	Ser	Ser	Leu	Lys	Ser	Glu	Asp	Thr	Ala	Val	
				100					105					110			
5	Tyr	Tyr	Cys	Ala	Arg	Ser	Gly	Phe	Gly	Ser	Ser	Tyr	Trp	Tyr	Phe	Asp	
			115					120					125				
10	Val	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	
		130					135					140					
15	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly	
	145					150					155					160	
	Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	
					165					170					175		
20	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	
				180					185					190			
25	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	
			195					200					205				
30	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	
		210					215					220					
35	Val	Asn	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Pro	
	225					230					235				240		
	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	
					245					250					255		
40	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	
				260					265					270			
45	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	
			275					280					285				
50	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	
		290					295					300					
55	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	
	305					310					315				320		
	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	
					325					330					335		

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
 340 345 350

5 Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
 355 360 365

10 Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
 370 375 380

15 Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
 385 390 395 400

20 Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
 405 410 415

25 Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
 435 440 445

30 Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
 450 455 460

35 Ser Leu Ser Pro Gly Lys
 465 470

40 <210> 17
 <211> 702
 <212> ADN
 <213> Secuencia Artificial

45 <220>
 <223> Secuencia de nucleótidos de cadena ligera del anticuerpo TINA1
 humanizado,
 tipo L1

50 <400> 17
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 gacatccaga tgaccagag ccctagcagc ctgagcgcca gcgtgggcga cagagtgacc 120
 atcacatgca aggccagcca ggacgtgtcc acagccgtgg cctggatatca gcagaagcct 180
 ggcaaggccc ccaagctgct gatctacagc gccagctacc ggtacaccgg cgtgcccagc 240
 55 agattttctg gcagcggctc cggcaccgac ttcaccctga caatcagcag cctgcagccc 300
 gaggacttcg ccgtgtacta ctgccagcag cactacatca cccccctgac ctttggccag 360

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ggcaccaagc tggaaatcaa gcgtacggtg gccgccccct ccgtgttcat cttccccccc 420
tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac 480
5  cccagagagg ccaaggtgca gtggaagggtg gacaacgcc tgcagtccgg gaactcccag 540
gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc 600
ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660
10 ctgagctccc ccgtcaccaa gagcttcaac aggggggaggt gt 702

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<210> 18
15 <211> 234
    <212> PRT
    <213> Secuencia Artificial

    <220>
20 <223> Secuencia de aminoácidos de cadena ligera del anticuerpo TINA1
    humanizado,
        tipo L1

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<400> 18
25 Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
    1           5           10           15

30 Gly Ala Tyr Gly Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser
    20           25           30

35 Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp
    35           40           45

40 Val Ser Thr Ala Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
    50           55           60

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

45 Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
    85           90           95

50 Ser Leu Gln Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln His Tyr
    100          105          110

    Ile Thr Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
    115          120          125

55 Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
    130          135          140

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[illegible]

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ctgagctccc ccgtcaccaa gagcttcaac aggggggaggt gt 702

5

<210> 20

<211> 234

<212> PRT

<213> Secuencia Artificial

10

<220>

<223> Secuencia de aminoácidos de cadena ligera del anticuerpo TINA1
humanizado,
tipo L2

15

<400> 20

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

20

Gly Ala Tyr Gly Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser
20 25 30

25

Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp
35 40 45

30

Val Ser Thr Ala Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
50 55 60

35

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

40

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
85 90 95

Ser Leu Gln Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln His Tyr
100 105 110

45

Ile Thr Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
115 120 125

50

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

55

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

5 Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

10 Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
195 200 205

15 His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
210 215 220

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225 230

20 <210> 21
<211> 702
<212> ADN
<213> Secuencia Artificial

25 <220>
<223> Secuencia de nucleótidos de cadena ligera del anticuerpo TINA1
humanizado,
tipo L3

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35 atcacatgca aggccagcca ggacgtgtcc acagccgtgg cctggtatca gcagaagccc 180
ggcaagcagc ccaagctgct gatctacagc gccagctacc ggtacaccgg cgtgcccagc 240
40 agattttctg gcagcggctc cggcaccgac ttcacctga caatcagcag cctgcagccc 300
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45 tccgacgagc agctgaagtc cggcaccgcc tccgtggtgt gcctgctgaa taacttctac 480
cccagagagg ccaaggtgca gtggaagggtg gacaacgccc tgcagtccgg gaactcccag 540
50 gagagcgtga ccgagcagga cagcaaggac agcacctaca gcctgagcag caccctgacc 600
ctgagcaaag ccgactacga gaagcacaag gtgtacgcct gcgaggtgac ccaccagggc 660
ctgagctccc ccgtcaccaa gagcttcaac agggggggagt gt 702

55 <210> 22
<211> 234

<212> PRT

<213> Secuencia Artificial

<220>

5 <223> Secuencia de aminoácidos de cadena ligera del anticuerpo TINA1
humanizado,
tipo L3

<400> 22

10

Met Val Leu Gln Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser
1 5 10 15

15

Gly Ala Tyr Gly Asp Ile Val Met Thr Gln Ser Pro Ser Ser Leu Ser
20 25 30

20

Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp
35 40 45

25

Val Ser Thr Ala Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Gln Pro
50 55 60

