

SEQUENCE LISTING

<110> Chiome Bioscience Inc.

<120> Anti-CDCP1 antibody

<130> G3170

<150> JP2019-238928

<151> 2019-12-27

<160> 188

<170> PatentIn version 3.5

<210> 1

<211> 836

<212> PRT

<213> Homo sapiens

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Ala Leu Pro Arg Glu Ser Asn Ile Thr Val Leu Ile Lys Leu Gly Thr
35 40 45

Pro Thr Leu Leu Ala Lys Pro Cys Tyr Ile Val Ile Ser Lys Arg His
50 55 60

Ile Thr Met Leu Ser Ile Lys Ser Gly Glu Arg Ile Val Phe Thr Phe
65 70 75 80

Ser Cys Gln Ser Pro Glu Asn His Phe Val Ile Glu Ile Gln Lys Asn
85 90 95

Ile Asp Cys Met Ser Gly Pro Cys Pro Phe Gly Glu Val Gln Leu Gln
100 105 110

Pro Ser Thr Ser Leu Leu Pro Thr Leu Asn Arg Thr Phe Ile Trp Asp

115					120					125						
Val	Lys	Ala	His	Lys	Ser	Ile	Gly	Leu	Glu	Leu	Gln	Phe	Ser	Ile	Pro	
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His	Ser	Ile	Ser	Gly	Arg	Ile	Asp	Ala	Thr	Val	Val	Arg	Ile	Gly	Thr	
165					170					175						
Phe	Cys	Ser	Asn	Gly	Thr	Val	Ser	Arg	Ile	Lys	Met	Gln	Glu	Gly	Val	
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Lys	Met	Ala	Leu	His	Leu	Pro	Trp	Phe	His	Pro	Arg	Asn	Val	Ser	Gly	
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Phe	Ser	Ile	Ala	Asn	Arg	Ser	Ser	Ile	Lys	Arg	Leu	Cys	Ile	Ile	Glu	
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Ser	Val	Phe	Glu	Gly	Glu	Gly	Ser	Ala	Thr	Leu	Met	Ser	Ala	Asn	Tyr	
225					230					235					240	
Pro	Glu	Gly	Phe	Pro	Glu	Asp	Glu	Leu	Met	Thr	Trp	Gln	Phe	Val	Val	
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260					265					270						
Asn	Cys	Glu	Arg	Lys	Glu	Glu	Arg	Val	Glu	Tyr	Tyr	Ile	Pro	Gly	Ser	
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Thr	Thr	Asn	Pro	Glu	Val	Phe	Lys	Leu	Glu	Asp	Lys	Gln	Pro	Gly	Asn	
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Gln Ser Pro Gly Ile Leu Arg Leu Gln Phe Gln Val Leu Val Gln His
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Pro Gln Asn Glu Ser Asn Lys Ile Tyr Val Val Asp Leu Ser Asn Glu
340 345 350

Arg Ala Met Ser Leu Thr Ile Glu Pro Arg Pro Val Lys Gln Ser Arg
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Lys Phe Val Pro Gly Cys Phe Val Cys Leu Glu Ser Arg Thr Cys Ser
370 375 380

Ser Asn Leu Thr Leu Thr Ser Gly Ser Lys His Lys Ile Ser Phe Leu
385 390 395 400

Cys Asp Asp Leu Thr Arg Leu Trp Met Asn Val Glu Lys Thr Ile Ser
405 410 415

Cys Thr Asp His Arg Tyr Cys Gln Arg Lys Ser Tyr Ser Leu Gln Val
420 425 430

Pro Ser Asp Ile Leu His Leu Pro Val Glu Leu His Asp Phe Ser Trp
435 440 445

Lys Leu Leu Val Pro Lys Asp Arg Leu Ser Leu Val Leu Val Pro Ala
450 455 460

Gln Lys Leu Gln Gln His Thr His Glu Lys Pro Cys Asn Thr Ser Phe
465 470 475 480

Ser Tyr Leu Val Ala Ser Ala Ile Pro Ser Gln Asp Leu Tyr Phe Gly
485 490 495

Ser Phe Cys Pro Gly Gly Ser Ile Lys Gln Ile Gln Val Lys Gln Asn
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Ile Ser Val Thr Leu Arg Thr Phe Ala Pro Ser Phe Gln Gln Glu Ala
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Ser Arg Gln Gly Leu Thr Val Ser Phe Ile Pro Tyr Phe Lys Glu Glu
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Gly Val Phe Thr Val Thr Pro Asp Thr Lys Ser Lys Val Tyr Leu Arg
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Thr Pro Asn Trp Asp Arg Gly Leu Pro Ser Leu Thr Ser Val Ser Trp
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Asn Ile Ser Val Pro Arg Asp Gln Val Ala Cys Leu Thr Phe Phe Lys
580 585 590

Glu Arg Ser Gly Val Val Cys Gln Thr Gly Arg Ala Phe Met Ile Ile
595 600 605

Gln Glu Gln Arg Thr Arg Ala Glu Glu Ile Phe Ser Leu Asp Glu Asp
610 615 620

Val Leu Pro Lys Pro Ser Phe His His His Ser Phe Trp Val Asn Ile
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Ser Asn Cys Ser Pro Thr Ser Gly Lys Gln Leu Asp Leu Leu Phe Ser
645 650 655

Val Thr Leu Thr Pro Arg Thr Val Asp Leu Thr Val Ile Leu Ile Ala
660 665 670

Ala Val Gly Gly Gly Val Leu Leu Leu Ser Ala Leu Gly Leu Ile Ile
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Cys Cys Val Lys Lys Lys Lys Lys Lys Thr Asn Lys Gly Pro Ala Val
690 695 700

Gly Ile Tyr Asn Asp Asn Ile Asn Thr Glu Met Pro Arg Gln Pro Lys
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Lys Phe Gln Lys Gly Arg Lys Asp Asn Asp Ser His Val Tyr Ala Val
725 730 735

Ile Glu Asp Thr Met Val Tyr Gly His Leu Leu Gln Asp Ser Ser Gly
740 745 750

Ser Phe Leu Gln Pro Glu Val Asp Thr Tyr Arg Pro Phe Gln Gly Thr
755 760 765

Met Gly Val Cys Pro Pro Ser Pro Pro Thr Ile Cys Ser Arg Ala Pro
770 775 780

Thr Ala Lys Leu Ala Thr Glu Glu Pro Pro Pro Arg Ser Pro Pro Glu
785 790 795 800

Ser Glu Ser Glu Pro Tyr Thr Phe Ser His Pro Asn Asn Gly Asp Val
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Glu Pro Ala Glu
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Val Ile Ser Lys Arg His Ile Thr Met Leu Ser Ile Lys Ser Gly Glu
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Arg Ile Val Phe Thr Phe Ser Cys Gln Ser Pro Glu Asn His Phe Val
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Ile Glu Ile Gln Lys Asn Ile Asp Cys Met Ser Gly Pro Cys Pro Phe
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Gly Glu Val Gln Leu Gln Pro Ser Thr Ser Leu Leu Pro Thr Leu Asn
100 105 110

Arg Thr Phe Ile Trp Asp Val Lys Ala His Lys Ser Ile Gly Leu Glu
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Leu Gln Phe Ser Ile Pro Arg Leu Arg Gln Ile Gly Pro Gly Glu Ser
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Cys Pro Asp Gly Val Thr His Ser Ile Ser Gly Arg Ile Asp Ala Thr
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165 170 175

