

2282743
SEQUENCE LISTING

<110> Max-Planck-Gesellschaft zur Förderung der Wissenschaften ev

<120> Biomarker for the prediction of responsiveness to an anti-Tumour
Necrosis Factor alpha (TNF) treatment

<130> N3102 PCT BLN

<150> EP 07 11 9810.5

<151> 2007-10-31

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<170> PatentIn version 3.4

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Arg Asn Glu Phe Asn Leu Glu Ser Lys Ser Thr Ile Gly Val Glu Phe
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35

40

45

Ala Thr Arg Ser Ile Gln Val Asp Gly Lys Thr Ile Lys Ala Gln Ile
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Trp Asp Thr Ala Gly Gln Glu Arg Tyr Arg Ala Ile Thr Ser Ala Tyr
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Tyr Arg Gly Ala Val Gly Ala Leu Leu Val Tyr Asp Ile Ala Lys His
85 90 95

Leu Thr Tyr Glu Asn Val Glu Arg Trp Leu Lys Glu Leu Arg Asp His
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Ala Asp Ser Asn Ile Val Ile Met Leu Val Gly Asn Lys Ser Asp Leu
115 120 125

Arg His Leu Arg Ala Val Pro Thr Asp Glu Ala Arg Ala Phe Ala Glu
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Lys Asn Asn Leu Ser Phe Ile Glu Thr Ser Ala Leu Asp Ser Thr Asn
145 150 155 160

Val Glu Glu Ala Phe Lys Asn Ile Leu Thr Glu Ile Tyr Arg Ile Val
165 170 175

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

Arg Ala Ile Ser His Glu His Ser Pro Ser Asp Leu Glu Ala His Phe
115 120 125

Val Pro Leu Val Lys Arg Leu Ala Gly Gly Asp Trp Phe Thr Ser Arg
130 135 140

Thr Ser Ala Cys Gly Leu Phe Ser Val Cys Tyr Pro Arg Val Ser Ser
145 150 155 160

Ala Val Lys Ala Glu Leu Arg Gln Tyr Phe Arg Asn Leu Cys Ser Asp
165 170 175

Asp Thr Pro Met Val Arg Arg Ala Ala Ala Ser Lys Leu Gly Glu Phe
180 185 190

Ala Lys Val Leu Glu Leu Asp Asn Val Lys Ser Glu Ile Ile Pro Met
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Phe Ser Asn Leu Ala Ser Asp Glu Gln Asp Ser Val Arg Leu Leu Ala
210 215 220

Val Glu Ala Cys Val Asn Ile Ala Gln Leu Leu Pro Gln Glu Asp Leu
225 230 235 240

Glu Ala Leu Val Met Pro Thr Leu Arg Gln Ala Ala Glu Asp Lys Ser
245 250 255

Trp Arg Val Arg Tyr Met Val Ala Asp Lys Phe Thr Glu Leu Gln Lys
260 265 270

Ala Val Gly Pro Glu Ile Thr Lys Thr Asp Leu Val Pro Ala Phe Gln
275 280 285

Asn Leu Met Lys Asp Cys Glu Ala Glu Val Arg Ala Ala Ala Ser His
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Lys Val Lys Glu Phe Cys Glu Asn Leu Ser Ala Asp Cys Arg Glu Asn
305 310 315 320

Val Ile Met Ser Gln Ile Leu Pro Cys Ile Lys Glu Leu Val Ser Asp
325 330 335

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Ala Asn Gln His Val Lys Ser Ala Leu Ala Ser Val Ile Met Gly Leu
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Ser Pro Ile Leu Gly Lys Asp Asn Thr Ile Glu His Leu Leu Pro Leu
355 360 365

Phe Leu Ala Gln Leu Lys Asp Glu Cys Pro Glu Val Arg Leu Asn Ile
370 375 380

Ile Ser Asn Leu Asp Cys Val Asn Glu Val Ile Gly Ile Arg Gln Leu
385 390 395 400

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Trp Arg Val Arg Leu Ala Ile Ile Glu Tyr Met Pro Leu Leu Ala Gly
420 425 430

Gln Leu Gly Val Glu Phe Phe Asp Glu Lys Leu Asn Ser Leu Cys Met
435 440 445

Ala Trp Leu Val Asp His Val Tyr Ala Ile Arg Glu Ala Ala Thr Ser
450 455 460

Asn Leu Lys Lys Leu Val Glu Lys Phe Gly Lys Glu Trp Ala His Ala
465 470 475 480

Thr Ile Ile Pro Lys Val Leu Ala Met Ser Gly Asp Pro Asn Tyr Leu
485 490 495

His Arg Met Thr Thr Leu Phe Cys Ile Asn Val Leu Ser Glu Val Cys
500 505 510

Gly Gln Asp Ile Thr Thr Lys His Met Leu Pro Thr Val Leu Arg Met
515 520 525

Ala Gly Asp Pro Val Ala Asn Val Arg Phe Asn Val Ala Lys Ser Leu
530 535 540

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

Cys Thr Ala Cys Cys Leu Phe Ser Val Cys Tyr Pro Arg Val Ser Ser
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Asp Thr Pro Met Val Arg Arg Ala Ala Ala Ser Lys Leu Gly Glu Phe
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115 120 125

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Glu Ala Leu Val Met Pro Thr Leu Arg Gln Ala Ala Glu Asp Lys Ser
165 170 175

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225 230 235 240

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245 250 255

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Ala Asn Gln His Val Lys Ser Ala Leu Ala Ser Val Ile Met Gly Leu
260 265 270

Ser Pro Ile Leu Gly Lys Asp Asn Thr Ile Glu His Leu Leu Pro Leu
275 280 285

Phe Leu Ala Gln Leu Lys Asp Glu Cys Pro Glu Val Arg Leu Asn Ile
290 295 300

Ile Ser Asn Leu Asp Cys Val Asn Glu Val Ile Gly Ile Arg Gln Leu
305 310 315 320

Ser Gln Ser Leu Leu Pro Ala Ile Val Glu Leu Ala Glu Asp Ala Lys
325 330 335

Trp Arg Val Arg Leu Ala Ile Ile Glu Tyr Met Pro Leu Leu Ala Gly
340 345 350

Gln Leu Gly Val Glu Phe Phe Asp Glu Lys Leu Asn Ser Leu Cys Met
355 360 365

Ala Trp Leu Val Asp His Val Tyr Ala Ile Arg Glu Ala Ala Thr Ser
370 375 380

Asn Leu Lys Lys Leu Val Glu Lys Phe Gly Lys Glu Trp Ala His Ala
385 390 395 400

Thr Ile Ile Pro Lys Val Leu Ala Met Ser Gly Asp Pro Asn Tyr Leu
405 410 415

His Arg Met Thr Thr Leu Phe Cys Ile Asn Val Leu Ser Glu Val Cys
420 425 430

Gly Gln Asp Ile Thr Thr Lys His Met Leu Pro Thr Val Leu Arg Met
435 440 445

Ala Gly Asp Pro Val Ala Asn Val Arg Phe Asn Val Ala Lys Ser Leu
450 455 460

Gln Lys Ile Gly Pro Ile Leu Asp Asn Ser Thr Leu Gln Ser Glu Val
465 470 475 480

Lys Pro Ile Leu Glu Lys Leu Thr Gln Asp Gln Asp Val Asp Val Lys
485 490 495

Tyr Phe Ala Gln Glu Ala Leu Thr Val Leu Ser Leu Ala
500 505

<210> 62
<211> 876
<212> PRT

<213> Human

<400> 62

Met Glu Leu Ile Thr Ile Leu Glu Lys Thr Val Ser Pro Asp Arg Leu
 1 5 10 15

Glu Leu Glu Ala Ala Gln Lys Phe Leu Glu Arg Ala Ala Val Glu Asn
 20 25 30

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

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

Leu Thr Ser Lys Asp Pro Asp Ile Lys Ala Gln Tyr Gln Gln Arg Trp
 65 70 75 80

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

Gln Thr Leu Gly Thr Glu Thr Tyr Arg Pro Ser Ser Ala Ser Gln Cys
 100 105 110

Val Ala Gly Ile Ala Cys Ala Glu Ile Pro Val Asn Gln Trp Pro Glu
 115 120 125

Leu Ile Pro Gln Leu Val Ala Asn Val Thr Asn Pro Asn Ser Thr Glu
 130 135 140

His Met Lys Glu Ser Thr Leu Glu Ala Ile Gly Tyr Ile Cys Gln Asp
 145 150 155 160

Ile Asp Pro Glu Gln Leu Gln Asp Lys Ser Asn Glu Ile Leu Thr Ala
 165 170 175

Ile Ile Gln Gly Met Arg Lys Glu Glu Pro Ser Asn Asn Val Lys Leu
 180 185 190

Ala Ala Thr Asn Ala Leu Leu Asn Ser Leu Glu Phe Thr Lys Ala Asn
 195 200 205

Phe Asp Lys Glu Ser Glu Arg His Phe Ile Met Gln Val Val Cys Glu
 210 215 220

Ala Thr Gln Cys Pro Asp Thr Arg Val Arg Val Ala Ala Leu Gln Asn
 225 230 235 240

Leu Val Lys Ile Met Ser Leu Tyr Tyr Gln Tyr Met Glu Thr Tyr Met
 245 250 255

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Gly Pro Ala Leu Phe Ala Ile Thr Ile Glu Ala Met Lys Ser Asp Ile
260 265 270

Asp Glu Val Ala Leu Gln Gly Ile Glu Phe Trp Ser Asn Val Cys Asp
275 280 285

Glu Glu Met Asp Leu Ala Ile Glu Ala Ser Glu Ala Ala Glu Gln Gly
290 295 300

Arg Pro Pro Glu His Thr Ser Lys Phe Tyr Ala Lys Gly Ala Leu Gln
305 310 315 320

Tyr Leu Val Pro Ile Leu Thr Gln Thr Leu Thr Lys Gln Asp Glu Asn
325 330 335

Asp Asp Asp Asp Trp Asn Pro Cys Lys Ala Ala Gly Val Cys Leu
340 345 350

Met Leu Leu Ala Thr Cys Cys Glu Asp Asp Ile Val Pro His Val Leu
355 360 365

Pro Phe Ile Lys Glu His Ile Lys Asn Pro Asp Trp Arg Tyr Arg Asp
370 375 380

Ala Ala Val Met Ala Phe Gly Cys Ile Leu Glu Gly Pro Glu Pro Ser
385 390 395 400

Gln Leu Lys Pro Leu Val Ile Gln Ala Met Pro Thr Leu Ile Glu Leu
405 410 415

Met Lys Asp Pro Ser Val Val Val Arg Asp Thr Ala Ala Trp Thr Val
420 425 430

Gly Arg Ile Cys Glu Leu Leu Pro Glu Ala Ala Ile Asn Asp Val Tyr
435 440 445

Leu Ala Pro Leu Leu Gln Cys Leu Ile Glu Gly Leu Ser Ala Glu Pro
450 455 460

Arg Val Ala Ser Asn Val Cys Trp Ala Phe Ser Ser Leu Ala Glu Ala
465 470 475 480

Ala Tyr Glu Ala Ala Asp Val Ala Asp Asp Gln Glu Glu Pro Ala Thr
485 490 495

Tyr Cys Leu Ser Ser Ser Phe Glu Leu Ile Val Gln Lys Leu Leu Glu
500 505 510

Thr Thr Asp Arg Pro Asp Gly His Gln Asn Asn Leu Arg Ser Ser Ala
515 520 525

2282743

Tyr Glu Ser Leu Met Glu Ile Val Lys Asn Ser Ala Lys Asp Cys Tyr
 530 535 540

Pro Ala Val Gln Lys Thr Thr Leu Val Ile Met Glu Arg Leu Gln Gln
 545 550 555 560

Val Leu Gln Met Glu Ser His Ile Gln Ser Thr Ser Asp Arg Ile Gln
 565 570 575

Phe Asn Asp Leu Gln Ser Leu Leu Cys Ala Thr Leu Gln Asn Val Leu
 580 585 590

Arg Lys Val Gln His Gln Asp Ala Leu Gln Ile Ser Asp Val Val Met
 595 600 605

Ala Ser Leu Leu Arg Met Phe Gln Ser Thr Ala Gly Ser Gly Gly Val
 610 615 620

Gln Glu Asp Ala Leu Met Ala Val Ser Thr Leu Val Glu Val Leu Gly
 625 630 635 640

Gly Glu Phe Leu Lys Tyr Met Glu Ala Phe Lys Pro Phe Leu Gly Ile
 645 650 655

Gly Leu Lys Asn Tyr Ala Glu Tyr Gln Val Cys Leu Ala Ala Val Gly
 660 665 670

Leu Val Gly Asp Leu Cys Arg Ala Leu Gln Ser Asn Ile Ile Pro Phe
 675 680 685

Cys Asp Glu Val Met Gln Leu Leu Leu Glu Asn Leu Gly Asn Glu Asn
 690 695 700

Val His Arg Ser Val Lys Pro Gln Ile Leu Ser Val Phe Gly Asp Ile
 705 710 715 720

Ala Leu Ala Ile Gly Gly Glu Phe Lys Lys Tyr Leu Glu Val Val Leu
 725 730 735

Asn Thr Leu Gln Gln Ala Ser Gln Ala Gln Val Asp Lys Ser Asp Tyr
 740 745 750

Asp Met Val Asp Tyr Leu Asn Glu Leu Arg Glu Ser Cys Leu Glu Ala
 755 760 765

Tyr Thr Gly Ile Val Gln Gly Leu Lys Gly Asp Gln Glu Asn Val His
 770 775 780

Pro Asp Val Met Leu Val Gln Pro Arg Val Glu Phe Ile Leu Ser Phe
 785 790 795 800

Ile Asp His Ile Ala Gly Asp Glu Asp His Thr Asp Gly Val Val Ala
805 810 815

Cys Ala Ala Gly Leu Ile Gly Asp Leu Cys Thr Ala Phe Gly Lys Asp
820 825 830

Val Leu Lys Leu Val Glu Ala Arg Pro Met Ile His Glu Leu Leu Thr
835 840 845

Glu Gly Arg Arg Ser Lys Thr Asn Lys Ala Lys Thr Leu Ala Thr Trp
850 855 860

Ala Thr Lys Glu Leu Arg Lys Leu Lys Asn Gln Ala
865 870 875

<210> 64
<211> 789
<212> PRT
<213> Human

<400> 64

Met Gly Thr Lys Met Ala Asp Leu Asp Ser Pro Pro Lys Leu Ser Gly
1 5 10 15

Val Gln Gln Pro Ser Glu Gly Val Gly Gly Gly Arg Cys Ser Glu Ile
20 25 30

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

Val Tyr Glu Arg Leu Cys Gly Glu Glu Lys Val Val Glu Arg Glu Leu
50 55 60

Asp Ala Leu Leu Glu Gln Gln Asn Thr Ile Glu Ser Lys Met Val Thr
65 70 75 80

Leu His Arg Met Gly Pro Asn Leu Gln Leu Ile Glu Gly Asp Ala Lys
85 90 95

Gln Leu Ala Gly Met Ile Thr Phe Thr Cys Asn Leu Ala Glu Asn Val
100 105 110

Ser Ser Lys Val Arg Gln Leu Asp Leu Ala Lys Asn Arg Leu Tyr Gln
115 120 125

Ala Ile Gln Arg Ala Asp Asp Ile Leu Asp Leu Lys Phe Cys Met Asp
130 135 140

Gly Val Gln Thr Ala Leu Arg Ser Glu Asp Tyr Glu Gln Ala Ala Ala
145 150 155 160

His Thr His Arg Tyr Leu Cys Leu Asp Lys Ser Val Ile Glu Leu Ser
Seite 65

Arg Gln Gly Lys Glu Gly Ser Met Ile Asp Ala Asn Leu Lys Leu Leu
180 185 190

Gln Glu Ala Glu Gln Arg Leu Lys Ala Ile Val Ala Glu Lys Phe Ala
195 200 205

Ile Ala Thr Lys Glu Gly Asp Leu Pro Gln Val Glu Arg Phe Phe Lys
210 215 220

Ile Phe Pro Leu Leu Gly Leu His Glu Glu Gly Leu Arg Lys Phe Ser
225 230 235 240

Glu Tyr Leu Cys Lys Gln Val Ala Ser Lys Ala Glu Glu Asn Leu Leu
245 250 255

Met Val Leu Gly Thr Asp Met Ser Asp Arg Arg Ala Ala Val Ile Phe
260 265 270

Ala Asp Thr Leu Thr Leu Leu Phe Glu Gly Ile Ala Arg Ile Val Glu
275 280 285

Thr His Gln Pro Ile Val Glu Thr Tyr Tyr Gly Pro Gly Arg Leu Tyr
290 295 300

Thr Leu Ile Lys Tyr Leu Gln Val Glu Cys Asp Arg Gln Val Glu Lys
305 310 315 320

Val Val Asp Lys Phe Ile Lys Gln Arg Asp Tyr His Gln Gln Phe Arg
325 330 335

His Val Gln Asn Asn Leu Met Arg Asn Ser Thr Thr Glu Lys Ile Glu
340 345 350

Pro Arg Glu Leu Asp Pro Ile Leu Thr Glu Val Thr Leu Met Asn Ala
355 360 365

Arg Ser Glu Leu Tyr Leu Arg Phe Leu Lys Lys Arg Ile Ser Ser Asp
370 375 380

Phe Glu Val Gly Asp Ser Met Ala Ser Glu Glu Val Lys Gln Glu His
385 390 395 400

Gln Lys Cys Leu Asp Lys Leu Leu Asn Asn Cys Leu Leu Ser Cys Thr
405 410 415

Met Gln Glu Leu Ile Gly Leu Tyr Val Thr Met Glu Glu Tyr Phe Met
420 425 430

Arg Glu Thr Val Asn Lys Ala Val Ala Leu Asp Thr Tyr Glu Lys Gly

435

440

445

Gln Leu Thr Ser Ser Met Val Asp Asp Val Phe Tyr Ile Val Lys Lys
 450 455 460

Cys Ile Gly Arg Ala Leu Ser Ser Ser Ser Ile Asp Cys Leu Cys Ala
 465 470 475 480

Met Ile Asn Leu Ala Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val
 485 490 495

Leu Cys Asn Lys Leu Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp
 500 505 510

Ile Gln Arg Gly Val Thr Ser Ala Val Asn Ile Met His Ser Ser Leu
 515 520 525

Gln Gln Gly Lys Phe Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala
 530 535 540

Lys Met Ser Phe Leu Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu
 545 550 555 560

Asn Ile Ser Thr Leu Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu
 565 570 575

Phe Ser Gln Gly Ile Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser
 580 585 590

Cys Leu Ser Asp Leu Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu
 595 600 605

Gln Glu Gly Leu Thr Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val
 610 615 620

Gln Pro Trp Ile Asn Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu
 625 630 635 640

Glu Glu Phe Asn Asp Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe
 645 650 655

Ile Leu Asn Leu Glu Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser
 660 665 670

Pro Val Ile Tyr Asp Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala
 675 680 685

Val Glu Leu Glu Lys Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly
 690 695 700

Gly Leu Gln Phe Asp Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr
 705 710 715 720 725 730

705 710 2282743 715 720

Thr Val Thr Thr Trp Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln
725 730 735

Met Ala Thr Ile Leu Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr
740 745 750