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

30

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
85 90 95

35

Ser Leu Gln Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln His Tyr
100 105 110

40

Ile Thr Pro Leu Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
115 120 125

45

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
130 135 140

Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
145 150 155 160

50

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
165 170 175

55

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
180 185 190

Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys
 195 200 205

5 His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
 210 215 220

10 Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 225 230

15 <210> 23
 <211> 5
 <212> PRT
 <213> Mus musculus
 <400> 23

20 Thr Ala Gly Met Gln
 1 5

25 <210> 24
 <211> 17
 <212> PRT
 <213> Mus musculus
 <400> 24

30 Trp Ile Asn Thr His Ser Gly Val Pro Lys Tyr Ala Glu Asp Phe Lys
 1 5 10 15

35 Gly

40 <210> 25
 <211> 12
 <212> PRT
 <213> Mus musculus
 <400> 25

45 Ser Gly Phe Gly Ser Ser Tyr Trp Tyr Phe Asp Val
 1 5 10

50 <210> 26
 <211> 11
 <212> PRT
 <213> Mus musculus

55 <400> 26
 Lys Ala Ser Gln Asp Val Ser Thr Ala Val Ala
 1 5 10

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<210> 27
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<212> PRT
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<400> 27

Ser Ala Ser Tyr Arg Tyr Thr
1          5

10

<210> 28
<211> 9
<212> PRT
15 <213> Mus musculus

<400> 28

Gln Gln His Tyr Ile Thr Pro Leu Thr
20 1          5

<210> 29
<211> 1410
<212> ADN
25 <213> Homo sapiens

<400> 29
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tgcaaggcca gcggctacac cttcaccaac tacggcatga actgggtgaa gcaggcccca      180
ggccagggcc tgaagtggat gggctggatc aacacctaca ccggcgagcc cacctacacc      240
35 gacgacttca agggccggtt cgccttcagc ctggacacca gcgtgagcac cgcctacctg      300
cagatcagca gcctgaaggc cgacgatacc gccgtgtact tctgcgccag aggcggcttc      360
40 ggcagcagct actggtactt cgacgtgtgg ggccagggca gcctggtgac cgtgagctca      420
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45 tggaactcag gcgccctgac cagcggcgtg cacaccttcc ccgctgtcct gcagtcctca      600
ggactctact ccctcagcag cgtggtgacc gtgccctcca gcagcttggg caccagacc      660
50 tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagag agttgagccc      720
aaatcttgtg aaaaaactca cacatgccca ccctgccag cacctgaact cctgggggga      780
ccctcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt      840
55 gaggtcacat gcgtgggtgt ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg      900
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cccgggagga gcagtacaac      960

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5    aaagccaaag gccagccccg ggaaccacag gtgtacaccc tgcccccatc ccgggaggag      1140
    atgaccaaga accaggtcag cctgacctgc ctggtaaag gcttctatcc cagcgacatc      1200
    gccgtggagt gggagagcaa tggccagccc gagaacaact acaagaccac ccctcccgtg      1260
10   ctggactccg acggctcctt cttcctctac agcaagctca ccgtggacaa gagcagggtg      1320
    cagcagggca acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacc      1380
15   cagaagagcc tctccctgtc tcccggcaaa      1410

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    <210> 30
    <211> 470
20   <212> PRT
    <213> Homo sapiens

    <400> 30

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25   Met Lys His Leu Trp Phe Phe Leu Leu Leu Val Ala Ala Pro Arg Trp
     1             5             10             15

```

```

30   Val Leu Ser Gln Val Gln Leu Gln Gln Ser Gly Ser Glu Leu Lys Lys
     20             25             30

```

```

35   Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe
     35             40             45

```

```

40   Thr Asn Tyr Gly Met Asn Trp Val Lys Gln Ala Pro Gly Gln Gly Leu
     50             55             60

```

```

40   Lys Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Pro Thr Tyr Thr
     65             70             75             80

```

```

45   Asp Asp Phe Lys Gly Arg Phe Ala Phe Ser Leu Asp Thr Ser Val Ser
     85             90             95

```

```

50   Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Asp Asp Thr Ala Val
     100            105            110

```

```

55   Tyr Phe Cys Ala Arg Gly Gly Phe Gly Ser Ser Tyr Trp Tyr Phe Asp
     115            120            125

```

	Val	Trp	Gly	Gln	Gly	Ser	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys
	130						135					140				
5	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Ser	Ser	Lys	Ser	Thr	Ser	Gly
	145					150					155					160
10	Gly	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro
					165					170					175	
15	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr
				180					185					190		
20	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val
			195					200					205			
25	Val	Asn	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Pro
	225					230					235					240
30	Lys	Ser	Cys	Asp	Lys	Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu
					245					250					255	
35	Leu	Leu	Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp
				260					265					270		
40	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp
			275					280					285			
45	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly
		290					295					300				
50	Ser	Thr	Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp
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5 Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
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10 Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
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15 Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
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Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
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20 Ala Ser Val Gly Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp
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20 Val Ser Ile Ala Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro
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25 Lys Leu Leu Ile Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Asp
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30 Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser
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35 Ser Leu Gln Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln His Tyr
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40 Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
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45 Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
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50 Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
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