Lys Met Gln Glu Gly Val Lys Met Ala Leu His Leu Pro Trp Phe His
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Pro Arg Asn Val Ser Gly Phe Ser Ile Ala Asn Arg Ser Ser Ile Lys
195 200 205

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210 215 220

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Thr Trp Gln Phe Val Val Pro Ala His Leu Arg Ala Ser Val Ser Phe
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Gly Cys Asp Gln Asp Ala Gln Ser Pro Gly Ile Leu Arg Leu Gln Phe		
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Gln Val Leu Val Gln His Pro Gln Asn Glu Ser Asn Lys Ile Tyr Val		
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Pro Val Lys Gln Ser Arg Lys Phe Val Pro Gly Cys Phe Val Cys Leu		
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Glu Ser Arg Thr Cys Ser Ser Asn Leu Thr Leu Thr Ser Gly Ser Lys		
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Ser Tyr Ser Leu Gln Val Pro Ser Asp Ile Leu His Leu Pro Val Glu		
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Leu His Asp Phe Ser Trp Lys Leu Leu Val Pro Lys Asp Arg Leu Ser		
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Gln Asp Leu Tyr Phe Gly Ser Phe Cys Pro Gly Gly Ser Ile Lys Gln
485 490 495

Ile Gln Val Lys Gln Asn Ile Ser Val Thr Leu Arg Thr Phe Ala Pro
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Ser Phe Gln Gln Glu Ala Ser Arg Gln Gly Leu Thr Val Ser Phe Ile
515 520 525

Pro Tyr Phe Lys Glu Glu Gly Val Phe Thr Val Thr Pro Asp Thr Lys
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Ser Lys Val Tyr Leu Arg Thr Pro Asn Trp Asp Arg Gly Leu Pro Ser
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Cys Leu Thr Phe Phe Lys Glu Arg Ser Gly Val Val Cys Gln Thr Gly
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Arg Ala Phe Met Ile Ile Gln Glu Gln Arg Thr Arg Ala Glu Glu Ile
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Phe Ser Leu Asp Glu Asp Val Leu Pro Lys Pro Ser Phe His His His
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Ser Phe Trp Val Asn Ile Ser Asn Cys Ser Pro Thr Ser Gly Lys Gln
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 <213> Homo sapiens

<400> 3

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Glu Ile Ala Leu Pro Arg Glu Ser Asn Ile Thr Val Leu Ile Lys Leu
 35 40 45

Gly Thr Pro Thr Leu Leu Ala Lys Pro Cys Tyr Ile Val Ile Ser Lys
 50 55 60

Arg His Ile Thr Met Leu Ser Ile Lys Ser Gly Glu Arg Ile Val Phe
 65 70 75 80

Thr Phe Ser Cys Gln Ser Pro Glu Asn His Phe Val Ile Glu Ile Gln
85 90 95

Lys Asn Ile Asp Cys Met Ser Gly Pro Cys Pro Phe Gly Glu Val Gln
100 105 110

Leu Gln Pro Ser Thr Ser Leu Leu Pro Thr Leu Asn Arg Thr Phe Ile
115 120 125

Trp Asp Val Lys Ala His Lys Ser Ile Gly Leu Glu Leu Gln Phe Ser
130 135 140

Ile Pro Arg Leu Arg Gln Ile Gly Pro Gly Glu Ser Cys Pro Asp Gly
145 150 155 160

Val Thr His Ser Ile Ser Gly Arg Ile Asp Ala Thr Val Val Arg Ile
165 170 175

Gly Thr Phe Cys Ser Asn Gly Thr Val Ser Arg Ile Lys Met Gln Glu
180 185 190

Gly Val Lys Met Ala Leu His Leu Pro Trp Phe His Pro Arg Asn Val
195 200 205

Ser Gly Phe Ser Ile Ala Asn Arg Ser Ser Ile Lys Arg Leu Cys Ile
210 215 220

Ile Glu Ser Val Phe Glu Gly Glu Gly Ser Ala Thr Leu Met Ser Ala
225 230 235 240

Asn Tyr Pro Glu Gly Phe Pro Glu Asp Glu Leu Met Thr Trp Gln Phe
245 250 255

Val Val Pro Ala His Leu Arg Ala Ser Val Ser Phe Leu Asn Phe Asn
260 265 270

Leu Ser Asn Cys Glu Arg Lys Glu Glu Arg Val Glu Tyr Tyr Ile Pro
275 280 285

Gly Ser Thr Thr Asn Pro Glu Val Phe Lys Leu Glu Asp Lys Gln Pro
290 295 300

Gly Asn Met Ala Gly Asn Phe Asn Leu Ser Leu Gln Gly Cys Asp Gln
305 310 315 320

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

Asn Glu Arg Ala Met Ser Leu Thr Ile Glu Pro Arg Pro Val Lys Gln
355 360 365

Ser Arg Lys Phe Val Pro Gly Cys Phe Val Cys Leu Glu Ser Arg Thr
370 375 380

Cys Ser Ser Asn Leu Thr Leu Thr Ser Gly Ser Lys His Lys Ile Ser
385 390 395 400

Phe Leu Cys Asp Asp Leu Thr Arg Leu Trp Met Asn Val Glu Lys Thr
405 410 415

Ile Ser Cys Thr Asp His Arg Tyr Cys Gln Arg Lys Ser Tyr Ser Leu
420 425 430

Gln Val Pro Ser Asp Ile Leu His Leu Pro Val Glu Leu His Asp Phe
435 440 445

Ser Trp Lys Leu Leu Val Pro Lys Asp Arg Leu Ser Leu Val Leu Val
450 455 460

Pro Ala Gln Lys Leu Gln Gln His Thr His Glu Lys Pro Cys Asn Thr
465 470 475 480

Ser Phe Ser Tyr Leu Val Ala Ser Ala Ile Pro Ser Gln Asp Leu Tyr

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Glu Ala Ser Arg Gln Gly Leu Thr Val Ser Phe Ile Pro Tyr Phe Lys		
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Glu Glu Gly Val Phe Thr Val Thr Pro Asp Thr Lys Ser Lys Val Tyr		
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Leu Arg Thr Pro Asn Trp Asp Arg Gly Leu Pro Ser Leu Thr Ser Val		
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Ser Trp Asn Ile Ser Val Pro Arg Asp Gln Val Ala Cys Leu Thr Phe		
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Phe Lys Glu Arg Ser Gly Val Val Cys Gln Thr Gly Arg Ala Phe Met		
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Ile Ile Gln Glu Gln Arg Thr Arg Ala Glu Glu Ile Phe Ser Leu Asp		
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Asn Ile Ser Asn Cys Ser Pro Thr Ser Gly Lys Gln Leu Asp Leu Leu		
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Phe Ser Val Thr Leu Thr Pro Arg Thr Val Asp Leu Thr Val Ile Leu		
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Ile Ile Cys Cys Val Lys Lys Lys Lys Lys Lys Thr Asn Lys Gly Pro
690 695 700