Trp Gly Pro Asn Ser Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu
755 760 765

Val Arg Gln Val Leu Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile
770 775 780

Lys Arg Leu Arg Leu
785

<210> 65
<211> 785
<212> PRT
<213> Human

<400> 65

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

Ser Glu Gly Val Gly Gly Gly Arg Cys Ser Glu Ile Ser Ala Glu Leu
20 25 30

Ile Arg Ser Leu Thr Glu Leu Gln Glu Leu Glu Ala Val Tyr Glu Arg
35 40 45

Leu Cys Gly Glu Glu Lys Val Val Glu Arg Glu Leu Asp Ala Leu Leu
50 55 60

Glu Gln Gln Asn Thr Ile Glu Ser Lys Met Val Thr Leu His Arg Met
65 70 75 80

Gly Pro Asn Leu Gln Leu Ile Glu Gly Asp Ala Lys Gln Leu Ala Gly
85 90 95

Met Ile Thr Phe Thr Cys Asn Leu Ala Glu Asn Val Ser Ser Lys Val
100 105 110

Arg Gln Leu Asp Leu Ala Lys Asn Arg Leu Tyr Gln Ala Ile Gln Arg
115 120 125

Ala Asp Asp Ile Leu Asp Leu Lys Phe Cys Met Asp Gly Val Gln Thr
130 135 140

Ala Leu Arg Ser Glu Asp Tyr Glu Gln Ala Ala Ala His Thr His Arg
145 150 155 160

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Tyr Leu Cys Leu Asp Lys Ser Val Ile Glu Leu Ser Arg Gln Gly Lys
 165 170 175
 Glu Gly Ser Met Ile Asp Ala Asn Leu Lys Leu Leu Gln Glu Ala Glu
 180 185 190
 Gln Arg Leu Lys Ala Ile Val Ala Glu Lys Phe Ala Ile Ala Thr Lys
 195 200 205
 Glu Gly Asp Leu Pro Gln Val Glu Arg Phe Phe Lys Ile Phe Pro Leu
 210 215 220
 Leu Gly Leu His Glu Glu Gly Leu Arg Lys Phe Ser Glu Tyr Leu Cys
 225 230 235 240
 Lys Gln Val Ala Ser Lys Ala Glu Glu Asn Leu Leu Met Val Leu Gly
 245 250 255
 Thr Asp Met Ser Asp Arg Arg Ala Ala Val Ile Phe Ala Asp Thr Leu
 260 265 270
 Thr Leu Leu Phe Glu Gly Ile Ala Arg Ile Val Glu Thr His Gln Pro
 275 280 285
 Ile Val Glu Thr Tyr Tyr Gly Pro Gly Arg Leu Tyr Thr Leu Ile Lys
 290 295 300
 Tyr Leu Gln Val Glu Cys Asp Arg Gln Val Glu Lys Val Val Asp Lys
 305 310 315 320
 Phe Ile Lys Gln Arg Asp Tyr His Gln Gln Phe Arg His Val Gln Asn
 325 330 335
 Asn Leu Met Arg Asn Ser Thr Thr Glu Lys Ile Glu Pro Arg Glu Leu
 340 345 350
 Asp Pro Ile Leu Thr Glu Val Thr Leu Met Asn Ala Arg Ser Glu Leu
 355 360 365
 Tyr Leu Arg Phe Leu Lys Lys Arg Ile Ser Ser Asp Phe Glu Val Gly
 370 375 380
 Asp Ser Met Ala Ser Glu Glu Val Lys Gln Glu His Gln Lys Cys Leu
 385 390 395 400
 Asp Lys Leu Leu Asn Asn Cys Leu Leu Ser Cys Thr Met Gln Glu Leu
 405 410 415
 Ile Gly Leu Tyr Val Thr Met Glu Glu Tyr Phe Met Arg Glu Thr Val
 420 425 430

Asn Lys Ala Val Ala Leu Asp Thr Tyr Glu Lys Gly Gln Leu Thr Ser
 435 440 445
 Ser Met Val Asp Asp Val Phe Tyr Ile Val Lys Lys Cys Ile Gly Arg
 450 455 460
 Ala Leu Ser Ser Ser Ser Ile Asp Cys Leu Cys Ala Met Ile Asn Leu
 465 470 475 480
 Ala Thr Thr Glu Leu Glu Ser Asp Phe Arg Asp Val Leu Cys Asn Lys
 485 490 495
 Leu Arg Met Gly Phe Pro Ala Thr Thr Phe Gln Asp Ile Gln Arg Gly
 500 505 510
 Val Thr Ser Ala Val Asn Ile Met His Ser Ser Leu Gln Gln Gly Lys
 515 520 525
 Phe Asp Thr Lys Gly Ile Glu Ser Thr Asp Glu Ala Lys Met Ser Phe
 530 535 540
 Leu Val Thr Leu Asn Asn Val Glu Val Cys Ser Glu Asn Ile Ser Thr
 545 550 555 560
 Leu Lys Lys Thr Leu Glu Ser Asp Cys Thr Lys Leu Phe Ser Gln Gly
 565 570 575
 Ile Gly Gly Glu Gln Ala Gln Ala Lys Phe Asp Ser Cys Leu Ser Asp
 580 585 590
 Leu Ala Ala Val Ser Asn Lys Phe Arg Asp Leu Leu Gln Glu Gly Leu
 595 600 605
 Thr Glu Leu Asn Ser Thr Ala Ile Lys Pro Gln Val Gln Pro Trp Ile
 610 615 620
 Asn Ser Phe Phe Ser Val Ser His Asn Ile Glu Glu Glu Glu Phe Asn
 625 630 635 640
 Asp Tyr Glu Ala Asn Asp Pro Trp Val Gln Gln Phe Ile Leu Asn Leu
 645 650 655
 Glu Gln Gln Met Ala Glu Phe Lys Ala Ser Leu Ser Pro Val Ile Tyr
 660 665 670
 Asp Ser Leu Thr Gly Leu Met Thr Ser Leu Val Ala Val Glu Leu Glu
 675 680 685
 Lys Val Val Leu Lys Ser Thr Phe Asn Arg Leu Gly Gly Leu Gln Phe
 690 695 700

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Asp Lys Glu Leu Arg Ser Leu Ile Ala Tyr Leu Thr Thr Val Thr Thr
705 710 715 720

Trp Thr Ile Arg Asp Lys Phe Ala Arg Leu Ser Gln Met Ala Thr Ile
725 730 735

Leu Asn Leu Glu Arg Val Thr Glu Ile Leu Asp Tyr Trp Gly Pro Asn
740 745 750

Ser Gly Pro Leu Thr Trp Arg Leu Thr Pro Ala Glu Val Arg Gln Val
755 760 765

Leu Ala Leu Arg Ile Asp Phe Arg Ser Glu Asp Ile Lys Arg Leu Arg
770 775 780

Leu
785

<210> 66
<211> 337
<212> PRT
<213> Human

<400> 66

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

Ser Glu Gly Val Gly Gly Gly Arg Cys Ser Glu Ile Ser Ala Glu Leu
20 25 30

Ile Arg Ser Leu Thr Glu Leu Gln Glu Leu Glu Ala Val Tyr Glu Arg
35 40 45

Leu Cys Gly Glu Glu Lys Val Val Glu Arg Glu Leu Asp Ala Leu Leu
50 55 60

Glu Gln Gln Asn Thr Ile Glu Ser Lys Met Val Thr Leu His Arg Met
65 70 75 80

Gly Pro Asn Leu Gln Leu Ile Glu Gly Asp Ala Lys Gln Leu Ala Gly
85 90 95

Met Ile Thr Phe Thr Cys Asn Leu Ala Glu Asn Val Ser Ser Lys Val
100 105 110

Arg Gln Leu Asp Leu Ala Lys Asn Arg Leu Tyr Gln Ala Ile Gln Arg
115 120 125

Ala Asp Asp Ile Leu Asp Leu Lys Phe Cys Met Asp Gly Val Gln Thr
130 135 140

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Ala Leu Arg Ser Glu Asp Tyr Glu Gln Ala Ala Ala His Thr His Arg
145 150 155 160

Tyr Leu Cys Leu Asp Lys Ser Val Ile Glu Leu Ser Arg Gln Gly Lys
165 170 175

Glu Gly Ser Met Ile Asp Ala Asn Leu Lys Leu Leu Gln Glu Ala Glu
180 185 190

Gln Arg Leu Lys Ala Ile Val Ala Glu Lys Phe Ala Ile Ala Thr Lys
195 200 205

Glu Gly Asp Leu Pro Gln Val Glu Arg Phe Phe Lys Ile Phe Pro Leu
210 215 220

Leu Gly Leu His Glu Glu Gly Leu Arg Lys Phe Ser Glu Tyr Leu Cys
225 230 235 240

Lys Gln Val Ala Ser Lys Ala Glu Glu Asn Leu Leu Met Val Leu Gly
245 250 255

Thr Asp Met Ser Asp Arg Arg Ala Ala Val Ile Phe Ala Asp Thr Leu
260 265 270

Thr Leu Leu Phe Glu Gly Ile Ala Arg Ile Val Glu Thr His Gln Pro
275 280 285

Ile Val Glu Thr Tyr Tyr Gly Pro Gly Arg Leu Tyr Thr Leu Ile Lys
290 295 300

Tyr Leu Gln Val Glu Cys Asp Arg Gln Val Glu Lys Val Val Asp Lys
305 310 315 320

Phe Ile Lys Gln Arg Asp Tyr His Gln Gln Asn Phe Val Phe Ser Phe
325 330 335

Phe

<210> 67
<211> 695
<212> PRT
<213> Human

<400> 67

Met Gly Thr Lys Met Ala Asp Leu Asp Ser Pro Pro Lys Leu Ser Gly
1 5 10 15

Val Gln Gln Pro Ser Glu Gly Val Gly Gly Gly Arg Cys Ser Glu Ile
20 25 30

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

Val Tyr Glu Arg Leu Cys Gly Glu Glu Lys Val Val Glu Arg Glu Leu
50 55 60

Asp Ala Leu Leu Glu Gln Gln Asn Thr Ile Glu Ser Lys Met Val Thr
65 70 75 80

Leu His Arg Met Gly Pro Asn Leu Gln Leu Ile Glu Ala Asn Leu Lys
85 90 95

Leu Leu Gln Glu Ala Glu Gln Arg Leu Lys Ala Ile Val Ala Glu Lys
100 105 110

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

Phe Lys Ile Phe Pro Leu Leu Gly Leu His Glu Glu Gly Leu Arg Lys
130 135 140

Phe Ser Glu Tyr Leu Cys Lys Gln Val Ala Ser Lys Ala Glu Glu Asn
145 150 155 160

Leu Leu Met Val Leu Gly Thr Asp Met Ser Asp Arg Arg Ala Ala Val
165 170 175

Ile Phe Ala Asp Thr Leu Thr Leu Leu Phe Glu Gly Ile Ala Arg Ile
180 185 190

Val Glu Thr His Gln Pro Ile Val Glu Thr Tyr Tyr Gly Pro Gly Arg
195 200 205

Leu Tyr Thr Leu Ile Lys Tyr Leu Gln Val Glu Cys Asp Arg Gln Val
210 215 220

Glu Lys Val Val Asp Lys Phe Ile Lys Gln Arg Asp Tyr His Gln Gln
225 230 235 240

Phe Arg His Val Gln Asn Asn Leu Met Arg Asn Ser Thr Thr Glu Lys
245 250 255

Ile Glu Pro Arg Glu Leu Asp Pro Ile Leu Thr Glu Val Thr Leu Met
260 265 270

Asn Ala Arg Ser Glu Leu Tyr Leu Arg Phe Leu Lys Lys Arg Ile Ser
275 280 285

Ser Asp Phe Glu Val Gly Asp Ser Met Ala Ser Glu Glu Val Lys Gln
290 295 300

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Glu His Gln Lys Cys Leu Asp Lys Leu Leu Asn Asn Cys Leu Leu Ser
 305 310 315 320

Cys Thr Met Gln Glu Leu Ile Gly Leu Tyr Val Thr Met Glu Glu Tyr
 325 330 335

Phe Met Arg Glu Thr Val Asn Lys Ala Val Ala Leu Asp Thr Tyr Glu
 340 345 350

Lys Gly Gln Leu Thr Ser Ser Met Val Asp Asp Val Phe Tyr Ile Val
 355 360 365

Lys Lys Cys Ile Gly Arg Ala Leu Ser Ser Ser Ser Ile Asp Cys Leu
 370 375 380

Cys Ala Met Ile Asn Leu Ala Thr Thr Glu Leu Glu Ser Asp Phe Arg
 385 390 395 400

Asp Val Leu Cys Asn Lys Leu Arg Met Gly Phe Pro Ala Thr Thr Phe
 405 410 415

Gln Asp Ile Gln Arg Gly Val Thr Ser Ala Val Asn Ile Met His Ser
 420 425 430

Ser Leu Gln Gln Gly Lys Phe Asp Thr Lys Gly Ile Glu Ser Thr Asp
 435 440 445

Glu Ala Lys Met Ser Phe Leu Val Thr Leu Asn Asn Val Glu Val Cys
 450 455 460

Ser Glu Asn Ile Ser Thr Leu Lys Lys Thr Leu Glu Ser Asp Cys Thr
 465 470 475 480

Lys Leu Phe Ser Gln Gly Ile Gly Gly Glu Gln Ala Gln Ala Lys Phe
 485 490 495

Asp Ser Cys Leu Ser Asp Leu Ala Ala Val Ser Asn Lys Phe Arg Asp
 500 505 510

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

Gln Val Gln Pro Trp Ile Asn Ser Phe Phe Ser Val Ser His Asn Ile
 530 535 540

Glu Glu Glu Glu Phe Asn Asp Tyr Glu Ala Asn Asp Pro Trp Val Gln
 545 550 555 560

Gln Phe Ile Leu Asn Leu Glu Gln Gln Met Ala Glu Phe Lys Ala Ser
 565 570 575

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Leu Ser Pro Val Ile Tyr Asp Ser Leu Thr Gly Leu Met Thr Ser Leu
580 585 590

Val Ala Val Glu Leu Glu Lys Val Val Leu Lys Ser Thr Phe Asn Arg
595 600 605

Leu Gly Gly Leu Gln Phe Asp Lys Glu Leu Arg Ser Leu Ile Ala Tyr
610 615 620

Leu Thr Thr Val Thr Thr Trp Thr Ile Arg Asp Lys Phe Ala Arg Leu
625 630 635 640

Ser Gln Met Ala Thr Ile Leu Asn Leu Glu Arg Val Thr Glu Ile Leu
645 650 655

Asp Tyr Trp Gly Pro Asn Ser Gly Pro Leu Thr Trp Arg Leu Thr Pro
660 665 670

Ala Glu Val Arg Gln Val Leu Ala Leu Arg Ile Asp Phe Arg Ser Glu
675 680 685

Asp Ile Lys Arg Leu Arg Leu
690 695

<210> 68
<211> 417
<212> PRT
<213> Human

<400> 68

Met Glu Phe Val Lys Cys Leu Gly His Pro Glu Glu Phe Tyr Asn Leu
1 5 10 15

Val Arg Phe Arg Ile Gly Gly Lys Arg Lys Val Met Pro Lys Met Asp
20 25 30

Gln Asp Ser Leu Ser Ser Ser Leu Lys Thr Cys Tyr Lys Tyr Leu Asn
35 40 45

Gln Thr Ser Arg Ser Phe Ala Ala Val Ile Gln Ala Leu Asp Gly Glu
50 55 60

Met Arg Asn Ala Val Cys Ile Phe Tyr Leu Val Leu Arg Ala Leu Asp
65 70 75 80

Thr Leu Glu Asp Asp Met Thr Ile Ser Val Glu Lys Lys Val Pro Leu
85 90 95

Leu His Asn Phe His Ser Phe Leu Tyr Gln Pro Asp Trp Arg Phe Met
100 105 110

Glu Ser Lys Glu Lys Asp Arg Gln Val Leu Glu Asp Phe Pro Thr Ile
Seite 75

115 120 125
 Ser Leu Glu Phe Arg Asn Leu Ala Glu Lys Tyr Gln Thr Val Ile Ala
 130 135 140
 Asp Ile Cys Arg Arg Met Gly Ile Gly Met Ala Glu Phe Leu Asp Lys
 145 150 155 160
 His Val Thr Ser Glu Gln Glu Trp Asp Lys Tyr Cys His Tyr Val Ala
 165 170 175
 Gly Leu Val Gly Ile Gly Leu Ser Arg Leu Phe Ser Ala Ser Glu Phe
 180 185 190
 Glu Asp Pro Leu Val Gly Glu Asp Thr Glu Arg Ala Asn Ser Met Gly
 195 200 205
 Leu Phe Leu Gln Lys Thr Asn Ile Ile Arg Asp Tyr Leu Glu Asp Gln
 210 215 220
 Gln Gly Gly Arg Glu Phe Trp Pro Gln Glu Val Trp Ser Arg Tyr Val
 225 230 235 240
 Lys Lys Leu Gly Asp Phe Ala Lys Pro Glu Asn Ile Asp Leu Ala Val
 245 250 255
 Gln Cys Leu Asn Glu Leu Ile Thr Asn Ala Leu His His Ile Pro Asp
 260 265 270
 Val Ile Thr Tyr Leu Ser Arg Leu Arg Asn Gln Ser Val Phe Asn Phe
 275 280 285
 Cys Ala Ile Pro Gln Val Met Ala Ile Ala Thr Leu Ala Ala Cys Tyr
 290 295 300
 Asn Asn Gln Gln Val Phe Lys Gly Ala Val Lys Ile Arg Lys Gly Gln
 305 310 315 320
 Ala Val Thr Leu Met Met Asp Ala Thr Asn Met Pro Ala Val Lys Ala
 325 330 335
 Ile Ile Tyr Gln Tyr Met Glu Glu Ile Tyr His Arg Ile Pro Asp Ser
 340 345 350
 Asp Pro Ser Ser Ser Lys Thr Arg Gln Ile Ile Ser Thr Ile Arg Thr
 355 360 365
 Gln Asn Leu Pro Asn Cys Gln Leu Ile Ser Arg Ser His Tyr Ser Pro
 370 375 380
 Ile Tyr Leu Ser Phe Val Met Leu Leu Ala Ala Leu Ser Trp Gln Tyr
 385 390 395

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Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu Phe Asp Ala
210 215 220

Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu
225 230 235 240

Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met
245 250 255

Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr
260 265 270

Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp
275 280 285

Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys
290 295 300

Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg
305 310 315 320

Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu
325 330 335

Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe
340 345 350

Leu Ser Arg Lys Ser Lys Leu
355

<210> 70
<211> 227
<212> PRT
<213> Human

<400> 70

Met Tyr His Glu Ile Met Arg Ala Leu Lys Ala Ala Ser Lys Asp Asp
1 5 10 15

Ser Ile Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr Tyr Ser Ser Gly
20 25 30

Asn Asp Leu Thr Asn Phe Thr Asp Ile Pro Pro Gly Gly Val Glu Glu
35 40 45

Lys Ala Lys Asn Asn Ala Val Leu Leu Arg Glu Phe Val Gly Cys Phe
50 55 60

Ile Asp Phe Pro Lys Pro Leu Ile Ala Val Val Asn Gly Pro Ala Val
65 70 75 80

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

Asp Arg Ala Thr Phe His Thr Pro Phe Ser His Leu Gly Gln Ser Pro
100 105 110

Glu Gly Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met Ser Pro Ala Lys
115 120 125

Ala Thr Glu Met Leu Ile Phe Gly Lys Lys Leu Thr Ala Gly Glu Ala
130 135 140

Cys Ala Gln Gly Leu Val Thr Glu Val Phe Pro Asp Ser Thr Phe Gln
145 150 155 160

Lys Glu Val Trp Thr Arg Leu Lys Ala Phe Ala Lys Leu Pro Pro Asn
165 170 175

Ala Leu Arg Ile Ser Lys Glu Val Ile Arg Lys Arg Glu Arg Glu Lys
180 185 190

Leu His Ala Val Asn Ala Glu Glu Cys Asn Val Leu Gln Gly Arg Trp
195 200 205

Leu Ser Asp Glu Cys Thr Asn Ala Val Val Asn Phe Leu Ser Arg Lys
210 215 220

Ser Lys Leu
225

<210> 71
<211> 394
<212> PRT
<213> Human

<400> 71

Met Ala Met Ala Tyr Leu Ala Trp Arg Leu Ala Arg Arg Ser Cys Pro
1 5 10 15

Ser Ser Leu Gln Val Thr Ser Phe Pro Val Val Gln Leu His Met Asn
20 25 30

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

Gln Val Lys Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys Leu Lys
50 55 60

Leu Tyr Ala Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn Met Pro
65 70 75 80

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Lys Pro Gly Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp Ala Trp
85 90 95

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

Asp Leu Val Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser Gln Val
115 120 125

Glu Pro Gly Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu Val Val
130 135 140

Thr Ser Glu Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro Lys Lys
145 150 155 160

Lys Asn Ala Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg Ala Leu
165 170 175

Lys Ala Ala Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr Gly Asn
180 185 190

Gly Asp Tyr Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr Asp Ile
195 200 205

Pro Pro Gly Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val Leu Leu
210 215 220

Arg Glu Phe Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu Ile Ala
225 230 235 240

Val Val Asn Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu Gly Leu
245 250 255

Phe Asp Ala Val Tyr Ala Ser Asp Arg Ala Thr Phe His Thr Pro Phe
260 265 270

Ser His Leu Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr Phe Pro
275 280 285

Lys Ile Met Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe Gly Lys
290 295 300

Lys Leu Thr Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr Glu Val
305 310 315 320

Phe Pro Asp Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu Lys Ala
325 330 335

Phe Ala Lys Leu Pro Pro Asn Ala Leu Arg Ile Ser Lys Glu Val Ile
340 345 350

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Arg Lys Arg Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu Glu Cys
355 360 365

Asn Val Leu Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn Ala Val
370 375 380

Val Asn Phe Leu Ser Arg Lys Ser Lys Leu
385 390

<210> 72
<211> 364
<212> PRT
<213> Human

<400> 72

Met Asn Arg Thr Ala Met Arg Ala Ser Gln Lys Asp Phe Glu Asn Ser
1 5 10 15

Met Asn Gln Val Lys Leu Leu Lys Lys Asp Pro Gly Asn Glu Val Lys
20 25 30

Leu Lys Leu Tyr Ala Leu Tyr Lys Gln Ala Thr Glu Gly Pro Cys Asn
35 40 45

Met Pro Lys Pro Gly Val Phe Asp Leu Ile Asn Lys Ala Lys Trp Asp
50 55 60

Ala Trp Asn Ala Leu Gly Ser Leu Pro Lys Glu Ala Ala Arg Gln Asn
65 70 75 80

Tyr Val Asp Leu Val Ser Ser Leu Ser Pro Ser Leu Glu Ser Ser Ser
85 90 95

Gln Val Glu Pro Gly Thr Asp Arg Lys Ser Thr Gly Phe Glu Thr Leu
100 105 110

Val Val Thr Ser Glu Asp Gly Ile Thr Lys Ile Met Phe Asn Arg Pro
115 120 125

Lys Lys Lys Asn Ala Ile Asn Thr Glu Met Tyr His Glu Ile Met Arg
130 135 140

Ala Leu Lys Ala Ala Ser Lys Asp Asp Ser Ile Ile Thr Val Leu Thr
145 150 155 160

Gly Asn Gly Asp Tyr Tyr Ser Ser Gly Asn Asp Leu Thr Asn Phe Thr
165 170 175

Asp Ile Pro Pro Gly Gly Val Glu Glu Lys Ala Lys Asn Asn Ala Val
180 185 190

Leu Leu Arg Glu Phe Val Gly Cys Phe Ile Asp Phe Pro Lys Pro Leu
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195

200

205

Ile Ala Val Val Asn Gly Pro Ala Val Gly Ile Ser Val Thr Leu Leu
210 215 220

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

Pro Phe Ser His Leu Gly Gln Ser Pro Glu Gly Cys Ser Ser Tyr Thr
245 250 255

Phe Pro Lys Ile Met Ser Pro Ala Lys Ala Thr Glu Met Leu Ile Phe
260 265 270

Gly Lys Lys Leu Thr Ala Gly Glu Ala Cys Ala Gln Gly Leu Val Thr
275 280 285

Glu Val Phe Pro Asp Ser Thr Phe Gln Lys Glu Val Trp Thr Arg Leu
290 295 300

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

Val Ile Arg Lys Arg Glu Arg Glu Lys Leu His Ala Val Asn Ala Glu
325 330 335

Glu Cys Asn Val Leu Gln Gly Arg Trp Leu Ser Asp Glu Cys Thr Asn
340 345 350

Ala Val Val Asn Phe Leu Ser Arg Lys Ser Lys Leu
355 360

<210> 73
<211> 241
<212> PRT
<213> Human

<400> 73

Met Phe Asn Arg Pro Lys Lys Lys Asn Ala Ile Asn Thr Glu Met Tyr
1 5 10 15

His Glu Ile Met Arg Ala Leu Lys Ala Ala Ser Lys Asp Asp Ser Ile
20 25 30

Ile Thr Val Leu Thr Gly Asn Gly Asp Tyr Tyr Ser Ser Gly Asn Asp
35 40 45

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

Lys Asn Asn Ala Val Leu Leu Arg Glu Phe Val Gly Cys Phe Ile Asp
65 70 75 80

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Phe Pro Lys Pro Leu Ile Ala Val Val Asn Gly Pro Ala Val Gly Ile
85 90 95

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

Ala Thr Phe His Thr Pro Phe Ser His Leu Gly Gln Ser Pro Glu Gly
115 120 125

Cys Ser Ser Tyr Thr Phe Pro Lys Ile Met Ser Pro Ala Lys Ala Thr
130 135 140

Glu Met Leu Ile Phe Gly Lys Lys Leu Thr Ala Gly Glu Ala Cys Ala
145 150 155 160

Gln Gly Leu Val Thr Glu Val Phe Pro Asp Ser Thr Phe Gln Lys Glu
165 170 175

Val Trp Thr Arg Leu Lys Ala Phe Ala Lys Leu Pro Pro Asn Ala Leu
180 185 190

Arg Ile Ser Lys Glu Val Ile Arg Lys Arg Glu Arg Glu Lys Leu His
195 200 205

Ala Val Asn Ala Glu Glu Cys Asn Val Leu Gln Gly Arg Trp Leu Ser
210 215 220

Asp Glu Cys Thr Asn Ala Val Val Asn Phe Leu Ser Arg Lys Ser Lys
225 230 235 240

Leu

<210> 74
<211> 1225
<212> PRT
<213> Human

<400> 74

Met Phe Ala Arg Lys Pro Pro Gly Ala Ala Pro Leu Gly Ala Met Pro
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Val Pro Asp Gln Pro Ser Ser Ala Ser Glu Lys Thr Ser Ser Leu Ser
20 25 30

Pro Gly Leu Asn Thr Ser Asn Gly Asp Gly Ser Glu Thr Glu Thr Thr
35 40 45

Ser Ala Ile Leu Ala Ser Val Lys Glu Gln Glu Leu Gln Phe Glu Arg
50 55 60

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Leu Thr Arg Glu Leu Glu Ala Glu Arg Gln Ile Val Ala Ser Gln Leu
 65 70 75 80
 Glu Arg Cys Lys Leu Gly Ser Glu Thr Gly Ser Met Ser Ser Met Ser
 85 90 95
 Ser Ala Glu Glu Gln Phe Gln Trp Gln Ser Gln Asp Gly Gln Lys Asp
 100 105 110
 Ile Glu Asp Glu Leu Thr Thr Gly Leu Glu Leu Val Asp Ser Cys Ile
 115 120 125
 Arg Ser Leu Gln Glu Ser Gly Ile Leu Asp Pro Gln Asp Tyr Ser Thr
 130 135 140
 Gly Glu Arg Pro Ser Leu Leu Ser Gln Ser Ala Leu Gln Leu Asn Ser
 145 150 155 160
 Lys Pro Glu Gly Ser Phe Gln Tyr Pro Ala Ser Tyr His Ser Asn Gln
 165 170 175
 Thr Leu Ala Leu Gly Glu Thr Thr Pro Ser Gln Leu Pro Ala Arg Gly
 180 185 190
 Thr Gln Ala Arg Ala Thr Gly Gln Ser Phe Ser Gln Gly Thr Thr Ser
 195 200 205
 Arg Ala Gly His Leu Ala Gly Pro Glu Pro Ala Pro Pro Pro Pro Pro
 210 215 220
 Pro Pro Arg Glu Pro Phe Ala Pro Ser Leu Gly Ser Ala Phe His Leu
 225 230 235 240
 Pro Asp Ala Pro Pro Ala Ala Ala Ala Ala Ala Leu Tyr Tyr Ser Ser
 245 250 255
 Ser Thr Leu Pro Ala Pro Pro Arg Gly Gly Ser Pro Leu Ala Ala Pro
 260 265 270
 Gln Gly Gly Ser Pro Thr Lys Leu Gln Arg Gly Gly Ser Ala Pro Glu
 275 280 285
 Gly Ala Thr Tyr Ala Ala Pro Arg Gly Ser Ser Pro Lys Gln Ser Pro
 290 295 300
 Ser Arg Leu Ala Lys Ser Tyr Ser Thr Ser Ser Pro Ile Asn Ile Val
 305 310 315 320
 Val Ser Ser Ala Gly Leu Ser Pro Ile Arg Val Thr Ser Pro Pro Thr
 325 330 335

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Val Gln Ser Thr Ile Ser Ser Ser Pro Ile His Gln Leu Ser Ser Thr
 340 345 350
 Ile Gly Thr Tyr Ala Thr Leu Ser Pro Thr Lys Arg Leu Val His Ala
 355 360 365
 Ser Glu Gln Tyr Ser Lys His Ser Gln Glu Leu Tyr Ala Thr Ala Thr
 370 375 380
 Leu Gln Arg Pro Gly Ser Leu Ala Ala Gly Ser Arg Ala Ser Tyr Ser
 385 390 395 400
 Ser Gln His Gly His Leu Gly Pro Glu Leu Arg Ala Leu Gln Ser Pro
 405 410 415
 Glu His His Ile Asp Pro Ile Tyr Glu Asp Arg Val Tyr Gln Lys Pro
 420 425 430
 Pro Met Arg Ser Leu Ser Gln Ser Gln Gly Asp Pro Leu Pro Pro Ala
 435 440 445
 His Thr Gly Thr Tyr Arg Thr Ser Thr Ala Pro Ser Ser Pro Gly Val
 450 455 460
 Asp Ser Val Pro Leu Gln Arg Thr Gly Ser Gln His Gly Pro Gln Asn
 465 470 475 480
 Ala Ala Ala Ala Thr Phe Gln Arg Ala Ser Tyr Ala Ala Gly Pro Ala
 485 490 495
 Ser Asn Tyr Ala Asp Pro Tyr Arg Gln Leu Gln Tyr Cys Pro Ser Val
 500 505 510
 Glu Ser Pro Tyr Ser Lys Ser Gly Pro Ala Leu Pro Pro Glu Gly Thr
 515 520 525
 Leu Ala Arg Ser Pro Ser Ile Asp Ser Ile Gln Lys Asp Pro Arg Glu
 530 535 540
 Phe Gly Trp Arg Asp Pro Glu Leu Pro Glu Val Ile Gln Met Leu Gln
 545 550 555 560
 His Gln Phe Pro Ser Val Gln Ser Asn Ala Ala Ala Tyr Leu Gln His
 565 570 575
 Leu Cys Phe Gly Asp Asn Lys Ile Lys Ala Glu Ile Arg Arg Gln Gly
 580 585 590
 Gly Ile Gln Leu Leu Val Asp Leu Leu Asp His Arg Met Thr Glu Val
 595 600 605

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His Arg Ser Ala Cys Gly Ala Leu Arg Asn Leu Val Tyr Gly Lys Ala
610 615 620

Asn Asp Asp Asn Lys Ile Ala Leu Lys Asn Cys Gly Gly Ile Pro Ala
625 630 635 640

Leu Val Arg Leu Leu Arg Lys Thr Thr Asp Leu Glu Ile Arg Glu Leu
645 650 655

Val Thr Gly Val Leu Trp Asn Leu Ser Ser Cys Asp Ala Leu Lys Met
660 665 670

Pro Ile Ile Gln Asp Ala Leu Ala Val Leu Thr Asn Ala Val Ile Ile
675 680 685

Pro His Ser Gly Trp Glu Asn Ser Pro Leu Gln Asp Asp Arg Lys Ile
690 695 700

Gln Leu His Ser Ser Gln Val Leu Arg Asn Ala Thr Gly Cys Leu Arg
705 710 715 720

Asn Val Ser Ser Ala Gly Glu Glu Ala Arg Arg Arg Met Arg Glu Cys
725 730 735

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

Ser Ser Glu Ile Asp Ser Lys Thr Val Glu Asn Cys Val Cys Ile Leu
755 760 765

Arg Asn Leu Ser Tyr Arg Leu Ala Ala Glu Thr Ser Gln Gly Gln His
770 775 780

Met Gly Thr Asp Glu Leu Asp Gly Leu Leu Cys Gly Glu Ala Asn Gly
785 790 795 800

Lys Asp Ala Glu Ser Ser Gly Cys Trp Gly Lys Lys Lys Lys Lys Lys
805 810 815

Lys Ser Gln Asp Gln Trp Asp Gly Val Gly Pro Leu Pro Asp Cys Ala
820 825 830

Glu Pro Pro Lys Gly Ile Gln Met Leu Trp His Pro Ser Ile Val Lys
835 840 845

Pro Tyr Leu Thr Leu Leu Ser Glu Cys Ser Asn Pro Asp Thr Leu Glu
850 855 860

Gly Ala Ala Gly Ala Leu Gln Asn Leu Ala Ala Gly Ser Trp Lys Trp
865 870 875 880

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Ser Val Tyr Ile Arg Ala Ala Val Arg Lys Glu Lys Gly Leu Pro Ile
885 890 895

Leu Val Glu Leu Leu Arg Ile Asp Asn Asp Arg Val Val Cys Ala Val
900 905 910

Ala Thr Ala Leu Arg Asn Met Ala Leu Asp Val Arg Asn Lys Glu Leu
915 920 925

Ile Gly Lys Tyr Ala Met Arg Asp Leu Val His Arg Leu Pro Gly Gly
930 935 940

Asn Asn Ser Asn Asn Thr Ala Ser Lys Ala Met Ser Asp Asp Thr Val
945 950 955 960

Thr Ala Val Cys Cys Thr Leu His Glu Val Ile Thr Lys Asn Met Glu
965 970 975

Asn Ala Lys Ala Leu Arg Asp Ala Gly Gly Ile Glu Lys Leu Val Gly
980 985 990

Ile Ser Lys Ser Lys Gly Asp Lys His Ser Pro Lys Val Val Lys Ala
995 1000 1005

Ala Ser Gln Val Leu Asn Ser Met Trp Gln Tyr Arg Asp Leu Arg
1010 1015 1020

Ser Leu Tyr Lys Lys Asp Gly Trp Ser Gln Tyr His Phe Val Ala
1025 1030 1035

Ser Ser Ser Thr Ile Glu Arg Asp Arg Gln Arg Pro Tyr Ser Ser
1040 1045 1050

Ser Arg Thr Pro Ser Ile Ser Pro Val Arg Val Ser Pro Asn Asn
1055 1060 1065

Arg Ser Ala Ser Ala Pro Ala Ser Pro Arg Glu Met Ile Ser Leu
1070 1075 1080

Lys Glu Arg Lys Thr Asp Tyr Glu Cys Thr Gly Ser Asn Ala Thr
1085 1090 1095

Tyr His Gly Ala Lys Gly Glu His Thr Ser Arg Lys Asp Ala Met
1100 1105 1110

Thr Ala Gln Asn Thr Gly Ile Ser Thr Leu Tyr Arg Asn Ser Tyr
1115 1120 1125

Gly Ala Pro Ala Glu Asp Ile Lys His Asn Gln Val Ser Ala Gln
1130 1135 1140

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Pro Val Pro Gln Glu Pro Ser Arg Lys Asp Tyr Glu Thr Tyr Gln
1145 1150 1155

Pro Phe Gln Asn Ser Thr Arg Asn Tyr Asp Glu Ser Phe Phe Glu
1160 1165 1170

Asp Gln Val His His Arg Pro Pro Ala Ser Glu Tyr Thr Met His
1175 1180 1185

Leu Gly Leu Lys Ser Thr Gly Asn Tyr Val Asp Phe Tyr Ser Ala
1190 1195 1200

Ala Arg Pro Tyr Ser Glu Leu Asn Tyr Glu Thr Ser His Tyr Pro
1205 1210 1215

Ala Ser Pro Asp Ser Trp Val
1220 1225

<210> 75
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<212> PRT
<213> Human

<400> 75

Met Phe Ala Arg Lys Pro Pro Gly Ala Ala Pro Leu Gly Ala Met Pro
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Val Pro Asp Gln Pro Ser Ser Ala Ser Glu Lys Thr Ser Ser Leu Ser
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Pro Gly Leu Asn Thr Ser Asn Gly Asp Gly Ser Glu Thr Glu Thr Thr
35 40 45

Ser Ala Ile Leu Ala Ser Val Lys Glu Gln Glu Leu Gln Phe Glu Arg
50 55 60

Leu Thr Arg Glu Leu Glu Ala Glu Arg Gln Ile Val Ala Ser Gln Leu
65 70 75 80

Glu Arg Cys Lys Leu Gly Ser Glu Thr Gly Ser Met Ser Ser Met Ser
85 90 95

Ser Ala Glu Glu Gln Phe Gln Trp Gln Ser Gln Asp Gly Gln Lys Asp
100 105 110

Ile Glu Asp Glu Leu Thr Thr Gly Leu Glu Leu Val Asp Ser Cys Ile
115 120 125

Arg Ser Leu Gln Glu Ser Gly Ile Leu Asp Pro Gln Asp Tyr Ser Thr
130 135 140

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Gly Glu Arg Pro Ser Leu Leu Ser Gln Ser Ala Leu Gln Leu Asn Ser
145 150 155 160