Ala Val Gly Ile Tyr Asn Asp Asn Ile Asn Thr Glu Met Pro Arg Gln
705 710 715 720

Pro Lys Lys Phe Gln Lys Gly Arg Lys Asp Asn Asp Ser His Val Tyr
725 730 735

Ala Val Ile Glu Asp Thr Met Val Tyr Gly His Leu Leu Gln Asp Ser
740 745 750

Ser Gly Ser Phe Leu Gln Pro Glu Val Asp Thr Tyr Arg Pro Phe Gln
755 760 765

Gly Thr Met Gly Val Cys Pro Pro Ser Pro Pro Thr Ile Cys Ser Arg
770 775 780

Ala Pro Thr Ala Lys Leu Ala Thr Glu Glu Pro Pro Pro Arg Ser Pro
785 790 795 800

Pro Glu Ser Glu Ser Glu Pro Tyr Thr Phe Ser His Pro Asn Asn Gly
805 810 815

Asp Val Ser Ser Lys Asp Thr Asp Ile Pro Leu Leu Asn Thr Gln Glu
820 825 830

Pro Met Glu Pro Ala Glu
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 <400> 21
 caggctgttg tgactcag 18

<210> 22
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<220>
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 caacttgtgc tcactcag 18

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<210> 24
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<400> 24

 Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln

1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Lys Pro Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Phe Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
65 70 75 80

Phe Leu Met Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Ser Pro Tyr Gly Asp Tyr Phe Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Leu Thr Val Ser Ser
115

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<400> 25

Thr Ser Gly Met Gly Val Ser
1 5

<210> 26
<211> 16
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<400> 26

His Ile Phe Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 27
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<213> Mus musculus

<400> 27

Ser Pro Tyr Gly Asp Tyr Phe Asp Tyr
1 5

<210> 28
<211> 111
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<400> 28

Lys Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Arg
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

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

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

Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

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<213> Mus musculus

<400> 29

Arg Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Met His
1 5 10 15

<210> 30

<211> 7

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<213> Mus musculus

<400> 30

Arg Ala Ser Asn Leu Glu Ser
1 5

<210> 31

<211> 9

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<213> Mus musculus

<400> 31

Gln Gln Asn Asn Glu Asp Pro Trp Thr
1 5

<210> 32

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<213> Mus musculus

<400> 32

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
1 5 10 15

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

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

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

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

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

Thr Thr Ser Pro Ala His Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val
100 105 110

Ser Ser

<210> 33
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<400> 33

Asn Tyr Trp Met Gln
1 5

<210> 34
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<400> 34

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

Gly

<210> 35
<211> 5
<212> PRT
<213> Mus musculus

<400> 35

Ser Pro Ala His Tyr
1 5

<210> 36
<211> 111
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<400> 36

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

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

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

Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 37
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<400> 37

Arg Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Met His
1 5 10 15

<210> 38

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<400> 38

Leu Ala Ser Asn Leu Glu Ser
1 5

<210> 39
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<400> 39

Gln Gln Asn Asn Glu Asp Pro Trp Thr
1 5

<210> 40
<211> 117
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<400> 40

Glu Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

Trp Met Asp Trp Val Arg Gln Ser Pro Glu Lys Gly Leu Glu Trp Val
35 40 45

Ala Glu Ile Arg Ser Lys Ala Asn Asn His Ala Thr Tyr Tyr Ala Glu
50 55 60

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

Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Gly Ile Tyr
85 90 95

Tyr Cys Thr Arg Gly Thr Leu Gly Ser Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ala
115

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<211> 5
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<400> 41

Asp Ala Trp Met Asp
1 5

<210> 42
<211> 19
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<400> 42

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

Val Lys Gly

<210> 43
<211> 6
<212> PRT
<213> Mus musculus

<400> 43

Gly Thr Leu Gly Ser Tyr
1 5

<210> 44
<211> 111
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<400> 44

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

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

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

Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

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

<210> 45

<211> 15

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<213> Mus musculus

<400> 45

Arg Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Met His
1 5 10 15

<210> 46

<211> 7

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<400> 46

Leu Ala Ser Asn Leu Glu Ser
1 5

<210> 47
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<400> 47

Gln Gln Asn Asn Glu Asp Pro Tyr Thr
1 5

<210> 48
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<400> 48

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Cys Trp Gly
100 105 110

Gln Gly Thr Thr Leu Thr Val Ser Ser
115 120

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<400> 49

Thr Ser Gly Met Gly Val Ser
1 5

<210> 50
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<212> PRT
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<400> 50

His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser Leu Lys Ser
1 5 10 15

<210> 51
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<400> 51

Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Cys
1 5 10

<210> 52
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<400> 52

Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

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

Asn Gly Asn Thr Tyr Leu Glu 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 Tyr Cys Phe Gln Gly
85 90 95

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

<210> 53
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<400> 53

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

<210> 54
<211> 7
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Lys Val Ser Asn Arg Phe Ser
1 5

<210> 55
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<400> 55

Phe Gln Gly Ser His Val Pro Trp Thr
1 5

<210> 56

<211> 116
<212> PRT
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<400> 56

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

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

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

Ala Arg Ser Gly Tyr Tyr Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu
100 105 110

Thr Val Ser Ser
115

<210> 57
<211> 5
<212> PRT
<213> Mus musculus

<400> 57

Asp Tyr Tyr Met His
1 5

<210> 58
<211> 17

<212> PRT
<213> Mus musculus

<400> 58

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

Gly

<210> 59
<211> 7
<212> PRT
<213> Mus musculus

<400> 59

Ser Gly Tyr Tyr Leu Asp Tyr
1 5

<210> 60
<211> 109
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<213> Mus musculus

<400> 60

Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Val Ser Val Gly
1 5 10 15

Glu Thr Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Tyr Ser Asn
20 25 30

Leu Ala Trp Tyr Gln Gln Lys Gln Gly Lys Ser Pro Gln Leu Leu Val
35 40 45

Tyr Ala Ala Thr Asn Leu Ala Asp Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Gln Tyr Ser Leu Lys Ile Asn Ser Leu Gln Ser
65 70 75 80

Glu Glu Phe Gly Ser Tyr Tyr Cys Gln His Phe Trp Gly Thr Pro Tyr
85 90 95

Met Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 61
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<400> 61

Arg Ala Ser Glu Asn Ile Tyr Ser Asn Leu Ala
1 5 10

<210> 62
<211> 7
<212> PRT
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<400> 62

Ala Ala Thr Asn Leu Ala Asp
1 5

<210> 63
<211> 11
<212> PRT
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<400> 63

Gln His Phe Trp Gly Thr Pro Tyr Met Tyr Thr
1 5 10

<210> 64
<211> 116
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<400> 64

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 65
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<212> PRT
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<400> 65

Asp Tyr Tyr Met His
1 5

<210> 66
<211> 17
<212> PRT
<213> Mus musculus

<400> 66

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

Gly

<210> 67
<211> 7
<212> PRT
<213> Mus musculus

<400> 67

Leu Leu Tyr Ala Met Asp Tyr
1 5

<210> 68
<211> 107
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<213> Mus musculus

<400> 68

Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
35 40 45

Tyr Phe Thr Ser Arg Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln
65 70 75 80

Glu Asp Ile Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Arg
85 90 95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Arg
100 105

<210> 69

<211> 11
<212> PRT
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<400> 69

Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 70
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<400> 70

Phe Thr Ser Arg Leu His Ser
1 5

<210> 71
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<400> 71

Gln Gln Gly Asn Thr Leu Pro Arg Thr
1 5

<210> 72
<211> 116
<212> PRT
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<400> 72

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Tyr Gly Ser Ser Tyr Arg Phe Thr Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 73
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<212> PRT
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<400> 73

Asp Tyr Tyr Met Asn
1 5

<210> 74
<211> 17
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<400> 74

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

Gly

<210> 75
<211> 7
<212> PRT
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<400> 75

Ser Ser Tyr Arg Phe Thr Tyr
1 5

<210> 76

<211> 106

<212> PRT

<213> Mus musculus

<400> 76

Gln Ile Val Leu Ile Gln Ser Pro Ala Leu Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