Lys Pro Glu Gly Ser Phe Gln Tyr Pro Ala Ser Tyr His Ser Asn Gln
165 170 175

Thr Leu Ala Leu Gly Glu Thr Thr Pro Ser Gln Leu Pro Ala Arg Gly
180 185 190

Thr Gln Ala Arg Ala Thr Gly Gln Ser Phe Ser Gln Gly Thr Thr Ser
195 200 205

Arg Ala Gly His Leu Ala Gly Pro Glu Pro Ala Pro Pro Pro Pro Pro
210 215 220

Pro Pro Arg Glu Pro Phe Ala Pro Ser Leu Gly Ser Ala Phe His Leu
225 230 235 240

Pro Asp Ala Pro Pro Ala Ala Ala Ala Ala Ala Leu Tyr Tyr Ser Ser
245 250 255

Ser Thr Leu Pro Ala Pro Pro Arg Gly Gly Ser Pro Leu Ala Ala Pro
260 265 270

Gln Gly Gly Ser Pro Thr Lys Leu Gln Arg Gly Gly Ser Ala Pro Glu
275 280 285

Gly Ala Thr Tyr Ala Ala Pro Arg Gly Ser Ser Pro Lys Gln Ser Pro
290 295 300

Ser Arg Leu Ala Lys Ser Tyr Ser Thr Ser Ser Pro Ile Asn Ile Val
305 310 315 320

Val Ser Ser Ala Gly Leu Ser Pro Ile Arg Val Thr Ser Pro Pro Thr
325 330 335

Val Gln Ser Thr Ile Ser Ser Ser Pro Ile His Gln Leu Ser Ser Thr
340 345 350

Ile Gly Thr Tyr Ala Thr Leu Ser Pro Thr Lys Arg Leu Val His Ala
355 360 365

Ser Glu Gln Tyr Ser Lys His Ser Gln Glu Leu Tyr Ala Thr Ala Thr
370 375 380

Leu Gln Arg Pro Gly Ser Leu Ala Ala Gly Ser Arg Ala Ser Tyr Ser
385 390 395 400

Ser Gln His Gly His Leu Gly Pro Glu Leu Arg Ala Leu Gln Ser Pro
405 410 415

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Glu His His Ile Asp Pro Ile Tyr Glu Asp Arg Val Tyr Gln Lys Pro
420 425 430

Pro Met Arg Ser Leu Ser Gln Ser Gln Gly Asp Pro Leu Pro Pro Ala
435 440 445

His Thr Gly Thr Tyr Arg Thr Ser Thr Ala Pro Ser Ser Pro Gly Val
450 455 460

Asp Ser Val Pro Leu Gln Arg Thr Gly Ser Gln His Gly Pro Gln Asn
465 470 475 480

Ala Ala Ala Ala Thr Phe Gln Arg Ala Ser Tyr Ala Ala Gly Pro Ala
485 490 495

Ser Asn Tyr Ala Asp Pro Tyr Arg Gln Leu Gln Tyr Cys Pro Ser Val
500 505 510

Glu Ser Pro Tyr Ser Lys Ser Gly Pro Ala Leu Pro Pro Glu Gly Thr
515 520 525

Leu Ala Arg Ser Pro Ser Ile Asp Ser Ile Gln Lys Asp Pro Arg Glu
530 535 540

Phe Gly Trp Arg Asp Pro Glu Leu Pro Glu Val Ile Gln Met Leu Gln
545 550 555 560

His Gln Phe Pro Ser Val Gln Ser Asn Ala Ala Ala Tyr Leu Gln His
565 570 575

Leu Cys Phe Gly Asp Asn Lys Ile Lys Ala Glu Ile Arg Arg Gln Gly
580 585 590

Gly Ile Gln Leu Leu Val Asp Leu Leu Asp His Arg Met Thr Glu Val
595 600 605

His Arg Ser Ala Cys Gly Ala Leu Arg Asn Leu Val Tyr Gly Lys Ala
610 615 620

Asn Asp Asp Asn Lys Ile Ala Leu Lys Asn Cys Gly Gly Ile Pro Ala
625 630 635 640

Leu Val Arg Leu Leu Arg Lys Thr Thr Asp Leu Glu Ile Arg Glu Leu
645 650 655

Val Thr Gly Val Leu Trp Asn Leu Ser Ser Cys Asp Ala Leu Lys Met
660 665 670

Pro Ile Ile Gln Asp Ala Leu Ala Val Leu Thr Asn Ala Val Ile Ile
675 680 685

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Pro His Ser Gly Trp Glu Asn Ser Pro Leu Gln Asp Asp Arg Lys Ile
690 695 700

Gln Leu His Ser Ser Gln Val Leu Arg Asn Ala Thr Gly Cys Leu Arg
705 710 715 720

Asn Val Ser Ser Ala Gly Glu Glu Ala Arg Arg Arg Met Arg Glu Cys
725 730 735

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

Ser Ser Glu Ile Asp Ser Lys Thr Val Glu Asn Cys Val Cys Ile Leu
755 760 765

Arg Asn Leu Ser Tyr Arg Leu Ala Ala Glu Thr Ser Gln Gly Gln His
770 775 780

Met Gly Thr Asp Glu Leu Asp Gly Leu Leu Cys Gly Glu Ala Asn Gly
785 790 795 800

Lys Asp Ala Glu Ser Ser Gly Cys Trp Gly Lys Lys Lys Lys Lys Lys
805 810 815

Lys Ser Gln Asp Gln Trp Ser Val Tyr Ile Arg Ala Ala Val Arg Lys
820 825 830

Glu Lys Gly Leu Pro Ile Leu Val Glu Leu Leu Arg Ile Asp Asn Asp
835 840 845

Arg Val Val Cys Ala Val Ala Thr Ala Leu Arg Asn Met Ala Leu Asp
850 855 860

Val Arg Asn Lys Glu Leu Ile Gly Lys Tyr Ala Met Arg Asp Leu Val
865 870 875 880

His Arg Leu Pro Gly Gly Asn Asn Ser Asn Asn Thr Ala Ser Lys Ala
885 890 895

Met Ser Asp Asp Thr Val Thr Ala Val Cys Cys Thr Leu His Glu Val
900 905 910

Ile Thr Lys Asn Met Glu Asn Ala Lys Ala Leu Arg Asp Ala Gly Gly
915 920 925

Ile Glu Lys Leu Val Gly Ile Ser Lys Ser Lys Gly Asp Lys His Ser
930 935 940

Pro Lys Val Val Lys Ala Ala Ser Gln Val Leu Asn Ser Met Trp Gln
945 950 955 960

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Tyr Arg Asp Leu Arg Ser Leu Tyr Lys Lys Asp Gly Trp Ser Gln Tyr
965 970 975

His Phe Val Ala Ser Ser Ser Thr Ile Glu Arg Asp Arg Gln Arg Pro
980 985 990

Tyr Ser Ser Ser Arg Thr Pro Ser Ile Ser Pro Val Arg Val Ser Pro
995 1000 1005

Asn Asn Arg Ser Ala Ser Ala Pro Ala Ser Pro Arg Glu Met Ile
1010 1015 1020

Ser Leu Lys Glu Arg Lys Thr Asp Tyr Glu Cys Thr Gly Ser Asn
1025 1030 1035

Ala Thr Tyr His Gly Ala Lys Gly Glu His Thr Ser Arg Lys Asp
1040 1045 1050

Ala Met Thr Ala Gln Asn Thr Gly Ile Ser Thr Leu Tyr Arg Asn
1055 1060 1065

Ser Tyr Gly Ala Pro Ala Glu Asp Ile Lys His Asn Gln Val Ser
1070 1075 1080

Ala Gln Pro Val Pro Gln Glu Pro Ser Arg Lys Asp Tyr Glu Thr
1085 1090 1095

Tyr Gln Pro Phe Gln Asn Ser Thr Arg Asn Tyr Asp Glu Ser Phe
1100 1105 1110

Phe Glu Asp Gln Val His His Arg Pro Pro Ala Ser Glu Tyr Thr
1115 1120 1125

Met His Leu Gly Leu Lys Ser Thr Gly Asn Tyr Val Asp Phe Tyr
1130 1135 1140

Ser Ala Ala Arg Pro Tyr Ser Glu Leu Asn Tyr Glu Thr Ser His
1145 1150 1155

Tyr Pro Ala Ser Pro Asp Ser Trp Val
1160 1165

<210> 76
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<212> PRT
<213> Human

<400> 76

Met Gln Gly Ser Thr Arg Arg Met Gly Val Met Thr Asp Val His Arg
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Arg Phe Leu Gln Leu Leu Met Thr His Gly Val Leu Glu Glu Trp Asp
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20

25

30

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

<210> 77
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 <212> PRT
 <213> Human

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<400> 77

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 His Met Gln Gly Ser Thr Arg Arg Met Gly Val Met Thr Asp Val His
 20 25 30
 Arg Arg Phe Leu Gln Leu Leu Met Thr His Gly Val Leu Glu Glu Trp
 35 40 45
 Asp Val Lys Arg Leu Gln Thr His Cys Tyr Lys Val His Asp Arg Asn
 50 55 60
 Ala Thr Val Asp Lys Leu Glu Asp Phe Ile Asn Asn Ile Asn Ser Val
 65 70 75 80
 Leu Glu Ser Leu Tyr Ile Glu Ile Lys Arg Gly Val Thr Glu Asp Asp
 85 90 95
 Gly Arg Pro Ile Tyr Ala Leu Val Asn Leu Ala Thr Thr Ser Ile Ser
 100 105 110
 Lys Met Ala Thr Asp Phe Ala Glu Asn Glu Leu Asp Leu Phe Arg Lys
 115 120 125
 Ala Leu Glu Leu Ile Ile Asp Ser Glu Thr Leu Arg Leu Pro Gln Thr
 130 135 140
 Tyr
 145

<210> 78
 <211> 179
 <212> PRT
 <213> Human

<400> 78

Val His Leu Ala Thr Val Ser Ala Ser Ala Ala Trp Asp Ala Leu Gly
 1 5 10 15
 Leu Pro Val Arg Ser His Met Gln Gly Ser Thr Arg Arg Met Gly Val
 20 25 30
 Met Thr Asp Val His Arg Arg Phe Leu Gln Leu Leu Met Thr His Gly
 35 40 45
 Val Leu Glu Glu Trp Asp Val Lys Arg Leu Gln Thr His Cys Tyr Lys
 50 55 60
 Val His Asp Arg Asn Ala Thr Val Asp Lys Leu Glu Asp Phe Ile Asn
 65 70 75 80

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Asn Ile Asn Ser Val Leu Glu Ser Leu Tyr Ile Glu Ile Lys Arg Gly
85 90 95

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

Thr Thr Ser Ile Ser Lys Met Ala Thr Asp Phe Ala Glu Asn Glu Leu
115 120 125

Asp Leu Phe Arg Lys Ala Leu Glu Leu Ile Ile Asp Ser Glu Thr Gly
130 135 140

Phe Ala Ser Ser Thr Asn Ile Leu Asn Leu Val Asp Gln Leu Lys Gly
145 150 155 160

Lys Lys Met Arg Lys Lys Glu Ala Arg Cys Cys Arg Ser Leu Phe Lys
165 170 175

Thr Ser Gly

<210> 79
<211> 392
<212> PRT
<213> Human

<400> 79

Met Glu Trp Trp Ala Ser Ser Pro Leu Arg Leu Trp Leu Leu Phe
1 5 10 15

Leu Leu Pro Ser Ala Gln Gly Arg Gln Lys Glu Ser Gly Ser Lys Trp
20 25 30

Lys Val Phe Ile Asp Gln Ile Asn Arg Ser Leu Glu Asn Tyr Glu Pro
35 40 45

Cys Ser Ser Gln Asn Cys Ser Cys Tyr His Gly Val Ile Glu Glu Asp
50 55 60

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

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

Tyr Arg Glu Asn Asp Cys Met Phe Pro Ser Arg Cys Ser Gly Val Glu
100 105 110

His Phe Ile Leu Glu Val Ile Gly Arg Leu Pro Asp Met Glu Met Val
115 120 125

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Ile Asn Val Arg Asp Tyr Pro Gln Val Pro Lys Trp Met Glu Pro Ala
130 135 140

Ile Pro Val Phe Ser Phe Ser Lys Thr Ser Glu Tyr His Asp Ile Met
145 150 155 160

Tyr Pro Ala Trp Thr Phe Trp Glu Gly Gly Pro Ala Val Trp Pro Ile
165 170 175

Tyr Pro Thr Gly Leu Gly Arg Trp Asp Leu Phe Arg Glu Asp Leu Val
180 185 190

Arg Ser Ala Ala Gln Trp Pro Trp Lys Lys Lys Asn Ser Thr Ala Tyr
195 200 205

Phe Arg Gly Ser Arg Thr Ser Pro Glu Arg Asp Pro Leu Ile Leu Leu
210 215 220

Ser Arg Lys Asn Pro Lys Leu Val Asp Ala Glu Tyr Thr Lys Asn Gln
225 230 235 240

Ala Trp Lys Ser Met Lys Asp Thr Leu Gly Lys Pro Ala Ala Lys Asp
245 250 255

Val His Leu Val Asp His Cys Lys Tyr Lys Tyr Leu Phe Asn Phe Arg
260 265 270

Gly Val Ala Ala Ser Phe Arg Phe Lys His Leu Phe Leu Cys Gly Ser
275 280 285

Leu Val Phe His Val Gly Asp Glu Trp Leu Glu Phe Phe Tyr Pro Gln
290 295 300

Leu Lys Pro Trp Val His Tyr Ile Pro Val Lys Thr Asp Leu Ser Asn
305 310 315 320

Val Gln Glu Leu Leu Gln Phe Val Lys Ala Asn Asp Asp Val Ala Gln
325 330 335

Glu Ile Ala Glu Arg Gly Ser Gln Phe Ile Arg Asn His Leu Gln Met
340 345 350

Asp Asp Ile Thr Cys Tyr Trp Glu Asn Leu Leu Ser Glu Tyr Ser Lys
355 360 365

Phe Leu Ser Tyr Asn Val Thr Arg Arg Lys Gly Tyr Asp Gln Ile Ile
370 375 380

Pro Lys Met Leu Lys Thr Glu Leu
385 390

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<210> 80
<211> 411
<212> PRT
<213> Human

<400> 80

Met Arg Arg Arg Arg Ala Gly Gly Arg Thr Met Val Glu Arg Ala Ser
1 5 10 15

Lys Phe Val Leu Val Val Ala Gly Ser Val Cys Phe Met Leu Ile Leu
20 25 30

Tyr Gln Tyr Ala Gly Pro Gly Leu Ser Leu Gly Ala Pro Gly Gly Arg
35 40 45

Ala Pro Pro Asp Asp Leu Asp Leu Phe Pro Thr Pro Asp Pro His Tyr
50 55 60

Glu Lys Lys Tyr Tyr Phe Pro Val Arg Glu Leu Glu Arg Ser Leu Arg
65 70 75 80

Phe Asp Met Lys Gly Asp Asp Val Ile Val Phe Leu His Ile Gln Lys
85 90 95

Thr Gly Gly Thr Thr Phe Gly Arg His Leu Val Gln Asn Val Arg Leu
100 105 110

Glu Val Pro Cys Asp Cys Arg Pro Gly Gln Lys Lys Cys Thr Cys Tyr
115 120 125

Arg Pro Asn Arg Arg Glu Thr Trp Leu Phe Ser Arg Phe Ser Thr Gly
130 135 140

Trp Ser Cys Gly Leu His Ala Asp Trp Thr Glu Leu Thr Asn Cys Val
145 150 155 160

Pro Gly Val Leu Asp Arg Arg Asp Ser Ala Ala Leu Arg Thr Pro Arg
165 170 175

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

Ser Glu Trp Arg His Val Gln Arg Gly Ala Thr Trp Lys Thr Ser Leu
195 200 205

His Met Cys Asp Gly Arg Thr Pro Thr Pro Glu Glu Leu Pro Pro Cys
210 215 220

Tyr Glu Gly Thr Asp Trp Ser Gly Cys Thr Leu Gln Glu Phe Met Asp
225 230 235 240

Cys Pro Tyr Asn Leu Ala Asn Asn Arg Gln Val Arg Met Leu Ala Asp
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245 250 255

Leu Ser Leu Val Gly Cys Tyr Asn Leu Ser Phe Ile Pro Glu Gly Lys
260 265 270

Arg Ala Gln Leu Leu Leu Glu Ser Ala Lys Lys Asn Leu Arg Gly Met
275 280 285

Ala Phe Phe Gly Leu Thr Glu Phe Gln Arg Lys Thr Gln Tyr Leu Phe
290 295 300

Glu Arg Thr Phe Asn Leu Lys Phe Ile Arg Pro Phe Met Gln Tyr Asn
305 310 315 320

Ser Thr Arg Ala Gly Gly Val Glu Val Asp Glu Asp Thr Ile Arg Arg
325 330 335

Ile Glu Glu Leu Asn Asp Leu Asp Met Gln Leu Tyr Asp Tyr Ala Lys
340 345 350

Asp Leu Phe Gln Gln Arg Tyr Gln Tyr Lys Arg Gln Leu Glu Arg Arg
355 360 365

Glu Gln Arg Leu Arg Ser Arg Glu Glu Arg Leu Leu His Arg Ala Lys
370 375 380

Glu Ala Leu Pro Arg Glu Asp Ala Asp Glu Pro Gly Arg Val Pro Thr
385 390 395 400

Glu Asp Tyr Met Ser His Ile Ile Glu Lys Trp
405 410

<210> 81
<211> 464
<212> PRT
<213> Human

<400> 81

Met Thr Ser Cys Arg Cys Ser Val Thr Ser Arg Ser Leu Trp Pro Ala
1 5 10 15

Leu Ala Pro Arg Arg Cys Gln His Thr Ser Pro Ala Ser Ala Gln Cys
20 25 30

Lys Gln Asp Lys Ala Cys Arg Phe Leu Ala Ala Gln Lys Gly Ala Tyr
35 40 45

Pro Ile Ile Phe Thr Ala Trp Lys Leu Ala Thr Ala Gly Asp Gln Gly
50 55 60

Leu Leu Leu Gln Ser Leu Asn Ala Leu Ser Val Leu Thr Asp Gly Gln
65 70 75 80

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Pro Asp Leu Leu Asp Ala Gln Gly Leu Gln Leu Leu Val Ala Thr Leu
85 90 95

Thr Gln Asn Ala Asp Glu Ala Asp Leu Thr Cys Ser Gly Ile Arg Cys
100 105 110

Val Arg His Ala Cys Leu Lys His Glu Gln Asn Arg Gln Asp Leu Val
115 120 125

Lys Ala Gly Val Leu Pro Leu Leu Thr Gly Ala Ile Thr His His Gly
130 135 140

His His Thr Asp Val Val Arg Glu Ala Cys Trp Ala Leu Arg Val Met
145 150 155 160

Thr Phe Asp Asp Asp Ile Arg Val Pro Phe Gly His Ala His Asn His
165 170 175

Ala Lys Met Ile Val Gln Glu Asn Lys Gly Leu Lys Val Leu Ile Glu
180 185 190

Ala Thr Lys Ala Phe Leu Asp Asn Pro Gly Ile Leu Ser Glu Leu Cys
195 200 205

Gly Thr Leu Ser Arg Leu Ala Ile Arg Asn Glu Phe Cys Gln Glu Val
210 215 220

Val Asp Leu Gly Gly Leu Ser Ile Leu Val Ser Leu Leu Ala Asp Cys
225 230 235 240

Asn Asp His Gln Met Arg Asp Gln Ser Gly Val Gln Glu Leu Val Lys
245 250 255

Gln Val Leu Ser Thr Leu Arg Ala Ile Ala Gly Asn Asp Asp Val Lys
260 265 270

Asp Ala Ile Val Arg Ala Gly Gly Thr Glu Ser Ile Val Ala Ala Met
275 280 285

Thr Gln His Leu Thr Ser Pro Gln Val Cys Glu Gln Ser Cys Ala Ala
290 295 300

Leu Cys Phe Leu Ala Leu Arg Lys Pro Asp Asn Ser Arg Ile Ile Val
305 310 315 320

Glu Gly Gly Gly Ala Val Ala Ala Leu Gln Ala Met Lys Ala His Pro
325 330 335

Gln Lys Ala Gly Val Gln Lys Gln Ala Cys Met Leu Ile Arg Asn Leu
340 345 350

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Val Ala His Arg Pro Ser Arg Ser Pro Ser Trp Thr Trp Gly Leu Arg
355 360 365