Tyr Trp Tyr Gln Gln Lys Pro Arg Ser Ser Pro Lys Pro Trp Ile Tyr
35 40 45

Leu Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr
85 90 95

Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 77

<211> 10

<212> PRT

<213> Mus musculus

<400> 77

Ser Ala Ser Ser Ser Val Ser Tyr Met Tyr
1 5 10

<210> 78
<211> 7
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<400> 78

Leu Thr Ser Asn Leu Ala Ser
1 5

<210> 79
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<400> 79

Gln Gln Trp Ser Ser Asn Pro Phe Thr
1 5

<210> 80
<211> 117
<212> PRT
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<400> 80

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Ala Pro Ser Gln
1 5 10 15

Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Gly Tyr
20 25 30

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

Gly Met Ile Trp Gly Asp Gly Ser Thr Asp Tyr Asn Ser Ala Leu Lys
50 55 60

Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Leu
65 70 75 80

Lys Met Asn Ser Leu Gln Thr Asp Asp Thr Ala Arg Tyr Tyr Cys Ala

85

90

95

Arg Asp Gly Tyr Asp Gly Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser
 100 105 110

Val Thr Val Ser Ser
 115

<210> 81
 <211> 5
 <212> PRT
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<400> 81

Gly Tyr Gly Val Asn
 1 5

<210> 82
 <211> 16
 <212> PRT
 <213> Mus musculus

<400> 82

Met Ile Trp Gly Asp Gly Ser Thr Asp Tyr Asn Ser Ala Leu Lys Ser
 1 5 10 15

<210> 83
 <211> 9
 <212> PRT
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<400> 83

Asp Gly Tyr Asp Gly Ala Met Asp Tyr
 1 5

<210> 84
 <211> 111
 <212> PRT
 <213> Mus musculus

<400> 84

Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
 1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Asn Tyr
 20 25 30

Gly Ile Ser Phe Met Asn Trp Phe Gln Gln Lys Pro Gly Gln Pro Pro
 35 40 45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Gln Gly Ser Gly Val Pro Ala
 50 55 60

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

Pro Met Glu Glu Asp Asp Thr Ala Met Tyr Phe Cys Gln Gln Ser Lys
 85 90 95

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

<210> 85
 <211> 15
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<400> 85

Arg Ala Ser Glu Ser Val Asp Asn Tyr Gly Ile Ser Phe Met Asn
 1 5 10 15

<210> 86
 <211> 7
 <212> PRT
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<400> 86

Ala Ala Ser Asn Gln Gly Ser
 1 5

<210> 87

<211> 9
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<400> 87

Gln Gln Ser Lys Glu Val Pro Trp Thr
1 5

<210> 88
<211> 116
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<400> 88

Glu Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
35 40 45

Ala Tyr Ile Ser Asn Gly Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val
50 55 60

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

Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys
85 90 95

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

Thr Val Ser Ser
115

<210> 89
<211> 5

<212> PRT
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<400> 89

Ser Tyr Thr Met Ser
1 5

<210> 90
<211> 17
<212> PRT
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<400> 90

Tyr Ile Ser Asn Gly Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val Lys
1 5 10 15

Gly

<210> 91
<211> 7
<212> PRT
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<400> 91

Tyr Asp Leu Gly Phe Ala Tyr
1 5

<210> 92
<211> 111
<212> PRT
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<400> 92

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro

35

40

45

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

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

Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asn Asn
 85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Asn Leu Glu Ile Ile
 100 105 110

<210> 93
 <211> 15
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<400> 93

Arg Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Met His
 1 5 10 15

<210> 94
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<400> 94

Leu Ala Ser Asn Leu Glu Ser
 1 5

<210> 95
 <211> 9
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<400> 95

Gln Gln Asn Asn Glu Asp Pro Trp Thr
 1 5

<210> 96
<211> 117
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<400> 96

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
1 5 10 15

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

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

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

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

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

Ala Gly Tyr Asp Ala Pro Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 97
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<400> 97

Ser Tyr Trp Met Gln
1 5

<210> 98
<211> 17
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<400> 98

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

Gly

<210> 99
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<400> 99

Tyr Asp Ala Pro Trp Phe Ala Tyr
1 5

<210> 100
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<400> 100

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

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

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

Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 101
<211> 15
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<400> 101

Arg Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Met His
1 5 10 15

<210> 102
<211> 7
<212> PRT
<213> Mus musculus

<400> 102

Leu Ala Ser Asn Leu Glu Ser
1 5

<210> 103
<211> 9
<212> PRT
<213> Mus musculus

<400> 103

Gln Gln Asn Asn Glu Asp Pro Trp Thr
1 5

<210> 104
<211> 124
<212> PRT
<213> Mus musculus

<400> 104

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala

1 5 10 15

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

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

Gly Met Ile His Pro Ser Asp Ser Glu Thr Arg Leu Asn Gln Lys Phe
50 55 60

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

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

Ala Arg Val Gly Asn Ser Leu Leu Arg Leu Gln Gly Ala Trp Phe Ala
100 105 110

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala
115 120

<210> 105

<211> 5

<212> PRT

<213> Mus musculus

<400> 105

Ser Tyr Trp Met Asn
1 5

<210> 106

<211> 17

<212> PRT

<213> Mus musculus

<400> 106

Met Ile His Pro Ser Asp Ser Glu Thr Arg Leu Asn Gln Lys Phe Lys
1 5 10 15

Asp

<210> 107
<211> 15
<212> PRT
<213> Mus musculus

<400> 107

Val Gly Asn Ser Leu Leu Arg Leu Gln Gly Ala Trp Phe Ala Tyr
1 5 10 15

<210> 108
<211> 111
<212> PRT
<213> Mus musculus

<400> 108

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

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

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

Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

Glu Asp Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 109
<211> 15
<212> PRT
<213> Mus musculus

<400> 109

Arg Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Met His
1 5 10 15

<210> 110
<211> 7
<212> PRT
<213> Mus musculus

<400> 110

Leu Ala Ser Asn Leu Glu Ser
1 5

<210> 111
<211> 9
<212> PRT
<213> Mus musculus

<400> 111

Gln Gln Asn Asn Glu Asp Pro Pro Thr
1 5

<210> 112
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 112

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Ser Trp Gly
100 105 110

Gln Gly Thr Thr Leu Thr Val Ser Ser
115 120

<210> 113
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 113

Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Ser
1 5 10

<210> 114
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 114

Glu Val Gln Leu Gln Glu Ser Gly Pro Gly Ile Leu Gln Pro Ser Gln
1 5 10 15

Thr Leu Ser Leu Thr Cys Ser Phe Ser Gly Phe Ser Leu Ser Thr Phe
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Ser Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Ser Asn Gln Val
65 70 75 80

Phe Leu Lys Ile Thr Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Cys Trp Gly
100 105 110

Gln Gly Thr Thr Leu Thr Val Ser Ser
115 120

<210> 115
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 115

Thr Phe Gly Met Gly Val Ser
1 5

<210> 116
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 116

Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

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

Ser Gly Asn Thr Tyr Leu Glu 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 Tyr Cys Phe Gln Gly
85 90 95

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

<210> 117

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 117

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

<210> 118

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 118

Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

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

Asn Ala Asn Thr Tyr Leu Glu 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 Tyr Cys Phe Gln Gly
85 90 95

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

<210> 119

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 119

Arg Ser Ser Gln Ser Ile Val His Ser Asn Ala Asn Thr Tyr Leu Glu
1 5 10 15

<210> 120

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 120

Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val Tyr Ser
20 25 30

Asn Gly Asn Thr Tyr Leu Glu 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 Tyr Cys Phe Gln Gly
85 90 95