His Ser Ser Cys Arg Pro Asp Leu Pro Thr Val Thr Val Arg Thr Trp
370 375 380

Pro Arg Pro Pro Cys Gly Thr Trp Val Val Met Ser Ser Ser Glu Ser
385 390 395 400

Cys Gly Gln Ala Arg Gly Ala Thr Trp Arg His Asp Pro Arg Pro Ser
405 410 415

Leu Val Thr Leu Gly Glu Ser Cys Asp Ser Gly Met Gly Val Asp Pro
420 425 430

Cys Pro Pro Leu Ser Pro Ile Ser Ser Val Pro Phe Thr Met Arg Ser
435 440 445

Val Phe Trp Gln Ala Leu Gly Lys Gly Ser Gly Glu Gly Gly Ala Leu
450 455 460

<210> 82
<211> 501
<212> PRT
<213> Human

<400> 82

Met Ser Glu Arg Cys Cys Ser Arg Tyr Ser Ser Gly Ala Ser Ile Gly
1 5 10 15

Cys Thr Pro Thr Ser Thr Gln Ala Lys Met Val Ser Lys Arg Ile Ala
20 25 30

Gln Glu Thr Phe Asp Ala Ala Val Arg Glu Asn Ile Glu Glu Phe Ala
35 40 45

Met Gly Pro Glu Glu Ala Val Lys Glu Ala Val Glu Gln Phe Glu Ser
50 55 60

Gln Gly Val Asp Leu Ser Asn Ile Val Lys Thr Ala Pro Lys Val Ser
65 70 75 80

Ala Asp Gly Ser Gln Glu Pro Thr His Asp Ile Leu Gln Met Leu Ser
85 90 95

Asp Leu Gln Glu Ser Val Ala Ser Ser Arg Pro Gln Glu Val Ser Ala
100 105 110

Tyr Leu Thr Arg Phe Cys Asp Gln Cys Lys Gln Asp Lys Ala Cys Arg
115 120 125

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Phe Leu Ala Ala Gln Lys Gly Ala Tyr Pro Ile Ile Phe Thr Ala Trp
130 135 140

Lys Leu Ala Thr Ala Gly Asp Gln Gly Leu Leu Leu Gln Ser Leu Asn
145 150 155 160

Ala Leu Ser Val Leu Thr Asp Gly Gln Pro Asp Leu Leu Asp Ala Gln
165 170 175

Gly Leu Gln Leu Leu Val Ala Thr Leu Thr Gln Asn Ala Asp Glu Ala
180 185 190

Asp Leu Thr Cys Ser Gly Ile Arg Cys Val Arg His Ala Cys Leu Lys
195 200 205

His Glu Gln Asn Arg Gln Asp Leu Val Lys Ala Gly Val Leu Pro Leu
210 215 220

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

Glu Ala Cys Trp Ala Leu Arg Val Met Thr Phe Asp Asp Asp Ile Arg
245 250 255

Val Pro Phe Gly His Ala His Asn His Ala Lys Met Ile Val Gln Glu
260 265 270

Asn Lys Gly Leu Lys Val Leu Ile Glu Ala Thr Lys Ala Phe Leu Asp
275 280 285

Asn Pro Gly Ile Leu Ser Glu Leu Cys Gly Thr Leu Ser Arg Leu Ala
290 295 300

Ile Arg Asn Glu Phe Cys Gln Glu Val Val Asp Leu Gly Gly Leu Ser
305 310 315 320

Ile Leu Val Ser Leu Leu Ala Asp Cys Asn Asp His Gln Met Arg Asp
325 330 335

Gln Ser Gly Val Gln Glu Leu Val Lys Gln Val Leu Ser Thr Leu Arg
340 345 350

Ala Ile Ala Gly Asn Asp Asp Val Lys Asp Ala Ile Val Arg Ala Gly
355 360 365

Gly Thr Glu Ser Ile Val Ala Ala Met Thr Gln His Leu Thr Ser Pro
370 375 380

Gln Val Cys Glu Gln Ser Cys Ala Ala Leu Cys Phe Leu Ala Leu Arg
385 390 395 400

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Lys Pro Asp Asn Ser Arg Ile Ile Val Glu Gly Gly Gly Ala Val Ala
405 410 415

Ala Leu Gln Ala Met Lys Ala His Pro Gln Lys Ala Gly Val Gln Lys
420 425 430

Gln Ala Cys Met Leu Ile Arg Asn Leu Val Ala His Gly Gln Ala Phe
435 440 445

Ser Lys Pro Ile Leu Asp Leu Gly Ala Glu Ala Leu Ile Met Gln Ala
450 455 460

Arg Ser Ala His Arg Asp Cys Glu Asp Val Ala Lys Ala Ala Leu Arg
465 470 475 480

Asp Leu Gly Cys His Val Glu Leu Arg Glu Leu Trp Thr Gly Gln Arg
485 490 495

Gly Asn Leu Ala Pro
500

<210> 83
<211> 476
<212> PRT
<213> Human

<400> 83

Met Val Ser Lys Arg Ile Ala Gln Glu Thr Phe Asp Ala Ala Val Arg
1 5 10 15

Glu Asn Ile Glu Glu Phe Ala Met Gly Pro Glu Glu Ala Val Lys Glu
20 25 30

Ala Val Glu Gln Phe Glu Ser Gln Gly Val Asp Leu Ser Asn Ile Val
35 40 45

Lys Thr Ala Pro Lys Val Ser Ala Asp Gly Ser Gln Glu Pro Thr His
50 55 60

Asp Ile Leu Gln Met Leu Ser Asp Leu Gln Glu Ser Val Ala Ser Ser
65 70 75 80

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

Lys Gln Asp Lys Ala Cys Arg Phe Leu Ala Ala Gln Lys Gly Ala Tyr
100 105 110

Pro Ile Ile Phe Thr Ala Trp Lys Leu Ala Thr Ala Gly Asp Gln Gly
115 120 125

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Leu 130 Leu Gln Ser Leu Asn 135 Ala Leu Ser Val 140 Leu Thr Asp Gly Gln
 Pro 145 Asp Leu Leu Asp Ala 150 Gln Gly Leu Gln Leu 155 Leu Val Ala Thr Leu 160
 Thr Gln Asn Ala Asp 165 Glu Ala Asp Leu Thr 170 Cys Ser Gly Ile Arg Cys 175
 Val Arg His Ala 180 Cys Leu Lys His Glu 185 Gln Asn Arg Gln Asp 190 Leu Val
 Lys Ala Gly 195 Val Leu Pro Leu 200 Thr Gly Ala Ile Thr 205 His His Gly
 His 210 His Thr Asp Val Val Arg 215 Glu Ala Cys Trp Ala 220 Leu Arg Val Met
 Thr 225 Phe Asp Asp Asp Ile 230 Arg Val Pro Phe Gly 235 His Ala His Asn His 240
 Ala Lys Met Ile Val 245 Gln Glu Asn Lys Gly 250 Leu Lys Val Leu Ile Glu 255
 Ala Thr Lys Ala 260 Phe Leu Asp Asn Pro Gly Ile Leu Ser Glu 270 Leu Cys
 Gly Thr Leu 275 Ser Arg Leu Ala Ile 280 Arg Asn Glu Phe Cys 285 Gln Glu Val
 Val Asp 290 Leu Gly Gly Leu Ser 295 Ile Leu Val Ser Leu 300 Leu Ala Asp Cys
 Asn 305 Asp His Gln Met Arg 310 Asp Gln Ser Gly Val 315 Gln Glu Leu Val Lys 320
 Gln Val Leu Ser Thr 325 Leu Arg Ala Ile Ala 330 Gly Asn Asp Asp Val 335 Lys
 Asp Ala Ile Val 340 Arg Ala Gly Gly Thr 345 Glu Ser Ile Val Ala Ala Met
 Thr Gln His 355 Leu Thr Ser Pro Gln 360 Val Cys Glu Gln Ser 365 Cys Ala Ala
 Leu Cys 370 Phe Leu Ala Leu Arg 375 Lys Pro Asp Asn Ser 380 Arg Ile Ile Val
 Glu 385 Gly Gly Gly Ala Val 390 Ala Ala Leu Gln Ala 395 Met Lys Ala His Pro 400

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Gln Lys Ala Gly Val Gln Lys Gln Ala Cys Met Leu Ile Arg Asn Leu
405 410 415

Val Ala His Gly Gln Ala Phe Ser Lys Pro Ile Leu Asp Leu Gly Ala
420 425 430

Glu Ala Leu Ile Met Gln Ala Arg Ser Ala His Arg Asp Cys Glu Asp
435 440 445

Val Ala Lys Ala Ala Leu Arg Asp Leu Gly Cys His Val Glu Leu Arg
450 455 460

Glu Leu Trp Thr Gly Gln Arg Gly Asn Leu Ala Pro
465 470 475

<210> 84
<211> 476
<212> PRT
<213> Human

<400> 84

Met Val Ser Lys Arg Ile Ala Gln Glu Thr Phe Asp Ala Ala Val Arg
1 5 10 15

Glu Asn Ile Glu Glu Phe Ala Met Gly Pro Glu Glu Ala Val Lys Glu
20 25 30

Ala Val Glu Gln Phe Glu Ser Gln Gly Val Asp Leu Ser Asn Ile Val
35 40 45

Lys Thr Ala Pro Lys Val Ser Ala Asp Gly Ser Gln Glu Pro Thr His
50 55 60

Asp Ile Leu Gln Met Leu Ser Asp Leu Gln Glu Ser Val Ala Ser Ser
65 70 75 80

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

Lys Gln Asp Lys Ala Cys Arg Phe Leu Ala Ala Gln Lys Gly Ala Tyr
100 105 110

Pro Ile Ile Phe Thr Ala Trp Lys Leu Ala Thr Ala Gly Asp Gln Gly
115 120 125

Leu Leu Leu Gln Ser Leu Asn Ala Leu Ser Val Leu Thr Asp Gly Gln
130 135 140

Pro Asp Leu Leu Asp Ala Gln Gly Leu Gln Leu Leu Val Ala Thr Leu
145 150 155 160

Thr Gln Asn Ala Asp Glu Ala Asp Leu Thr Cys Ser Gly Ile Arg Cys
Seite 104

165 2282743 175
 170
 Val Arg His Ala Cys Leu Lys His Glu Gln Asn Arg Gln Asp Leu Val
 180 185 190
 Lys Ala Gly Val Leu Pro Leu Leu Thr Gly Ala Ile Thr His His Gly
 195 200 205
 His His Thr Asp Val Val Arg Glu Ala Cys Trp Ala Leu Arg Val Met
 210 215 220
 Thr Phe Asp Asp Asp Ile Arg Val Pro Phe Gly His Ala His Asn His
 225 230 235 240
 Ala Lys Met Ile Val Gln Glu Asn Lys Gly Leu Lys Val Leu Ile Glu
 245 250 255
 Ala Thr Lys Ala Phe Leu Asp Asn Pro Gly Ile Leu Ser Glu Leu Cys
 260 265 270
 Gly Thr Leu Ser Arg Leu Ala Ile Arg Asn Glu Phe Cys Gln Glu Val
 275 280 285
 Val Asp Leu Gly Gly Leu Ser Ile Leu Val Ser Leu Leu Ala Asp Cys
 290 295 300
 Asn Asp His Gln Met Arg Asp Gln Ser Gly Val Gln Glu Leu Val Lys
 305 310 315 320
 Gln Val Leu Ser Thr Leu Arg Ala Ile Ala Gly Asn Asp Asp Val Lys
 325 330 335
 Asp Ala Ile Val Arg Ala Gly Gly Thr Glu Ser Ile Val Ala Ala Met
 340 345 350
 Thr Gln His Leu Thr Ser Pro Gln Val Cys Glu Gln Ser Cys Ala Ala
 355 360 365
 Leu Cys Phe Leu Ala Leu Arg Lys Pro Asp Asn Ser Arg Ile Ile Val
 370 375 380
 Glu Gly Gly Gly Ala Val Ala Ala Leu Gln Ala Met Lys Ala His Pro
 385 390 395 400
 Gln Lys Ala Gly Val Gln Lys Gln Ala Cys Met Leu Ile Arg Asn Leu
 405 410 415
 Val Ala His Gly Gln Ala Phe Ser Lys Pro Ile Leu Asp Leu Gly Ala
 420 425 430
 Glu Ala Leu Ile Met Gln Ala Arg Ser Ala His Arg Asp Cys Glu Asp

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435

440

445

Val Ala Lys Ala Ala Leu Arg Asp Leu Gly Cys His Val Glu Leu Arg
450 455 460

Glu Leu Trp Thr Gly Gln Arg Gly Asn Leu Ala Pro
465 470 475

<210> 85
<211> 590
<212> PRT
<213> Human

<400> 85

Met Ala Gly Ala Val Pro Gly Ala Ile Met Asp Glu Asp Tyr Tyr Gly
1 5 10 15

Ser Ala Ala Glu Trp Gly Asp Glu Ala Asp Gly Gly Gln Gln Glu Asp
20 25 30

Asp Ser Gly Glu Gly Glu Asp Asp Ala Glu Val Gln Gln Glu Cys Leu
35 40 45

His Lys Phe Ser Thr Arg Asp Tyr Ile Met Glu Pro Ser Ile Phe Asn
50 55 60

Thr Leu Lys Arg Tyr Phe Gln Ala Gly Gly Ser Pro Glu Asn Val Ile
65 70 75 80

Gln Leu Leu Ser Glu Asn Tyr Thr Ala Val Ala Gln Thr Val Asn Leu
85 90 95

Leu Ala Glu Trp Leu Ile Gln Thr Gly Val Glu Pro Val Gln Val Gln
100 105 110

Glu Thr Val Glu Asn His Leu Lys Ser Leu Leu Ile Lys His Phe Asp
115 120 125

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

Trp Leu Glu Gln Met Ile Ala His Thr Thr Trp Arg Asp Leu Phe Tyr
145 150 155 160

Lys Leu Ala Glu Ala His Pro Asp Cys Leu Met Leu Asn Phe Thr Val
165 170 175

Lys Leu Ile Ser Asp Ala Gly Tyr Gln Gly Glu Ile Thr Ser Val Ser
180 185 190

Thr Ala Cys Gln Gln Leu Glu Val Phe Ser Arg Val Leu Arg Thr Ser
195 200 205

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Leu Ala Thr Ile Leu Asp Gly Gly Glu Glu Asn Leu Glu Lys Asn Leu
 210 215 220
 Pro Glu Phe Ala Lys Met Val Cys His Gly Glu His Thr Tyr Leu Phe
 225 230 235 240
 Ala Gln Ala Met Met Ser Val Leu Ala Gln Glu Glu Gln Gly Gly Ser
 245 250 255
 Ala Val Arg Arg Ile Ala Gln Glu Val Gln Arg Phe Ala Gln Glu Lys
 260 265 270
 Gly His Asp Ala Ser Gln Ile Thr Leu Ala Leu Gly Thr Ala Ala Ser
 275 280 285
 Tyr Pro Arg Ala Cys Gln Ala Leu Gly Ala Met Leu Ser Lys Gly Ala
 290 295 300
 Leu Asn Pro Ala Asp Ile Thr Val Leu Phe Lys Met Phe Thr Ser Met
 305 310 315 320
 Asp Pro Pro Pro Val Glu Leu Ile Arg Val Pro Ala Phe Leu Asp Leu
 325 330 335
 Phe Met Gln Ser Leu Phe Lys Pro Gly Ala Arg Ile Asn Gln Asp His
 340 345 350
 Lys His Lys Tyr Ile His Ile Leu Ala Tyr Ala Ala Ser Val Val Glu
 355 360 365
 Thr Trp Lys Lys Asn Lys Arg Val Ser Ile Asn Lys Asp Glu Leu Lys
 370 375 380
 Ser Thr Ser Lys Ala Val Glu Thr Val His Asn Leu Cys Cys Asn Glu
 385 390 395 400
 Asn Lys Gly Ala Ser Glu Leu Val Ala Glu Leu Ser Thr Leu Tyr Gln
 405 410 415
 Cys Ile Arg Phe Pro Val Val Ala Met Gly Val Leu Lys Trp Val Asp
 420 425 430
 Trp Thr Val Ser Glu Pro Arg Tyr Phe Gln Leu Gln Thr Asp His Thr
 435 440 445
 Pro Val His Leu Ala Leu Leu Asp Glu Ile Ser Thr Cys His Gln Leu
 450 455 460
 Leu His Pro Gln Val Leu Gln Leu Leu Val Lys Leu Phe Glu Thr Glu
 465 470 475 480

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His Ser Gln Leu Asp Val Met Glu Gln Leu Glu Leu Lys Lys Thr Leu
485 490 495

Leu Asp Arg Met Val His Leu Leu Ser Arg Gly Tyr Val Leu Pro Val
500 505 510

Val Ser Tyr Ile Arg Lys Cys Leu Glu Lys Leu Asp Thr Asp Ile Ser
515 520 525

Leu Ile Arg Tyr Phe Val Thr Glu Val Leu Asp Val Ile Ala Pro Pro
530 535 540

Tyr Thr Ser Asp Phe Val Gln Leu Phe Leu Pro Ile Leu Glu Asn Asp
545 550 555 560

Ser Ile Ala Gly Thr Ile Lys Thr Glu Gly Glu His Asp Pro Val Thr
565 570 575

Glu Phe Ile Ala His Cys Lys Ser Asn Phe Ile Met Val Asn
580 585 590

<210> 86
<211> 250
<212> PRT
<213> Human

<400> 86

Met Ala Met Leu Arg Val Gln Pro Glu Ala Gln Ala Lys Val Asp Val
1 5 10 15

Phe Arg Glu Asp Leu Cys Thr Lys Thr Glu Asn Leu Leu Gly Ser Tyr
20 25 30

Phe Pro Lys Lys Ile Ser Glu Leu Asp Ala Phe Leu Lys Glu Pro Ala
35 40 45

Leu Asn Glu Ala Asn Leu Ser Asn Leu Lys Ala Pro Leu Asp Ile Pro
50 55 60

Val Pro Asp Pro Val Lys Glu Lys Glu Lys Glu Glu Arg Lys Lys Gln
65 70 75 80

Gln Glu Lys Glu Asp Lys Asp Glu Lys Lys Lys Gly Glu Asp Glu Asp
85 90 95

Lys Gly Pro Pro Cys Gly Pro Val Asn Cys Asn Glu Lys Ile Val Val
100 105 110

Leu Leu Gln Arg Leu Lys Pro Glu Ile Lys Asp Val Ile Glu Gln Leu
115 120 125

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Asn Leu Val Thr Thr Trp Leu Gln Leu Gln Ile Pro Arg Ile Glu Asp
130 135 140

Gly Asn Asn Phe Gly Val Ala Val Gln Glu Lys Val Phe Glu Leu Met
145 150 155 160

Thr Ser Leu His Thr Lys Leu Glu Gly Phe His Thr Gln Ile Ser Lys
165 170 175

Tyr Phe Ser Glu Arg Gly Asp Ala Val Thr Lys Ala Ala Lys Gln Pro
180 185 190

His Val Gly Asp Tyr Arg Gln Leu Val His Glu Leu Asp Glu Ala Glu
195 200 205

Tyr Arg Asp Ile Arg Leu Met Val Met Glu Ile Arg Asn Ala Tyr Val
210 215 220

Arg Arg Gln Gly Gln Gly Arg Gly Gly Gln Arg Gln Leu Ser Gln Ala
225 230 235 240

Thr His Ser Leu Thr Leu Gln Ala Arg Gly
245 250

<210> 87
<211> 249
<212> PRT
<213> Human

<400> 87

Met Ala Met Leu Arg Val Gln Pro Glu Ala Gln Ala Lys Val Asp Val
1 5 10 15

Phe Arg Glu Asp Leu Cys Thr Lys Thr Glu Asn Leu Leu Gly Ser Tyr
20 25 30

Phe Pro Lys Lys Ile Ser Glu Leu Asp Ala Phe Leu Lys Glu Pro Ala
35 40 45

Leu Asn Glu Ala Asn Leu Ser Asn Leu Lys Ala Pro Leu Asp Ile Pro
50 55 60

Val Pro Asp Pro Val Lys Glu Lys Glu Lys Glu Glu Arg Lys Lys Gln
65 70 75 80

Gln Glu Lys Glu Asp Lys Asp Glu Lys Lys Lys Gly Glu Asp Glu Asp
85 90 95

Lys Gly Pro Pro Cys Gly Pro Val Asn Cys Asn Glu Lys Ile Val Val
100 105 110

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Leu Leu Gln Arg Leu Lys Pro Glu Ile Lys Asp Val Ile Glu Gln Leu
115 120 125

Asn Leu Val Thr Thr Trp Leu Gln Leu Gln Ile Pro Arg Ile Glu Asp
130 135 140

Gly Asn Asn Phe Gly Val Ala Val Gln Glu Lys Val Phe Glu Leu Met
145 150 155 160

Thr Ser Leu His Thr Lys Leu Glu Gly Phe His Thr Gln Ile Ser Lys
165 170 175

Tyr Phe Ser Glu Arg Gly Asp Ala Val Thr Lys Ala Ala Lys Gln Pro
180 185 190

His Val Gly Asp Tyr Arg Gln Leu Val His Glu Leu Asp Glu Ala Glu
195 200 205

Tyr Arg Asp Ile Arg Leu Met Val Met Glu Ile Arg Asn Ala Tyr Ala
210 215 220

Val Leu Tyr Asp Ile Ile Leu Lys Asn Phe Glu Lys Leu Lys Lys Pro
225 230 235 240

Arg Gly Glu Thr Lys Gly Met Ile Tyr
245

<210> 88
<211> 558
<212> PRT
<213> Human

<400> 88

Met Glu Leu Arg Ala Arg Gly Trp Trp Leu Leu Cys Ala Ala Ala Ala
1 5 10 15

Leu Val Ala Cys Ala Arg Gly Asp Pro Ala Ser Lys Ser Arg Ser Cys
20 25 30

Gly Glu Val Arg Gln Ile Tyr Gly Ala Lys Gly Phe Ser Leu Ser Asp
35 40 45

Val Pro Gln Ala Glu Ile Ser Gly Glu His Leu Arg Ile Cys Pro Gln
50 55 60

Gly Tyr Thr Cys Cys Thr Ser Glu Met Glu Glu Asn Leu Ala Asn Arg
65 70 75 80

Ser His Ala Glu Leu Glu Thr Ala Leu Arg Asp Ser Ser Arg Val Leu
85 90 95

Gln Ala Met Leu Ala Thr Gln Leu Arg Ser Phe Asp Asp His Phe Gln
Seite 110

100

105

110

His Leu Leu Asn Asp Ser Glu Arg Thr Leu Gln Ala Thr Phe Pro Gly
 115 120 125
 Ala Phe Gly Glu Leu Tyr Thr Gln Asn Ala Arg Ala Phe Arg Asp Leu
 130 135 140
 Tyr Ser Glu Leu Arg Leu Tyr Tyr Arg Gly Ala Asn Leu His Leu Glu
 145 150 155 160
 Glu Thr Leu Ala Glu Phe Trp Ala Arg Leu Leu Glu Arg Leu Phe Lys
 165 170 175
 Gln Leu His Pro Gln Leu Leu Leu Pro Asp Asp Tyr Leu Asp Cys Leu
 180 185 190
 Gly Lys Gln Ala Glu Ala Leu Arg Pro Phe Gly Glu Ala Pro Arg Glu
 195 200 205
 Leu Arg Leu Arg Ala Thr Arg Ala Phe Val Ala Ala Arg Ser Phe Val
 210 215 220
 Gln Gly Leu Gly Val Ala Ser Asp Val Val Arg Lys Val Ala Gln Val
 225 230 235 240
 Pro Leu Gly Pro Glu Cys Ser Arg Ala Val Met Lys Leu Val Tyr Cys
 245 250 255
 Ala His Cys Leu Gly Val Pro Gly Ala Arg Pro Cys Pro Asp Tyr Cys
 260 265 270
 Arg Asn Val Leu Lys Gly Cys Leu Ala Asn Gln Ala Asp Leu Asp Ala
 275 280 285
 Glu Trp Arg Asn Leu Leu Asp Ser Met Val Leu Ile Thr Asp Lys Phe
 290 295 300
 Trp Gly Thr Ser Gly Val Glu Ser Val Ile Gly Ser Val His Thr Trp
 305 310 315 320
 Leu Ala Glu Ala Ile Asn Ala Leu Gln Asp Asn Arg Asp Thr Leu Thr
 325 330 335
 Ala Lys Val Ile Gln Gly Cys Gly Asn Pro Lys Val Asn Pro Gln Gly
 340 345 350
 Pro Gly Pro Glu Glu Lys Arg Arg Arg Gly Lys Leu Ala Pro Arg Glu
 355 360 365
 Arg Pro Pro Ser Gly Thr Leu Glu Lys Leu Val Ser Glu Ala Lys Ala

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370

375

380

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

Cys Ser Glu Lys Met Ala Leu Ser Thr Ala Ser Asp Asp Arg Cys Trp
405 410 415

Asn Gly Met Ala Arg Gly Arg Tyr Leu Pro Glu Val Met Gly Asp Gly
420 425 430

Leu Ala Asn Gln Ile Asn Asn Pro Glu Val Glu Val Asp Ile Thr Lys
435 440 445

Pro Asp Met Thr Ile Arg Gln Gln Ile Met Gln Leu Lys Ile Met Thr
450 455 460

Asn Arg Leu Arg Ser Ala Tyr Asn Gly Asn Asp Val Asp Phe Gln Asp
465 470 475 480

Ala Ser Asp Asp Gly Ser Gly Ser Gly Ser Gly Asp Gly Cys Leu Asp
485 490 495

Asp Leu Cys Ser Arg Lys Val Ser Arg Lys Ser Ser Ser Ser Arg Thr
500 505 510

Pro Leu Thr His Ala Leu Pro Gly Leu Ser Glu Gln Glu Gly Gln Lys
515 520 525

Thr Ser Ala Ala Ser Cys Pro Gln Pro Pro Thr Phe Leu Leu Pro Leu
530 535 540

Leu Leu Phe Leu Ala Leu Thr Val Ala Arg Pro Arg Trp Arg
545 550 555

<210> 89
<211> 1214
<212> PRT
<213> Human

<400> 89

Met Ala Ser Cys Ala Ser Ile Asp Ile Glu Asp Ala Thr Gln His Leu
1 5 10 15

Arg Asp Ile Leu Lys Leu Asp Arg Pro Ala Gly Gly Pro Ser Ala Glu
20 25 30

Ser Pro Arg Pro Ser Ser Ala Tyr Asn Gly Asp Leu Asn Gly Leu Leu
35 40 45

Val Pro Asp Pro Leu Cys Ser Gly Asp Ser Thr Ser Ala Asn Lys Thr
50 55 60

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Gly Leu Arg Thr Met Pro Pro Ile Asn Leu Gln Glu Lys Gln Val Ile
65 70 75 80

Cys Leu Ser Gly Asp Asp Ser Ser Thr Cys Ile Gly Ile Leu Ala Lys
85 90 95

Glu Val Glu Ile Val Ala Ser Ser Asp Ser Ser Ile Ser Ser Lys Ala
100 105 110

Arg Gly Ser Asn Lys Val Lys Ile Gln Pro Val Ala Lys Tyr Asp Trp
115 120 125

Glu Gln Lys Tyr Tyr Tyr Gly Asn Leu Ile Ala Val Ser Asn Ser Phe
130 135 140

Leu Ala Tyr Ala Ile Arg Ala Ala Asn Asn Gly Ser Ala Met Val Arg
145 150 155 160

Val Ile Ser Val Ser Thr Ser Glu Arg Thr Leu Leu Lys Gly Phe Thr
165 170 175

Gly Ser Val Ala Asp Leu Ala Phe Ala His Leu Asn Ser Pro Gln Leu
180 185 190

Ala Cys Leu Asp Glu Ala Gly Asn Leu Phe Val Trp Arg Leu Ala Leu
195 200 205

Val Asn Gly Lys Ile Gln Glu Glu Ile Leu Val His Ile Arg Gln Pro
210 215 220

Glu Gly Thr Pro Leu Asn His Phe Arg Arg Ile Ile Trp Cys Pro Phe
225 230 235 240

Ile Pro Glu Glu Ser Glu Asp Cys Cys Glu Glu Ser Ser Pro Thr Val
245 250 255

Ala Leu Leu His Glu Asp Arg Ala Glu Val Trp Asp Leu Asp Met Leu
260 265 270

Arg Ser Ser His Ser Thr Trp Pro Val Asp Val Ser Gln Ile Lys Gln
275 280 285

Gly Phe Ile Val Val Lys Gly His Ser Thr Cys Leu Ser Glu Gly Ala
290 295 300

Leu Ser Pro Asp Gly Thr Val Leu Ala Thr Ala Ser His Asp Gly Tyr
305 310 315 320

Val Lys Phe Trp Gln Ile Tyr Ile Glu Gly Gln Asp Glu Pro Arg Cys
325 330 335

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Leu His Glu Trp Lys Pro His Asp Gly Arg Pro Leu Ser Cys Leu Leu
340 345 350

Phe Cys Asp Asn His Lys Lys Gln Asp Pro Asp Val Pro Phe Trp Arg
355 360 365

Phe Leu Ile Thr Gly Ala Asp Gln Asn Arg Glu Leu Lys Met Trp Cys
370 375 380

Thr Val Ser Trp Thr Cys Leu Gln Thr Ile Arg Phe Ser Pro Asp Ile
385 390 395 400

Phe Ser Ser Val Ser Val Pro Pro Ser Leu Lys Val Cys Leu Asp Leu
405 410 415

Ser Ala Glu Tyr Leu Ile Leu Ser Asp Val Gln Arg Lys Val Leu Tyr
420 425 430

Val Met Glu Leu Leu Gln Asn Gln Glu Glu Gly His Ala Cys Phe Ser
435 440 445

Ser Ile Ser Glu Phe Leu Leu Thr His Pro Val Leu Ser Phe Gly Ile
450 455 460

Gln Val Val Ser Arg Cys Arg Leu Arg His Thr Glu Val Leu Pro Ala
465 470 475 480

Glu Glu Glu Asn Asp Ser Leu Gly Ala Asp Gly Thr His Gly Ala Gly
485 490 495

Ala Met Glu Ser Ala Ala Gly Val Leu Ile Lys Leu Phe Cys Val His
500 505 510

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

Pro Asp Val Val Ala Pro Leu Pro Thr His Thr Ala His Glu Asp Phe
530 535 540

Thr Phe Gly Glu Ser Arg Pro Glu Leu Gly Ser Glu Gly Leu Gly Ser
545 550 555 560

Ala Ala His Gly Ser Gln Pro Asp Leu Arg Arg Ile Val Glu Leu Pro
565 570 575

Ala Pro Ala Asp Phe Leu Ser Leu Ser Ser Glu Thr Lys Pro Lys Leu
580 585 590

Met Thr Pro Asp Ala Phe Met Thr Pro Ser Ala Ser Leu Gln Gln Ile
595 600 605

Thr Ala Ser Pro Ser Ser Ser Ser Ser Gly Ser Ser Ser Ser Ser
 610 615 620
 Ser Ser Ser Ser Ser Leu Thr Ala Val Ser Ala Met Ser Ser Thr Ser
 625 630 635 640
 Ala Val Asp Pro Ser Leu Thr Arg Pro Pro Glu Glu Leu Thr Leu Ser
 645 650 655
 Pro Lys Leu Gln Leu Asp Gly Ser Leu Thr Met Ser Ser Ser Gly Ser
 660 665 670
 Leu Gln Ala Ser Pro Arg Gly Leu Leu Pro Gly Leu Leu Pro Ala Pro
 675 680 685
 Ala Asp Lys Leu Thr Pro Lys Gly Pro Gly Gln Val Pro Thr Ala Thr
 690 695 700
 Ser Ala Leu Ser Leu Glu Leu Gln Glu Val Glu Pro Leu Gly Leu Pro
 705 710 715 720
 Gln Ala Ser Pro Ser Arg Thr Arg Ser Pro Asp Val Ile Ser Ser Ala
 725 730 735
 Ser Thr Ala Leu Ser Gln Asp Ile Pro Glu Ile Ala Ser Glu Ala Leu
 740 745 750
 Ser Arg Gly Phe Gly Ser Ser Ala Pro Glu Gly Leu Glu Pro Asp Ser
 755 760 765
 Met Ala Ser Ala Ala Ser Ala Leu His Leu Leu Ser Pro Arg Pro Arg
 770 775 780
 Pro Gly Pro Glu Leu Gly Pro Gln Leu Gly Leu Asp Gly Gly Pro Gly
 785 790 795 800
 Asp Gly Asp Arg His Asn Thr Pro Ser Leu Leu Glu Ala Ala Leu Thr
 805 810 815
 Gln Glu Ala Ser Thr Pro Asp Ser Gln Val Trp Pro Thr Ala Pro Asp
 820 825 830
 Ile Thr Arg Glu Thr Cys Ser Thr Leu Ala Glu Ser Pro Arg Asn Gly
 835 840 845
 Leu Gln Glu Lys His Lys Ser Leu Ala Phe His Arg Pro Pro Tyr His
 850 855 860
 Leu Leu Gln Gln Arg Asp Ser Gln Asp Ala Ser Ala Glu Gln Ser Asp
 865 870 875 880

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His Asp Asp Glu Val Ala Ser Leu Ala Ser Ala Ser Gly Gly Phe Gly
885 890 895

Thr Lys Val Pro Ala Pro Arg Leu Pro Ala Lys Asp Trp Lys Thr Lys
900 905 910

Gly Ser Pro Arg Thr Ser Pro Lys Leu Lys Arg Lys Ser Lys Lys Asp
915 920 925

Asp Gly Asp Ala Ala Met Gly Ser Arg Leu Thr Glu His Gln Val Ala
930 935 940

Glu Pro Pro Glu Asp Trp Pro Ala Leu Ile Trp Gln Gln Gln Arg Glu
945 950 955 960

Leu Ala Glu Leu Arg His Ser Gln Glu Glu Leu Leu Gln Arg Leu Cys
965 970 975

Thr Gln Leu Glu Gly Leu Gln Ser Thr Val Thr Gly His Val Glu Arg
980 985 990

Ala Leu Glu Thr Arg His Glu Gln Glu Gln Arg Arg Leu Glu Arg Ala
995 1000 1005

Leu Ala Glu Gly Gln Gln Arg Gly Gly Gln Leu Gln Glu Gln Leu
1010 1015 1020

Thr Gln Gln Leu Ser Gln Ala Leu Ser Ser Ala Val Ala Gly Arg
1025 1030 1035

Leu Glu Arg Ser Ile Arg Asp Glu Ile Lys Lys Thr Val Pro Pro
1040 1045 1050

Cys Val Ser Arg Ser Leu Glu Pro Met Ala Gly Gln Leu Ser Asn
1055 1060 1065

Ser Val Ala Thr Lys Leu Thr Ala Val Glu Gly Ser Met Lys Glu
1070 1075 1080

Asn Ile Ser Lys Leu Leu Lys Ser Lys Asn Leu Thr Asp Ala Ile
1085 1090 1095

Ala Arg Ala Ala Ala Asp Thr Leu Gln Gly Pro Met Gln Ala Ala
1100 1105 1110

Tyr Arg Glu Ala Phe Gln Ser Val Val Leu Pro Ala Phe Glu Lys
1115 1120 1125

Ser Cys Gln Ala Met Phe Gln Gln Ile Asn Asp Ser Phe Arg Leu
1130 1135 1140

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Gly Thr Gln Glu Tyr Leu Gln Gln Leu Glu Ser His Met Lys Ser
1145 1150 1155

Arg Lys Ala Arg Glu Gln Glu Ala Arg Glu Pro Val Leu Ala Gln
1160 1165 1170

Leu Arg Gly Leu Val Ser Thr Leu Gln Ser Ala Thr Glu Gln Met
1175 1180 1185

Pro Pro Trp Pro Ala Val Phe Val Leu Arg Cys Ser Thr Ser Cys
1190 1195 1200

Met Trp Leu Trp Ala Ala Cys Arg Ser Pro Phe
1205 1210

<210> 90
<211> 1401
<212> PRT
<213> Human

<400> 90

Met Ala Ser Cys Ala Ser Ile Asp Ile Glu Asp Ala Thr Gln His Leu
1 5 10 15

Arg Asp Ile Leu Lys Leu Asp Arg Pro Ala Gly Gly Pro Ser Ala Glu
20 25 30

Ser Pro Arg Pro Ser Ser Ala Tyr Asn Gly Asp Leu Asn Gly Leu Leu
35 40 45

Val Pro Asp Pro Leu Cys Ser Gly Asp Ser Thr Ser Ala Asn Lys Thr
50 55 60

Gly Leu Arg Thr Met Pro Pro Ile Asn Leu Gln Glu Lys Gln Val Ile
65 70 75 80

Cys Leu Ser Gly Asp Asp Ser Ser Thr Cys Ile Gly Ile Leu Ala Lys
85 90 95

Glu Val Glu Ile Val Ala Ser Ser Asp Ser Ser Ile Ser Ser Lys Ala
100 105 110

Arg Gly Ser Asn Lys Val Lys Ile Gln Pro Val Ala Lys Tyr Asp Trp
115 120 125

Glu Gln Lys Tyr Tyr Tyr Gly Asn Leu Ile Ala Val Ser Asn Ser Phe
130 135 140

Leu Ala Tyr Ala Ile Arg Ala Ala Asn Asn Gly Ser Ala Met Val Arg
145 150 155 160

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Val Ile Ser Val Ser Thr Ser Glu Arg Thr Leu Leu Lys Gly Phe Thr
165 170 175