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

<210> 121

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 121

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

<210> 122

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 122

Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
1 5 10 15

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

Asp Gly Asn Thr Tyr Leu Glu 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 Tyr Cys Phe Gln Gly
85 90 95

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

<210> 123

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 123

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

<210> 124

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 124

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 125

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 125

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

Gly

<210> 126
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 126

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 127
<211> 17
<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 127

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

Gly

<210> 128

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 128

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 129
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 129

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

Gly

<210> 130
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 130

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr

65		70		75		80
Leu	Gln	Leu	Ser	Ser	Leu	Thr
			85			
				Glu	Asp	Thr
					90	
						Ala
						Val
						Tyr
						Tyr
						Cys
						95

Gly	Gly	Leu	Leu	Tyr	Ala	Met	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Ser	Val
			100					105					110		

Thr	Val	Ser	Ser
			115

<210> 131
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Modified sequence

<400> 131

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

Gly

<210> 132
 <211> 116
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Modified sequence

<400> 132

Glu	Val	Gln	Leu	Gln	Glu	Ser	Gly	Ala	Glu	Leu	Val	Arg	Pro	Gly	Ala
1				5					10					15	

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 133
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 133

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

Gly

<210> 134
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 134

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

Gly Trp Ile Asp Pro Glu Asn Leu Asn Thr Ile Tyr Asp Pro Lys Phe
50 55 60

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 135
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 135

Trp Ile Asp Pro Glu Asn Leu Asn Thr Ile Tyr Asp Pro Lys Phe Gln
1 5 10 15

Gly

<210> 136
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 136

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

Gly Trp Ile Asp Pro Glu Asn Met Asn Thr Ile Tyr Asp Pro Lys Phe
50 55 60

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 137
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 137

Trp Ile Asp Pro Glu Asn Met Asn Thr Ile Tyr Asp Pro Lys Phe Gln
 1 5 10 15

Gly

<210> 138
 <211> 116
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Modified sequence

<400> 138

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
 1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
 65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
 100 105 110

Thr Val Ser Ser
 115

<210> 139
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 139

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

Gly

<210> 140
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 140

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 141
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 141

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

Gly

<210> 142
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 142

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Gly Gly Leu Leu Tyr Ala Met Asp Tyr Trp Gly Gln Gly Thr Ser Val
100 105 110

Thr Val Ser Ser
115

<210> 143
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 143

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

Gly

<210> 144
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 144

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

Leu Val Lys Leu Ser Cys Lys Ala Ser Gly Phe Asn Ile Lys Asp Tyr

20

25

30

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
 65 70 75 80

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

Tyr Gly Ser Ser Tyr Arg Phe Thr Tyr Trp Gly Gln Gly Thr Leu Val
 100 105 110

Thr Val Ser Ser
 115

<210> 145
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Modified sequence

<400> 145

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

Gly

<210> 146
 <211> 116
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Modified sequence

<400> 146

Glu Val Gln Leu Gln Glu Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
1 5 10 15

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

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

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

Gln Gly Lys Ala Ser Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Tyr Gly Ser Ser Tyr Arg Phe Thr Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 147

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 147

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

Gly

<210> 148
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 148

Gln Ile Val Leu Ile Gln Ser Pro Ala Leu Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Leu
20 25 30

Tyr Trp Tyr Gln Gln Lys Pro Arg Ser Ser Pro Lys Pro Trp Ile Tyr
35 40 45

Leu Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr
85 90 95

Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 149
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 149

Ser Ala Ser Ser Ser Val Ser Tyr Leu Tyr
1 5 10

<210> 150
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 150

Glu Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
35 40 45

Ala Tyr Ile Ser Ser Gly Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val
50 55 60

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

Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys
85 90 95

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

Thr Val Ser Ser
115

<210> 151
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 151

Tyr Ile Ser Ser Gly Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val Lys
1 5 10 15

Gly

<210> 152

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 152

Glu Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

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

Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
35 40 45

Ala Tyr Ile Ser Asn Ala Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val
50 55 60

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

Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys
85 90 95

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

Thr Val Ser Ser
115

<210> 153
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 153

Tyr Ile Ser Asn Ala Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val Lys
1 5 10 15

Gly

<210> 154
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 154

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

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

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

Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Asn Leu Glu Ile Lys
100 105 110

<210> 155
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 155

Asn Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

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

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

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

Pro Val Glu Ala Asp Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Asn Leu Glu Ile Lys
100 105 110

<210> 156
<211> 15
<212> PRT
<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 156

Arg Ala Ser Glu Ser Val Asp Ser Tyr Gly Asn Ser Phe Leu His
1 5 10 15

<210> 157

<211> 330

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 157

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

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

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 158
 <211> 329
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Modified sequence

<400> 158

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 1 5 10 15

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
 35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
 50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
 65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
 85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
 100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
 115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
 130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