Gly Ser Val Ala Asp Leu Ala Phe Ala His Leu Asn Ser Pro Gln Leu
180 185 190

Ala Cys Leu Asp Glu Ala Gly Asn Leu Phe Val Trp Arg Leu Ala Leu
195 200 205

Val Asn Gly Lys Ile Gln Glu Glu Ile Leu Val His Ile Arg Gln Pro
210 215 220

Glu Gly Thr Pro Leu Asn His Phe Arg Arg Ile Ile Trp Cys Pro Phe
225 230 235 240

Ile Pro Glu Glu Ser Glu Asp Cys Cys Glu Glu Ser Ser Pro Thr Val
245 250 255

Ala Leu Leu His Glu Asp Arg Ala Glu Val Trp Asp Leu Asp Met Leu
260 265 270

Arg Ser Ser His Ser Thr Trp Pro Val Asp Val Ser Gln Ile Lys Gln
275 280 285

Gly Phe Ile Val Val Lys Gly His Ser Thr Cys Leu Ser Glu Gly Ala
290 295 300

Leu Ser Pro Asp Gly Thr Val Leu Ala Thr Ala Ser His Asp Gly Tyr
305 310 315 320

Val Lys Phe Trp Gln Ile Tyr Ile Glu Gly Gln Asp Glu Pro Arg Cys
325 330 335

Leu His Glu Trp Lys Pro His Asp Gly Arg Pro Leu Ser Cys Leu Leu
340 345 350

Phe Cys Asp Asn His Lys Lys Gln Asp Pro Asp Val Pro Phe Trp Arg
355 360 365

Phe Leu Ile Thr Gly Ala Asp Gln Asn Arg Glu Leu Lys Met Trp Cys
370 375 380

Thr Val Ser Trp Thr Cys Leu Gln Thr Ile Arg Phe Ser Pro Asp Ile
385 390 395 400

Phe Ser Ser Val Ser Val Pro Pro Ser Leu Lys Val Cys Leu Asp Leu
405 410 415

Ser Ala Glu Tyr Leu Ile Leu Ser Asp Val Gln Arg Lys Val Leu Tyr
420 425 430

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Val Met Glu Leu Leu Gln Asn Gln Glu Glu Gly His Ala Cys Phe Ser
435 440 445

Ser Ile Ser Glu Phe Leu Leu Thr His Pro Val Leu Ser Phe Gly Ile
450 455 460

Gln Val Val Ser Arg Cys Arg Leu Arg His Thr Glu Val Leu Pro Ala
465 470 475 480

Glu Glu Glu Asn Asp Ser Leu Gly Ala Asp Gly Thr His Gly Ala Gly
485 490 495

Ala Met Glu Ser Ala Ala Gly Val Leu Ile Lys Leu Phe Cys Val His
500 505 510

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

Pro Asp Val Val Ala Pro Leu Pro Thr His Thr Ala His Glu Asp Phe
530 535 540

Thr Phe Gly Glu Ser Arg Pro Glu Leu Gly Ser Glu Gly Leu Gly Ser
545 550 555 560

Ala Ala His Gly Ser Gln Pro Asp Leu Arg Arg Ile Val Glu Leu Pro
565 570 575

Ala Pro Ala Asp Phe Leu Ser Leu Ser Ser Glu Thr Lys Pro Lys Leu
580 585 590

Met Thr Pro Asp Ala Phe Met Thr Pro Ser Ala Ser Leu Gln Gln Ile
595 600 605

Thr Ala Ser Pro Ser Ser Ser Ser Ser Gly Ser Ser Ser Ser Ser
610 615 620

Ser Ser Ser Ser Ser Leu Thr Ala Val Ser Ala Met Ser Ser Thr Ser
625 630 635 640

Ala Val Asp Pro Ser Leu Thr Arg Pro Pro Glu Glu Leu Thr Leu Ser
645 650 655

Pro Lys Leu Gln Leu Asp Gly Ser Leu Thr Met Ser Ser Ser Gly Ser
660 665 670

Leu Gln Ala Ser Pro Arg Gly Leu Leu Pro Gly Leu Leu Pro Ala Pro
675 680 685

Ala Asp Lys Leu Thr Pro Lys Gly Pro Gly Gln Val Pro Thr Ala Thr
690 695 700

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Ser Ala Leu Ser Leu Glu Leu Gln Glu Val Glu Pro Leu Gly Leu Pro
705 710 715 720

Gln Ala Ser Pro Ser Arg Thr Arg Ser Pro Asp Val Ile Ser Ser Ala
725 730 735

Ser Thr Ala Leu Ser Gln Asp Ile Pro Glu Ile Ala Ser Glu Ala Leu
740 745 750

Ser Arg Gly Phe Gly Ser Ser Ala Pro Glu Gly Leu Glu Pro Asp Ser
755 760 765

Met Ala Ser Ala Ala Ser Ala Leu His Leu Leu Ser Pro Arg Pro Arg
770 775 780

Pro Gly Pro Glu Leu Gly Pro Gln Leu Gly Leu Asp Gly Gly Pro Gly
785 790 795 800

Asp Gly Asp Arg His Asn Thr Pro Ser Leu Leu Glu Ala Ala Leu Thr
805 810 815

Gln Glu Ala Ser Thr Pro Asp Ser Gln Val Trp Pro Thr Ala Pro Asp
820 825 830

Ile Thr Arg Glu Thr Cys Ser Thr Leu Ala Glu Ser Pro Arg Asn Gly
835 840 845

Leu Gln Glu Lys His Lys Ser Leu Ala Phe His Arg Pro Pro Tyr His
850 855 860

Leu Leu Gln Gln Arg Asp Ser Gln Asp Ala Ser Ala Glu Gln Ser Asp
865 870 875 880

His Asp Asp Glu Val Ala Ser Leu Ala Ser Ala Ser Gly Gly Phe Gly
885 890 895

Thr Lys Val Pro Ala Pro Arg Leu Pro Ala Lys Asp Trp Lys Thr Lys
900 905 910

Gly Ser Pro Arg Thr Ser Pro Lys Leu Lys Arg Lys Ser Lys Lys Asp
915 920 925

Asp Gly Asp Ala Ala Met Gly Ser Arg Leu Thr Glu His Gln Val Ala
930 935 940

Glu Pro Pro Glu Asp Trp Pro Ala Leu Ile Trp Gln Gln Gln Arg Glu
945 950 955 960

Leu Ala Glu Leu Arg His Ser Gln Glu Glu Leu Leu Gln Arg Leu Cys
965 970 975

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Thr Gln Leu Glu Gly Leu Gln Ser Thr Val Thr Gly His Val Glu Arg
980 985 990

Ala Leu Glu Thr Arg His Glu Gln Glu Gln Arg Arg Leu Glu Arg Ala
995 1000 1005

Leu Ala Glu Gly Gln Gln Arg Gly Gly Gln Leu Gln Glu Gln Leu
1010 1015 1020

Thr Gln Gln Leu Ser Gln Ala Leu Ser Ser Ala Val Ala Gly Arg
1025 1030 1035

Leu Glu Arg Ser Ile Arg Asp Glu Ile Lys Lys Thr Val Pro Pro
1040 1045 1050

Cys Val Ser Arg Ser Leu Glu Pro Met Ala Gly Gln Leu Ser Asn
1055 1060 1065

Ser Val Ala Thr Lys Leu Thr Ala Val Glu Gly Ser Met Lys Glu
1070 1075 1080

Asn Ile Ser Lys Leu Leu Lys Ser Lys Asn Leu Thr Asp Ala Ile
1085 1090 1095

Ala Arg Ala Ala Ala Asp Thr Leu Gln Gly Pro Met Gln Ala Ala
1100 1105 1110

Tyr Arg Glu Ala Phe Gln Ser Val Val Leu Pro Ala Phe Glu Lys
1115 1120 1125

Ser Cys Gln Ala Met Phe Gln Gln Ile Asn Asp Ser Phe Arg Leu
1130 1135 1140

Gly Thr Gln Glu Tyr Leu Gln Gln Leu Glu Ser His Met Lys Ser
1145 1150 1155

Arg Lys Ala Arg Glu Gln Glu Ala Arg Glu Pro Val Leu Ala Gln
1160 1165 1170

Leu Arg Gly Leu Val Ser Thr Leu Gln Ser Ala Thr Glu Gln Met
1175 1180 1185

Ala Ala Thr Val Ala Gly Ser Val Arg Ala Glu Val Gln His Gln
1190 1195 1200

Leu His Val Ala Val Gly Ser Leu Gln Glu Ser Ile Leu Ala Gln
1205 1210 1215

Val Gln Arg Ile Val Lys Gly Glu Val Ser Val Ala Leu Lys Glu
1220 1225 1230

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Gln Gln Ala Ala Val Thr Ser Ser Ile Met Gln Ala Met Arg Ser
1235 1240 1245

Ala Ala Gly Thr Pro Val Pro Ser Ala His Leu Asp Cys Gln Ala
1250 1255 1260

Gln Gln Ala His Ile Leu Gln Leu Leu Gln Gln Gly His Leu Asn
1265 1270 1275

Gln Ala Phe Gln Gln Ala Leu Thr Ala Ala Asp Leu Asn Leu Val
1280 1285 1290

Leu Tyr Val Cys Glu Thr Val Asp Pro Ala Gln Val Phe Gly Gln
1295 1300 1305

Pro Pro Cys Pro Leu Ser Gln Pro Val Leu Leu Ser Leu Ile Gln
1310 1315 1320

Gln Leu Ala Ser Asp Leu Gly Thr Arg Thr Asp Leu Lys Leu Ser
1325 1330 1335

Tyr Leu Glu Glu Ala Val Met His Leu Asp His Ser Asp Pro Ile
1340 1345 1350

Thr Arg Asp His Met Gly Ser Val Met Ala Gln Val Arg Gln Lys
1355 1360 1365

Leu Phe Gln Phe Leu Gln Ala Glu Pro His Asn Ser Leu Gly Lys
1370 1375 1380

Ala Ala Arg Arg Leu Ser Leu Met Leu His Gly Leu Val Thr Pro
1385 1390 1395

Ser Leu Pro
1400

<210> 91
<211> 620
<212> PRT
<213> Human

<400> 91

Met Arg Arg Ser Glu Val Leu Ala Glu Glu Ser Ile Val Cys Leu Gln
1 5 10 15

Lys Ala Leu Asn His Leu Arg Glu Ile Trp Glu Leu Ile Gly Ile Pro
20 25 30

Glu Asp Gln Arg Leu Gln Arg Thr Glu Val Val Lys Lys His Ile Lys
35 40 45

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Glu Leu Leu Asp Met Met Ile Ala Glu Glu Glu Ser Leu Lys Glu Arg
50 55 60

Leu Ile Lys Ser Ile Ser Val Cys Gln Lys Glu Leu Asn Thr Leu Cys
65 70 75 80

Ser Glu Leu His Val Glu Pro Phe Gln Glu Glu Gly Glu Thr Thr Ile
85 90 95

Leu Gln Leu Glu Lys Asp Leu Arg Thr Gln Val Glu Leu Met Arg Lys
100 105 110

Gln Lys Lys Glu Arg Lys Gln Glu Leu Lys Leu Leu Gln Glu Gln Asp
115 120 125

Gln Glu Leu Cys Glu Ile Leu Cys Met Pro His Tyr Asp Ile Asp Ser
130 135 140

Ala Ser Val Pro Ser Leu Glu Glu Leu Asn Gln Phe Arg Gln His Val
145 150 155 160

Thr Thr Leu Arg Glu Thr Lys Ala Ser Arg Arg Glu Glu Phe Val Ser
165 170 175

Ile Lys Arg Gln Ile Ile Leu Cys Met Glu Ala Leu Asp His Thr Pro
180 185 190

Asp Thr Ser Phe Glu Arg Asp Val Val Cys Glu Asp Glu Asp Ala Phe
195 200 205

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

Leu Glu Met Gln Lys Ser Gln Asn Glu Ala Val Cys Glu Gly Leu Arg
225 230 235 240

Thr Gln Ile Arg Glu Leu Trp Asp Arg Leu Gln Ile Pro Glu Glu Glu
245 250 255

Arg Glu Ala Val Ala Thr Ile Met Ser Gly Ser Lys Ala Lys Val Arg
260 265 270

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

Asn Met Lys Lys Val Ile Glu Ala Ile Arg Val Glu Leu Val Gln Tyr
290 295 300

Trp Asp Gln Cys Phe Tyr Ser Gln Glu Gln Arg Gln Ala Phe Ala Pro
305 310 315 320

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Phe Cys Ala Glu Asp Tyr Thr Glu Ser Leu Leu Gln Leu His Asp Ala
325 330 335

Glu Ile Val Arg Leu Lys Asn Tyr Tyr Glu Val His Lys Glu Leu Phe
340 345 350

Glu Gly Val Gln Lys Trp Glu Glu Thr Trp Arg Leu Phe Leu Glu Phe
355 360 365

Glu Arg Lys Ala Ser Asp Pro Asn Arg Phe Thr Asn Arg Gly Gly Asn
370 375 380

Leu Leu Lys Glu Glu Lys Gln Arg Ala Lys Leu Gln Lys Met Leu Pro
385 390 395 400

Lys Leu Glu Glu Glu Leu Lys Ala Arg Ile Glu Leu Trp Glu Gln Glu
405 410 415

His Ser Lys Ala Phe Met Val Asn Gly Gln Lys Phe Met Glu Tyr Val
420 425 430

Ala Glu Gln Trp Glu Met His Arg Leu Glu Lys Glu Arg Ala Lys Gln
435 440 445

Glu Arg Gln Leu Lys Asn Lys Lys Gln Thr Glu Thr Glu Met Leu Tyr
450 455 460

Gly Ser Ala Pro Arg Thr Pro Ser Lys Arg Arg Gly Leu Ala Pro Asn
465 470 475 480

Thr Pro Gly Lys Ala Arg Lys Leu Asn Thr Thr Thr Met Ser Asn Ala
485 490 495

Thr Ala Asn Ser Ser Ile Arg Pro Ile Phe Gly Gly Thr Val Tyr His
500 505 510

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

Ser Thr Cys Ser Gly Lys Lys Thr Pro Arg Thr Gly Arg His Gly Ala
530 535 540

Asn Lys Glu Asn Leu Glu Leu Asn Gly Ser Ile Leu Ser Gly Gly Tyr
545 550 555 560

Pro Gly Ser Ala Pro Leu Gln Arg Asn Phe Ser Ile Asn Ser Val Ala
565 570 575

Ser Thr Tyr Ser Glu Phe Ala Lys Asp Pro Ser Leu Ser Asp Ser Ser
580 585 590

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Thr Val Gly Leu Gln Arg Glu Leu Ser Lys Ala Ser Lys Ser Asp Ala
595 600 605

Thr Ser Gly Ile Leu Asn Ser Thr Asn Ile Gln Ser
610 615 620

<210> 92
<211> 674
<212> PRT
<213> Human

<400> 92

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

Ala Arg Gly Ala Ala Thr Arg Ser Asp Ile Ala Gly Val Cys Gly Trp
20 25 30

Leu Leu Leu Ser Gly Pro Cys Gly Val Gly Leu Asp Leu Asp Ser Arg
35 40 45

Leu Leu Gly Ala Ser Ala Met Arg Arg Ser Glu Val Leu Ala Glu Glu
50 55 60

Ser Ile Val Cys Leu Gln Lys Ala Leu Asn His Leu Arg Glu Ile Trp
65 70 75 80

Glu Leu Ile Gly Ile Pro Glu Asp Gln Arg Leu Gln Arg Thr Glu Val
85 90 95

Val Lys Lys His Ile Lys Glu Leu Leu Asp Met Met Ile Ala Glu Glu
100 105 110

Glu Ser Leu Lys Glu Arg Leu Ile Lys Ser Ile Ser Val Cys Gln Lys
115 120 125

Glu Leu Asn Thr Leu Cys Ser Glu Leu His Val Glu Pro Phe Gln Glu
130 135 140

Glu Gly Glu Thr Thr Ile Leu Gln Leu Glu Lys Asp Leu Arg Thr Gln
145 150 155 160

Val Glu Leu Met Arg Lys Gln Lys Lys Glu Arg Lys Gln Glu Leu Lys
165 170 175

Leu Leu Gln Glu Gln Asp Gln Glu Leu Cys Glu Ile Leu Cys Met Pro
180 185 190

His Tyr Asp Ile Asp Ser Ala Ser Val Pro Ser Leu Glu Glu Leu Asn
195 200 205

Gln Phe Arg Gln His Val Thr Thr Leu Arg Glu Thr Lys Ala Ser Arg

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210		215		220
Arg 225	Glu Glu Phe Val	Ser 230	Ile Lys Arg Gln 235	Ile Ile Leu Cys Met Glu 240
Ala	Leu Asp His Thr 245	Pro Asp Thr Ser	Phe 250	Glu Arg Asp Val 255
Glu Asp Glu	Asp 260	Ala Phe Cys Leu	Ser 265	Leu Glu Asn Ile Ala Thr Leu 270
Gln Lys	Leu 275	Leu Arg Gln Leu	Glu Met 280	Gln Lys Ser Gln Asn Glu Ala 285
Val	Cys 290	Glu Gly Leu Arg Thr 295	Gln Ile Arg Glu	Leu Trp Asp Arg Leu 300
Gln 305	Ile Pro Glu Glu	Glu Arg Glu Ala Val	Ala 315	Thr Ile Met Ser Gly 320
Ser	Lys Ala Lys Val 325	Arg Lys Ala Leu	Gln 330	Leu Glu Val Asp Arg Leu 335
Glu Glu Leu	Lys 340	Met Gln Asn Met	Lys 345	Lys Val Ile Glu Ala Ile Arg 350
Val	Glu 355	Leu Val Gln Tyr Trp	Asp 360	Gln Cys Phe Tyr Ser Gln Glu Gln 365
Arg	Gln 370	Ala Phe Ala Pro	Phe 375	Cys Ala Glu Asp Tyr Thr Glu Ser Leu 380
Leu 385	Gln Leu His Asp	Ala 390	Glu Ile Val Arg	Leu 395
Val	His Lys Glu	Leu 405	Phe Glu Gly Val	Gln 410
Arg	Leu Phe	Leu 420	Glu Phe Glu Arg	Lys 425
Thr	Asn Arg	Gly 435	Gly Asn Leu	Leu 440
Leu	Gln Lys	Met Leu Pro	Lys 455	Leu Glu Glu Glu
Glu 465	Leu Trp Glu	Gln 470	Glu His Ser Lys	Ala Phe Met Val Asn Gly Gln 480
Lys Phe Met Glu Tyr Val Ala Glu Gln Trp Glu Met His Arg Leu Glu				