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

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly
325

<210> 159

<211> 107

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 159

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
1 5 10 15

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
20 25 30

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
65 70 75 80

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

<210> 160

<211> 836

<212> PRT

<213> *Macaca fascicularis*

<400> 160

Met Ala Gly Leu Asn Cys Gly Val Thr Ile Ala Leu Leu Gly Val Leu
1 5 10 15

Leu Leu Gly Ala Ala Arg Leu Pro Arg Ala Ala Glu Ala Phe Glu Ile
20 25 30

Ala Leu Pro Arg Glu Ser Asn Ile Thr Val Leu Ile Lys Leu Gly Thr
35 40 45

Pro Thr Leu Leu Ala Lys Pro Cys Tyr Ile Val Ile Ser Lys Arg His
50 55 60

Thr Thr Met Leu Ser Ile Lys Pro Gly Glu Arg Ile Leu Phe Thr Phe
65 70 75 80

Ser Cys Gln Ser Pro Glu Asn His Phe Val Ile Glu Ile Gln Lys Asn
85 90 95

Ile Asp Cys Met Ser Gly Pro Cys Pro Phe Gly Glu Val Gln Leu Gln
100 105 110

Pro Ser Thr Ser Leu Leu Pro Thr Leu Asn Arg Thr Phe Ile Trp Asp
115 120 125

Val Lys Ala His Lys Ser Ile Gly Leu Glu Leu Gln Phe Ser Ile Pro
130 135 140

Leu Leu Arg Gln Ile Gly Pro Gly Glu Ser Cys Pro Gly Gly Val Thr
145 150 155 160

Tyr Ser Ile Ser Gly Arg Ile Asp Ala Thr Val Val Arg Ile Gly Thr
165 170 175

Phe Cys Ser Asn Gly Thr Val Ser Arg Ile Lys Met Gln Glu Gly Val
180 185 190

Lys Met Ala Leu His Leu Pro Trp Phe His Pro Arg Asn Val Ser Gly
195 200 205

Phe Ser Ile Ala Asn Arg Ser Ser Ile Lys Arg Leu Cys Ile Ile Glu
210 215 220

Ser Val Phe Glu Gly Glu Gly Ser Ala Thr Leu Met Ser Ala Asn Tyr
225 230 235 240

Pro Glu Gly Phe Pro Glu Asp Glu Leu Met Thr Trp Gln Phe Val Ile
245 250 255

Pro Ala His Leu Arg Ala Ser Val Ser Phe Leu Asn Phe Asn Leu Ser
260 265 270

Asn Cys Glu Arg Lys Glu Glu Arg Val Glu Tyr Tyr Ile Pro Gly Ser
275 280 285

Thr Thr Asn Pro Glu Val Phe Lys Leu Glu Asp Lys Gln Pro Gly Asn
290 295 300

Met Ala Gly Asn Phe Asn Leu Ser Leu Gln Gly Cys Asp Gln Asp Ala
305 310 315 320

Gln Asn Pro Gly Ile Leu Arg Leu Gln Phe Gln Val Leu Val Gln His
325 330 335

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

Arg Ala Thr Ser Leu Thr Ile Glu Pro Arg Pro Val Lys Gln Ser Arg
355 360 365

Lys Phe Val Pro Gly Cys Phe Val Cys Leu Glu Ser Arg Thr Cys Ser
370 375 380

Thr Asn Leu Thr Leu Thr Ser Gly Ser Lys His Lys Ile Ser Phe Leu
385 390 395 400

Cys Asp Asn Leu Thr Arg Leu Trp Met Asn Val Glu Lys Asn Ile Ser
405 410 415

Cys Thr Asp His Arg Tyr Cys Gln Arg Lys Ser Tyr Ser Leu Gln Val
420 425 430

Pro Ser Asp Ile Leu His Leu Pro Val Glu Leu His Asp Phe Ser Trp
435 440 445

Lys Leu Leu Val Pro Lys Asp Arg Leu Ser Leu Val Leu Val Pro Ala
450 455 460

Gln Lys Leu Gln Gln His Thr His Glu Lys Pro Cys Asn Thr Ser Phe
465 470 475 480

Ser Tyr Leu Val Ala Ser Ala Ile Pro Ser Gln Asp Leu Tyr Phe Gly
485 490 495

Ser Phe Cys Pro Gly Gly Ser Ile Glu Gln Ile Gln Val Lys Gln Asn
500 505 510

Ile Ser Val Thr Leu Arg Thr Phe Ala Pro Ser Phe Arg Gln Glu Ala
515 520 525

Ser Arg Gln Gly Leu Thr Val Ser Phe Ile Pro Tyr Phe Lys Glu Glu
530 535 540

Gly Val Phe Thr Val Thr Pro Asp Thr Lys Ser Lys Val Tyr Leu Arg
545 550 555 560

Thr Pro Asn Trp Asp Arg Gly Leu Pro Ser Leu Thr Ser Val Ser Trp
565 570 575

Asn Ile Ser Val Pro Arg Asp Gln Val Ala Cys Leu Thr Phe Phe Lys
580 585 590

Glu Arg Thr Gly Val Val Cys Gln Thr Gly Arg Ala Phe Met Ile Ile
595 600 605

Gln Glu Gln Arg Thr Arg Ala Glu Glu Ile Phe Ser Leu Asp Glu Asp
610 615 620

Ala Leu Pro Lys Pro Arg Phe His His His Ser Phe Trp Val Asn Ile
625 630 635 640

Ser Asn Cys Ser Pro Ala Ser Gly Lys Gln Leu Asp Leu Leu Phe Trp
645 650 655

Val Thr Leu Thr Pro Arg Thr Val Asp Leu Thr Val Ile Leu Ile Thr

660	665	670
Val Val Gly Gly Gly Ala Val	Leu Leu Ser Ala Leu Gly Leu Ile Ile	
675	680	685
Cys Cys Val Lys Lys Lys Lys Lys Lys Thr Asn Lys Gly Pro Ala Val		
690	695	700
Gly Val Tyr Asn Gly Asn Ile Asn Thr Glu Met Pro Arg Gln Pro Lys		
705	710	715
Lys Phe Gln Lys Gly Arg Lys Asp Asn Asp Ser His Val Tyr Ala Val		
725	730	735
Ile Glu Asp Thr Met Val Tyr Gly His Leu Leu Gln Asp Ser Gly Gly		
740	745	750
Ser Phe Leu Gln Pro Glu Val Asp Thr Tyr Arg Pro Phe Gln Gly Thr		
755	760	765
Met Gly Val Cys Pro Pro Ser Pro Pro Thr Ile Cys Ser Arg Ala Pro		
770	775	780
Thr Ala Lys Leu Ala Ala Glu Glu Leu Pro Pro Cys Ser Pro Pro Glu		
785	790	795
Ser Glu Ser Glu Pro Tyr Thr Phe Ser His Pro Asn Asn Gly Asp Ile		
805	810	815
Asn Ser Lys Glu Thr Asp Ile Pro Leu Leu Asn Thr Gln Glu Pro Val		
820	825	830
Glu Pro Ala Glu		
835		
<210> 161		
<211> 838		
<212> PRT		
<213> Macaca fascicularis		

<400> 161

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

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

Glu Ile Ala Leu Pro Arg Glu Ser Asn Ile Thr Val Leu Ile Lys Leu
35 40 45

Gly Thr Pro Thr Leu Leu Ala Lys Pro Cys Tyr Ile Val Ile Ser Lys
50 55 60

Arg His Thr Thr Met Leu Ser Ile Lys Pro Gly Glu Arg Ile Leu Phe
65 70 75 80

Thr Phe Ser Cys Gln Ser Pro Glu Asn His Phe Val Ile Glu Ile Gln
85 90 95

Lys Asn Ile Asp Cys Met Ser Gly Pro Cys Pro Phe Gly Glu Val Gln
100 105 110

Leu Gln Pro Ser Thr Ser Leu Leu Pro Thr Leu Asn Arg Thr Phe Ile
115 120 125

Trp Asp Val Lys Ala His Lys Ser Ile Gly Leu Glu Leu Gln Phe Ser
130 135 140

Ile Pro Leu Leu Arg Gln Ile Gly Pro Gly Glu Ser Cys Pro Gly Gly
145 150 155 160

Val Thr Tyr Ser Ile Ser Gly Arg Ile Asp Ala Thr Val Val Arg Ile
165 170 175

Gly Thr Phe Cys Ser Asn Gly Thr Val Ser Arg Ile Lys Met Gln Glu
180 185 190

Gly Val Lys Met Ala Leu His Leu Pro Trp Phe His Pro Arg Asn Val
 195 200 205

Ser Gly Phe Ser Ile Ala Asn Arg Ser Ser Ile Lys Arg Leu Cys Ile
 210 215 220

Ile Glu Ser Val Phe Glu Gly Glu Gly Ser Ala Thr Leu Met Ser Ala
 225 230 235 240

Asn Tyr Pro Glu Gly Phe Pro Glu Asp Glu Leu Met Thr Trp Gln Phe
 245 250 255

Val Ile Pro Ala His Leu Arg Ala Ser Val Ser Phe Leu Asn Phe Asn
 260 265 270

Leu Ser Asn Cys Glu Arg Lys Glu Glu Arg Val Glu Tyr Tyr Ile Pro
 275 280 285

Gly Ser Thr Thr Asn Pro Glu Val Phe Lys Leu Glu Asp Lys Gln Pro
 290 295 300

Gly Asn Met Ala Gly Asn Phe Asn Leu Ser Leu Gln Gly Cys Asp Gln
 305 310 315 320

Asp Ala Gln Asn Pro Gly Ile Leu Arg Leu Gln Phe Gln Val Leu Val
 325 330 335

Gln His Pro Gln Asn Glu Ser Asn Lys Ile Tyr Val Val Asp Leu Ser
 340 345 350

Asn Glu Arg Ala Thr Ser Leu Thr Ile Glu Pro Arg Pro Val Lys Gln
 355 360 365

Ser Arg Lys Phe Val Pro Gly Cys Phe Val Cys Leu Glu Ser Arg Thr
 370 375 380

Cys Ser Thr Asn Leu Thr Leu Thr Ser Gly Ser Lys His Lys Ile Ser
 385 390 395 400

Phe Leu Cys Asp Asn Leu Thr Arg Leu Trp Met Asn Val Glu Lys Asn
405 410 415

Ile Ser Cys Thr Asp His Arg Tyr Cys Gln Arg Lys Ser Tyr Ser Leu
420 425 430

Gln Val Pro Ser Asp Ile Leu His Leu Pro Val Glu Leu His Asp Phe
435 440 445

Ser Trp Lys Leu Leu Val Pro Lys Asp Arg Leu Ser Leu Val Leu Val
450 455 460

Pro Ala Gln Lys Leu Gln Gln His Thr His Glu Lys Pro Cys Asn Thr
465 470 475 480

Ser Phe Ser Tyr Leu Val Ala Ser Ala Ile Pro Ser Gln Asp Leu Tyr
485 490 495

Phe Gly Ser Phe Cys Pro Gly Gly Ser Ile Glu Gln Ile Gln Val Lys
500 505 510

Gln Asn Ile Ser Val Thr Leu Arg Thr Phe Ala Pro Ser Phe Arg Gln
515 520 525

Glu Ala Ser Arg Gln Gly Leu Thr Val Ser Phe Ile Pro Tyr Phe Lys
530 535 540

Glu Glu Gly Val Phe Thr Val Thr Pro Asp Thr Lys Ser Lys Val Tyr
545 550 555 560

Leu Arg Thr Pro Asn Trp Asp Arg Gly Leu Pro Ser Leu Thr Ser Val
565 570 575

Ser Trp Asn Ile Ser Val Pro Arg Asp Gln Val Ala Cys Leu Thr Phe
580 585 590

Phe Lys Glu Arg Thr Gly Val Val Cys Gln Thr Gly Arg Ala Phe Met
595 600 605

Ile Ile Gln Glu Gln Arg Thr Arg Ala Glu Glu Ile Phe Ser Leu Asp
610 615 620

Glu Asp Ala Leu Pro Lys Pro Arg Phe His His His Ser Phe Trp Val
625 630 635 640

Asn Ile Ser Asn Cys Ser Pro Ala Ser Gly Lys Gln Leu Asp Leu Leu
645 650 655

Phe Trp Val Thr Leu Thr Pro Arg Thr Val Asp Leu Thr Val Ile Leu
660 665 670

Ile Thr Val Val Gly Gly Gly Ala Val Leu Leu Ser Ala Leu Gly Leu
675 680 685

Ile Ile Cys Cys Val Lys Lys Lys Lys Lys Lys Thr Asn Lys Gly Pro
690 695 700

Ala Val Gly Val Tyr Asn Gly Asn Ile Asn Thr Glu Met Pro Arg Gln
705 710 715 720

Pro Lys Lys Phe Gln Lys Gly Arg Lys Asp Asn Asp Ser His Val Tyr
725 730 735

Ala Val Ile Glu Asp Thr Met Val Tyr Gly His Leu Leu Gln Asp Ser
740 745 750

Gly Gly Ser Phe Leu Gln Pro Glu Val Asp Thr Tyr Arg Pro Phe Gln
755 760 765

Gly Thr Met Gly Val Cys Pro Pro Ser Pro Pro Thr Ile Cys Ser Arg
770 775 780

Ala Pro Thr Ala Lys Leu Ala Ala Glu Glu Leu Pro Pro Cys Ser Pro
785 790 795 800

Pro Glu Ser Glu Ser Glu Pro Tyr Thr Phe Ser His Pro Asn Asn Gly

805

810

815

Asp Ile Asn Ser Lys Glu Thr Asp Ile Pro Leu Leu Asn Thr Gln Glu
 820 825 830

Pro Val Glu Pro Ala Glu
 835

<210> 162
 <211> 2526
 <212> DNA
 <213> *Macaca fascicularis*

<400> 162
 gccaccatgg agacagatac cctgctgctg tgggtgctgc tcctgtgggt ccccgatcc 60
 accggcgacg aacaaaagct catcagcgag gaggacctgt tcgagattgc cctgcccagg 120
 gaatccaaca tcaccgtgct gattaaactc ggaacccccca cactcctggc caagccctgt 180
 tatatcgtca tctccaaaag gcacacaacc atgctgtcca ttaaaccgg cgagaggatc 240
 ctgtttacct tcagctgcc aagccctgag aatcacttcg tgatcgagat tcaaaagaat 300
 atcgactgta tgagcggccc ttgtcctttt ggagaggctg agctccagcc ttccaccagc 360
 ctgctgccta cctgaatag gaccttcac tgggatgtca aggcccataa gagcatcgga 420
 ctggagctgc agttttccat cccctcctg aggcagatcg gaccggaga aagctgcctt 480
 ggaggcgtga cctacagcat ctccggcaga atcgacgcca ccgtcgtcag gatcggcacc 540
 ttctgcagca acggcacagt gtccaggatc aaaatgcagg agggcgtgaa aatggccctg 600
 cacctgcctt ggttccacc tagaaacgtg agcggattca gcatcgctaa taggtcctcc 660
 atcaaaaggc tgtgcattat tgagagcgtg ttcgagggcg agggcagcgc taccctgatg 720
 tccgctaact atcccgaggg ctttcccgag gatgagctga tgacatggca gtttgtgatc 780
 cccgctcatc tgagagccag cgtctccttt ctgaatttca atctctocaa ctgcgaaagg 840
 aaggaggaaa ggggtgaata ttacatcccc ggcagcacca caaacccga ggtgttcaag 900
 ctggaggaca aacagcccgg caatatggcc ggcaacttta acctgagcct gcagggatgt 960
 gaccaggacg ccagaatcc cggaatcctc agactgcagt ttcaagtgt ggtgcagcat 1020

ccccaaaacg aaagcaataa gatctacgtg gtggacctgt ccaatgagag ggccaccagc	1080
ctcaccattg aaccagacc cgtcaagcag agcaggaagt tcgtgcctgg ctgctttgtg	1140
tgtctcgagt ccaggacctg cagcaccaat ctgacctga cctccggcag caagcacaag	1200
atctccttcc tgtgcgataa cctcacaagg ctctggatga acgtcgagaa gaacatttcc	1260
tgcacagacc atagatactg ccagaggaag agctattccc tgcaggtgcc tagcgacatc	1320
ctccacctgc ccgtggaact gcatgacttt tcctggaagc tgctggtccc taaagataga	1380
ctgagcctgg tgctggtgcc cgctcaaaag ctgcagcagc ataccacga gaagccctgt	1440
aataccagct tctcctacct ggtggccagc gccatccctt cccaagatct gtacttcggc	1500
agcttttgtc ccggaggctc catcgagcaa atccaggtca agcagaacat cagcgtgaca	1560
ctgagaacct tcgcccctag cttcagacag gaagccagca ggcagggcct gaccgtgagc	1620
ttcattccct acttcaagga agagggcgtg tttaccgtca ccccgacac aaagagcaag	1680
gtctacctga ggacccctaa ctgggacagg ggctgccct ccctcacaag cgtgagctgg	1740
aacatttcog tccccaggga tcaggtggcc tgctgacct tcttcaagga aagaaccggc	1800
gtggtgtgcc agaccggcag agcctttatg attatccaag aacagaggac cagggccgaa	1860
gagatcttta gcctggacga ggatgccctg cccaagccca gatttcacca ccacagcttt	1920
tgggtcaata tctccaactg ttcccctgcc tccggaaagc aactggacct cctgttttgg	1980
gtcaccctga cccctagaac agtggacctc accgtgatcc tgattaccgt cgtgggagga	2040
ggcgtgtcc tgctcagcgc tctgggcctg atcatctgct gtgtgaaaaa gaagaagaag	2100
aaaaccaaca agggccctgc cgtgggcgtg tataacggaa acatcaacac cgaaatgcc	2160
agacagccca agaagtttca gaagggcagg aaagacaatg acagccacgt ctacgccgtc	2220
attgaggata ccatggtgta cggccacctg ctccaggact ccggcggatc ctttctccag	2280
cccgaggctg atacatacag gcccttccag ggaacatgg gagtgtgtcc tccttcccc	2340
cccaccattt gtagcagggc ccctacagct aagctggctg ccgaagagct gcctccctgc	2400
tcccctcctg aaagcgagtc cgaaccctac accttagcc accccaataa cggcgacatc	2460
aactccaaag agaccgacat cccctcctc aacaccagg agcctgtoga gcccgccgaa	2520
tgatga	2526

<210> 163
 <211> 120
 <212> PRT
 <213> Mus musculus

<400> 163

Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Lys Pro Gly Ala
 1 5 10 15

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

Tyr Met Tyr Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45

Gly Glu Ile Asn Pro Ser His Gly Gly Thr Asn Phe Asn Glu Lys Phe
 50 55 60

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

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

Thr Arg Gly Gly Asn Tyr Pro Tyr Phe Ala Met Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Ser Val Thr Val Ser Ser
 115 120

<210> 164
 <211> 107
 <212> PRT
 <213> Mus musculus

<400> 164

Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
 1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
35 40 45

Tyr Tyr Thr Ser Arg Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln
65 70 75 80

Glu Asp Ile Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Trp
85 90 95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 165

<211> 120

<212> PRT

<213> Mus musculus

<400> 165

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Ser Tyr
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Thr Ile Ser Ser Gly Gly Ser Tyr Lys Tyr Tyr Val Asp Ser Val
50 55 60

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

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

Ala Arg His Pro Asp Tyr Asp Gly Val Trp Phe Ala Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 166
<211> 106
<212> PRT
<213> Mus musculus

<400> 166

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Met Ser Cys Ser Val Ser Ser Ser Val Phe Tyr Leu
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Trp Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro Glu
65 70 75 80

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Trp Asn Ser Asn Pro Pro Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 167
<211> 120
<212> PRT

<213> Mus musculus

<400> 167

Gln Val Thr Leu Arg Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Ser Val Gly Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala Asp Ile Trp Trp Asp Asp Lys Lys Asp Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Lys Val Thr Asn Met Asp Pro Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Ser Met Ile Thr Asn Trp Tyr Phe Asp Val Trp Gly Ala
100 105 110

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 168

<211> 106

<212> PRT

<213> Mus musculus

<400> 168

Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Cys Gln Leu Ser Val Gly Tyr Met
20 25 30

His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
35 40 45

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Asp
65 70 75 80

Asp Phe Ala Thr Tyr Tyr Cys Phe Gln Gly Ser Gly Tyr Pro Phe Thr
85 90 95

Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 169
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 169

Gln Val Thr Leu Arg Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr

85

90

95

Cys Ala Arg Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Ser Trp Gly
 100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 170

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 170

Gln Val Thr Leu Arg Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
 1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Ser
 20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
 65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

Cys Ala Arg Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Ser Trp Gly
 100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 171
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 171

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
20 25 30

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

Pro Gln 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 Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

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

<210> 172
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 172

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser

1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Asn Ile Lys Asp Tyr
20 25 30

Tyr Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

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

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65 70 75 80

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

Tyr Gly Ser Ser Tyr Arg Phe Thr Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 173
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 173

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Asn Ile Lys Asp Tyr
20 25 30

Tyr Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

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

Gln Gly Arg Ala Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65 70 75 80

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

Tyr Gly Ser Ser Tyr Arg Phe Thr Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110

Thr Val Ser Ser
115

<210> 174
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 174

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Val Ser Tyr Leu
20 25 30

Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Pro Trp Ile Tyr
35 40 45

Leu Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro Glu
65 70 75 80

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 175
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 175

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Val Ser Tyr Leu
20 25 30

Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Pro Trp Ile Tyr
35 40 45

Leu Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Glu Pro Glu
65 70 75 80

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 176
<211> 106
<212> PRT
<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 176

Glu Ile Val Leu Ile Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Val Ser Tyr Leu
20 25 30

Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Pro Trp Ile Tyr
35 40 45

Leu Thr Ser Asn Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro Glu
65 70 75 80

Asp Phe Ala Val Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Phe Thr
85 90 95

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 177

<211> 116

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 177

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Thr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Arg Leu Glu Trp Val
35 40 45

Ala Tyr Ile Ser Ser Gly Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val
50 55 60

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

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

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

Thr Val Ser Ser
115

<210> 178
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 178

Glu Val Gln Leu Gln Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Thr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Arg Leu Glu Trp Val
35 40 45

Ala Tyr Ile Ser Ser Gly Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val
50 55 60

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

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

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

Thr Val Ser Ser
115

<210> 179
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 179

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Thr Met Ser Trp Val Arg Gln Ala Pro Glu Lys Arg Leu Glu Trp Val
35 40 45

Ala Tyr Ile Ser Ser Gly Gly Gly Ser Thr Tyr Tyr Pro Asp Thr Val
50 55 60

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

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

Ala Arg Tyr Asp Leu Gly Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val

100

105

110

Thr Val Ser Ser
115

<210> 180
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 180

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
35 40 45

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

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

Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 181
<211> 111
<212> PRT
<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 181

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Glu Ser Val Asp Ser Tyr
20 25 30

Gly Asn Ser Phe Met His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
35 40 45

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

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

Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Asn Asn
85 90 95

Glu Asp Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 182

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 182

Gln Val Thr Leu Arg Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Phe
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Ala Leu Glu

35

40

45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
 50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
 65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
 85 90 95

Cys Ala Arg Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Ser Trp Gly
 100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 183

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 183

Thr Phe Gly Met Gly Val Ser
 1 5

<210> 184

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 184

Gln Val Thr Leu Arg Glu Ser Gly Pro Ala Leu Val Lys Pro Thr Gln
 1 5 10 15

Thr Leu Thr Leu Thr Cys Thr Phe Ser Gly Phe Ser Leu Ser Thr Phe
20 25 30

Gly Met Gly Val Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45

Trp Leu Ala His Ile Tyr Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

Leu Lys Ser Arg Leu Thr Ile Ser Lys Asp Thr Ser Lys Asn Gln Val
65 70 75 80

Val Leu Thr Met Thr Asn Met Asp Pro Val Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Arg Ser Gly Ser Tyr Tyr Gly Ser Ser Leu Asp Ser Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 185
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Modified sequence

<400> 185

Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val Tyr Ser
20 25 30

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

Pro Gln 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	Val	Gly	Val	Tyr	Tyr	Cys	Phe	Gln	Gly				
			85					90						95					
Ser	His	Val	Pro	Trp	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys				
			100					105					110						

<210> 186
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Modified sequence

<400> 186

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

<210> 187
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Modified sequence

<400> 187

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1			5					10						15	

Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Asn	Ile	Val	His	Ser
			20					25					30		

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

Pro Gln 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 Val Gly Val Tyr Tyr Cys Phe Gln Gly
85 90 95

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

<210> 188

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Modified sequence

<400> 188

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