485 2282743 490 495

Lys Glu Arg Ala Lys Gln Glu Arg Gln Leu Lys Asn Lys Lys Gln Thr
500 505 510

Glu Thr Glu Met Leu Tyr Gly Ser Ala Pro Arg Thr Pro Ser Lys Arg
515 520 525

Arg Gly Leu Ala Pro Asn Thr Pro Gly Lys Ala Arg Lys Leu Asn Thr
530 535 540

Thr Thr Met Ser Asn Ala Thr Ala Asn Ser Ser Ile Arg Pro Ile Phe
545 550 555 560

Gly Gly Thr Val Tyr His Ser Pro Val Ser Arg Leu Pro Pro Ser Gly
565 570 575

Ser Lys Pro Val Ala Ala Ser Thr Cys Ser Gly Lys Lys Thr Pro Arg
580 585 590

Thr Gly Arg His Gly Ala Asn Lys Glu Asn Leu Glu Leu Asn Gly Ser
595 600 605

Ile Leu Ser Gly Gly Tyr Pro Gly Ser Ala Pro Leu Gln Arg Asn Phe
610 615 620

Ser Ile Asn Ser Val Ala Ser Thr Tyr Ser Glu Phe Ala Lys Asp Pro
625 630 635 640

Ser Leu Ser Asp Ser Ser Thr Val Gly Leu Gln Arg Glu Leu Ser Lys
645 650 655

Ala Ser Lys Ser Asp Ala Thr Ser Gly Ile Leu Asn Ser Thr Asn Ile
660 665 670

Gln Ser

<210> 93
<211> 660
<212> PRT
<213> Human

<400> 93

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

Ala Arg Gly Ala Ala Thr Arg Ser Asp Ile Ala Gly Val Cys Gly Trp
20 25 30

Leu Leu Leu Ser Gly Pro Cys Gly Val Gly Leu Asp Leu Asp Ser Arg
35 40 45

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Leu Leu Gly Ala Ser Ala Met Arg Arg Ser Glu Val Leu Ala Glu Glu
50 55 60

Ser Ile Val Cys Leu Gln Lys Ala Leu Asn His Leu Arg Glu Ile Trp
65 70 75 80

Glu Leu Ile Gly Ile Pro Glu Asp Gln Arg Leu Gln Arg Thr Glu Val
85 90 95

Val Lys Lys His Ile Lys Glu Leu Leu Asp Met Met Ile Ala Glu Glu
100 105 110

Glu Ser Leu Lys Glu Arg Leu Ile Lys Ser Ile Ser Val Cys Gln Lys
115 120 125

Glu Leu Asn Thr Leu Cys Ser Glu Leu His Val Glu Pro Phe Gln Glu
130 135 140

Glu Gly Glu Thr Thr Ile Leu Gln Leu Glu Lys Asp Leu Arg Thr Gln
145 150 155 160

Val Glu Leu Met Arg Lys Gln Lys Lys Glu Arg Lys Gln Glu Leu Lys
165 170 175

Leu Leu Gln Glu Gln Asp Gln Glu Leu Cys Glu Ile Leu Cys Met Pro
180 185 190

His Tyr Asp Ile Asp Ser Ala Ser Val Pro Ser Leu Glu Glu Leu Asn
195 200 205

Gln Phe Arg Gln His Val Thr Thr Leu Arg Glu Thr Lys Ala Ser Arg
210 215 220

Arg Glu Glu Phe Val Ser Ile Lys Arg Gln Ile Ile Leu Cys Met Glu
225 230 235 240

Ala Leu Asp His Thr Pro Asp Thr Ser Phe Glu Arg Asp Val Val Cys
245 250 255

Glu Asp Glu Asp Ala Phe Cys Leu Ser Leu Glu Asn Ile Ala Thr Leu
260 265 270

Gln Lys Leu Leu Arg Gln Leu Glu Met Gln Lys Ser Gln Asn Glu Ala
275 280 285

Val Cys Glu Gly Leu Arg Thr Gln Ile Arg Glu Leu Trp Asp Arg Leu
290 295 300

Gln Ile Pro Glu Glu Glu Arg Glu Ala Val Ala Thr Ile Met Ser Gly
305 310 315 320

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Ser Lys Ala Lys Val Arg Lys Ala Leu Gln Leu Glu Val Asp Arg Leu
325 330 335

Glu Glu Leu Lys Met Gln Asn Met Lys Lys Val Ile Glu Ala Ile Arg
340 345 350

Val Glu Leu Val Gln Tyr Trp Asp Gln Cys Phe Tyr Ser Gln Glu Gln
355 360 365

Arg Gln Ala Phe Ala Pro Phe Cys Ala Glu Asp Tyr Thr Glu Ser Leu
370 375 380

Leu Gln Leu His Asp Ala Glu Ile Val Arg Leu Lys Asn Tyr Tyr Glu
385 390 395 400

Val His Lys Glu Leu Phe Glu Gly Val Gln Lys Trp Glu Glu Thr Trp
405 410 415

Arg Leu Phe Leu Glu Phe Glu Arg Lys Ala Ser Asp Pro Asn Arg Phe
420 425 430

Thr Asn Arg Gly Gly Asn Leu Leu Lys Glu Glu Lys Gln Arg Ala Lys
435 440 445

Leu Gln Lys Met Leu Pro Lys Leu Glu Glu Glu Leu Lys Ala Arg Ile
450 455 460

Glu Leu Trp Glu Gln Glu His Ser Lys Ala Phe Met Val Asn Gly Gln
465 470 475 480

Lys Phe Met Glu Tyr Val Ala Glu Gln Trp Glu Met His Arg Leu Glu
485 490 495

Lys Glu Arg Ala Lys Gln Glu Arg Gln Leu Lys Asn Lys Lys Gln Thr
500 505 510

Glu Thr Glu Met Leu Tyr Gly Ser Ala Pro Arg Thr Pro Ser Lys Arg
515 520 525

Arg Gly Leu Ala Pro Asn Thr Pro Gly Lys Ala Arg Lys Leu Asn Thr
530 535 540

Thr Thr Met Ser Asn Ala Thr Ala Asn Ser Ser Ile Arg Pro Ile Phe
545 550 555 560

Gly Gly Thr Val Tyr His Ser Pro Val Ser Arg Leu Pro Pro Ser Gly
565 570 575

Ser Lys Pro Val Ala Ala Ser Thr Cys Ser Gly Lys Lys Thr Pro Arg
580 585 590

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Thr Gly Arg His Gly Ala Asn Lys Glu Asn Leu Glu Leu Asn Gly Ser
595 600 605

Ile Leu Ser Gly Gly Tyr Pro Gly Ser Ala Pro Leu Gln Arg Asn Phe
610 615 620

Ser Ile Asn Ser Val Ala Ser Thr Tyr Ser Glu Phe Ala Arg Glu Leu
625 630 635 640

Ser Lys Ala Ser Lys Ser Asp Ala Thr Ser Gly Ile Leu Asn Ser Thr
645 650 655

Asn Ile Gln Ser
660

<210> 94
<211> 417
<212> PRT
<213> Human

<400> 94

Met Thr Thr Gln Leu Gly Pro Ala Leu Val Leu Gly Val Ala Leu Cys
1 5 10 15

Leu Gly Cys Gly Gln Pro Leu Pro Gln Val Pro Glu Arg Pro Phe Ser
20 25 30

Val Leu Trp Asn Val Pro Ser Ala His Cys Glu Ala Arg Phe Gly Val
35 40 45

His Leu Pro Leu Asn Ala Leu Gly Ile Ile Ala Asn Arg Gly Gln His
50 55 60

Phe His Gly Gln Asn Met Thr Ile Phe Tyr Lys Asn Gln Leu Gly Leu
65 70 75 80

Tyr Pro Tyr Phe Gly Pro Arg Gly Thr Ala His Asn Gly Gly Ile Pro
85 90 95

Gln Ala Leu Pro Leu Asp Arg His Leu Ala Leu Ala Ala Tyr Gln Ile
100 105 110

His His Ser Leu Arg Pro Gly Phe Ala Gly Pro Ala Val Leu Asp Trp
115 120 125

Glu Glu Trp Cys Pro Leu Trp Ala Gly Asn Trp Gly Arg Arg Arg Ala
130 135 140

Tyr Gln Ala Ala Ser Trp Ala Trp Ala Gln Gln Val Phe Pro Asp Leu
145 150 155 160

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Asp Pro Gln Glu Gln Leu Tyr Lys Ala Tyr Thr Gly Phe Glu Gln Ala
165 170 175

Ala Arg Ala Leu Met Glu Asp Thr Leu Arg Val Ala Gln Ala Leu Arg
180 185 190

Pro His Gly Leu Trp Gly Phe Tyr His Tyr Pro Ala Cys Gly Asn Gly
195 200 205

Trp His Ser Met Ala Ser Asn Tyr Thr Gly Arg Cys His Ala Ala Thr
210 215 220

Leu Ala Arg Asn Thr Gln Leu His Trp Leu Trp Ala Ala Ser Ser Ala
225 230 235 240

Leu Phe Pro Ser Ile Tyr Leu Pro Pro Arg Leu Pro Pro Ala His His
245 250 255

Gln Ala Phe Val Arg His Arg Leu Glu Glu Ala Phe Arg Val Ala Leu
260 265 270

Val Gly His Arg His Pro Leu Pro Val Leu Ala Tyr Val Arg Leu Thr
275 280 285

His Arg Arg Ser Gly Arg Phe Leu Ser Gln Asp Asp Leu Val Gln Ser
290 295 300

Ile Gly Val Ser Ala Ala Leu Gly Ala Ala Gly Val Val Leu Trp Gly
305 310 315 320

Asp Leu Ser Leu Ser Ser Ser Glu Glu Glu Cys Trp His Leu His Asp
325 330 335

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

Ala Met Ala Cys Ser His Gln Arg Cys His Gly His Gly Arg Cys Ala
355 360 365

Arg Arg Asp Pro Gly Gln Met Glu Ala Phe Leu His Leu Trp Pro Asp
370 375 380

Gly Ser Leu Gly Asp Trp Lys Ser Phe Ser Cys His Cys Tyr Trp Gly
385 390 395 400

Trp Ala Gly Pro Thr Cys Gln Glu Pro Arg Pro Gly Pro Lys Glu Ala
405 410 415

Val

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<210> 95
 <211> 462
 <212> PRT
 <213> Human

<400> 95

Met Thr Thr Gln Leu Gly Pro Ala Leu Val Leu Gly Val Ala Leu Cys
 1 5 10 15

Leu Gly Cys Gly Gln Pro Leu Pro Gln Val Pro Glu Arg Pro Phe Ser
 20 25 30

Val Leu Trp Asn Val Pro Ser Ala His Cys Glu Ala Arg Phe Gly Val
 35 40 45

His Leu Pro Leu Asn Ala Leu Gly Ile Ile Ala Asn Arg Gly Gln His
 50 55 60

Phe His Gly Gln Asn Met Thr Ile Phe Tyr Lys Asn Gln Leu Gly Leu
 65 70 75 80

Tyr Pro Tyr Phe Gly Pro Arg Gly Thr Ala His Asn Gly Gly Ile Pro
 85 90 95

Gln Ala Leu Pro Leu Asp Arg His Leu Ala Leu Ala Ala Tyr Gln Ile
 100 105 110

His His Ser Leu Arg Pro Gly Phe Ala Gly Pro Ala Val Leu Asp Trp
 115 120 125

Glu Glu Trp Cys Pro Leu Trp Ala Gly Asn Trp Gly Arg Arg Arg Ala
 130 135 140

Tyr Gln Ala Ala Ser Trp Ala Trp Ala Gln Gln Val Phe Pro Asp Leu
 145 150 155 160

Asp Pro Gln Glu Gln Leu Tyr Lys Ala Tyr Thr Gly Phe Glu Gln Ala
 165 170 175

Ala Arg Ala Leu Met Glu Asp Thr Leu Arg Val Ala Gln Ala Leu Arg
 180 185 190

Pro His Gly Leu Trp Gly Phe Tyr His Tyr Pro Ala Cys Gly Asn Gly
 195 200 205

Trp His Ser Met Ala Ser Asn Tyr Thr Gly Arg Cys His Ala Ala Thr
 210 215 220

Leu Ala Arg Asn Thr Gln Leu His Trp Leu Trp Ala Ala Ser Ser Ala
 225 230 235 240

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Leu Phe Pro Ser Ile Tyr Leu Pro Pro Arg Leu Pro Pro Ala His His
245 250 255

Gln Ala Phe Val Arg His Arg Leu Glu Glu Ala Phe Arg Val Ala Leu
260 265 270

Val Gly His Arg His Pro Leu Pro Val Leu Ala Tyr Val Arg Leu Thr
275 280 285

His Arg Arg Ser Gly Arg Phe Leu Ser Gln Asp Asp Leu Val Gln Ser
290 295 300

Ile Gly Val Ser Ala Ala Leu Gly Ala Ala Gly Val Val Leu Trp Gly
305 310 315 320

Asp Leu Ser Leu Ser Ser Ser Glu Glu Glu Cys Trp His Leu His Asp
325 330 335

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

Ala Met Ala Cys Ser His Gln Arg Cys His Gly His Gly Arg Cys Ala
355 360 365

Arg Arg Asp Pro Gly Gln Met Glu Ala Phe Leu His Leu Trp Pro Asp
370 375 380

Gly Ser Leu Gly Asp Trp Lys Ser Phe Ser Cys His Cys Tyr Trp Gly
385 390 395 400

Trp Ala Gly Pro Thr Cys Gln Glu Pro Leu Gly Leu Lys Lys Gln Tyr
405 410 415

Lys Ala Arg Ala Pro Ala Thr Ala Ser Ser Phe Pro Cys Cys His Phe
420 425 430

Ser Ser Pro Gly Thr Thr Leu Ser His Ser Cys Ser Ile Gln Phe Thr
435 440 445

Val Asn Pro Pro Lys His Thr Pro Arg Phe Pro Trp Asn Pro
450 455 460

<210> 96
<211> 387
<212> PRT
<213> Human

<400> 96

Met Thr Thr Gln Leu Gly Pro Ala Leu Val Leu Gly Val Ala Leu Cys
1 5 10 15

Leu Gly Cys Gly Gln Pro Leu Pro Gln Val Pro Glu Arg Pro Phe Ser
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20

25

30

Val Leu Trp Asn Val Pro Ser Ala His Cys Glu Ala Arg Phe Gly Val
 35 40 45

His Leu Pro Leu Asn Ala Leu Gly Ile Ile Ala Asn Arg Gly Gln His
 50 55 60

Phe His Gly Gln Asn Met Thr Ile Phe Tyr Lys Asn Gln Leu Gly Leu
 65 70 75 80

Tyr Pro Tyr Phe Gly Pro Arg Gly Thr Ala His Asn Gly Gly Ile Pro
 85 90 95

Gln Ala Leu Pro Leu Asp Arg His Leu Ala Leu Ala Ala Tyr Gln Ile
 100 105 110

His His Ser Leu Arg Pro Gly Phe Ala Gly Pro Ala Val Leu Asp Trp
 115 120 125

Glu Glu Trp Cys Pro Leu Trp Ala Gly Asn Trp Gly Arg Arg Arg Ala
 130 135 140

Tyr Gln Ala Ala Ser Trp Ala Trp Ala Gln Gln Val Phe Pro Asp Leu
 145 150 155 160

Asp Pro Gln Glu Gln Leu Tyr Lys Ala Tyr Thr Gly Phe Glu Gln Ala
 165 170 175

Ala Arg Ala Leu Met Glu Asp Thr Leu Arg Val Ala Gln Ala Leu Arg
 180 185 190

Pro His Gly Leu Trp Gly Phe Tyr His Tyr Pro Ala Cys Gly Asn Gly
 195 200 205

Trp His Ser Met Ala Ser Asn Tyr Thr Gly Arg Cys His Ala Ala Thr
 210 215 220

Leu Ala Arg Asn Thr Gln Leu His Trp Leu Trp Ala Ala Ser Ser Ala
 225 230 235 240

Leu Phe Pro Ser Ile Tyr Leu Pro Pro Arg Leu Pro Pro Ala His His
 245 250 255

Gln Ala Phe Val Arg His Arg Leu Glu Glu Ala Phe Arg Val Ala Leu
 260 265 270

Val Gly His Arg His Pro Leu Pro Val Leu Ala Tyr Val Arg Leu Thr
 275 280 285

His Arg Arg Ser Gly Arg Phe Leu Ser Gln Glu Glu Cys Trp His Leu
 Seite 134

290

295

300

His Asp Tyr Leu Val Asp Thr Leu Gly Pro Tyr Val Ile Asn Val Thr
 305 310 315 320

Arg Ala Ala Met Ala Cys Ser His Gln Arg Cys His Gly His Gly Arg
 325 330 335

Cys Ala Arg Arg Asp Pro Gly Gln Met Glu Ala Phe Leu His Leu Trp
 340 345 350

Pro Asp Gly Ser Leu Gly Asp Trp Lys Ser Phe Ser Cys His Cys Tyr
 355 360 365

Trp Gly Trp Ala Gly Pro Thr Cys Gln Glu Pro Arg Pro Gly Pro Lys
 370 375 380

Glu Ala Val
 385

<210> 97
 <211> 462
 <212> PRT
 <213> Human

<400> 97

Met Gly Lys Glu Lys Thr His Ile Asn Ile Val Val Ile Gly His Val
 1 5 10 15

Asp Ser Gly Lys Ser Thr Thr Thr Gly His Leu Ile Tyr Lys Cys Gly
 20 25 30

Gly Ile Asp Lys Arg Thr Ile Glu Lys Phe Glu Lys Glu Ala Ala Glu
 35 40 45

Met Gly Lys Gly Ser Phe Lys Tyr Ala Trp Val Leu Asp Lys Leu Lys
 50 55 60

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

Glu Thr Ser Lys Tyr Tyr Val Thr Ile Ile Asp Ala Pro Gly His Arg
 85 90 95

Asp Phe Ile Lys Asn Met Ile Thr Gly Thr Ser Gln Ala Asp Cys Ala
 100 105 110

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

Lys Asn Gly Gln Thr Arg Glu His Ala Leu Leu Ala Tyr Thr Leu Gly
 130 135 140

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Val Lys Gln Leu Ile Val Gly Val Asn Lys Met Asp Ser Thr Glu Pro
145 150 155 160

Pro Tyr Ser Gln Lys Arg Tyr Glu Glu Ile Val Lys Glu Val Ser Thr
165 170 175

Tyr Ile Lys Lys Ile Gly Tyr Asn Pro Asp Thr Val Ala Phe Val Pro
180 185 190

Ile Ser Gly Trp Asn Gly Asp Asn Met Leu Glu Pro Ser Ala Asn Met
195 200 205

Pro Trp Phe Lys Gly Trp Lys Val Thr Arg Lys Asp Gly Asn Ala Ser
210 215 220

Gly Thr Thr Leu Leu Glu Ala Leu Asp Cys Ile Leu Pro Pro Thr Arg
225 230 235 240

Pro Thr Asp Lys Pro Leu Arg Leu Pro Leu Gln Asp Val Tyr Lys Ile
245 250 255

Gly Gly Ile Gly Thr Val Pro Val Gly Arg Val Glu Thr Gly Val Leu
260 265 270

Lys Pro Gly Met Val Val Thr Phe Ala Pro Val Asn Val Thr Thr Glu
275 280 285

Val Lys Ser Val Glu Met His His Glu Ala Leu Ser Glu Ala Leu Pro
290 295 300

Gly Asp Asn Val Gly Phe Lys Val Lys Asn Val Ser Val Lys Asp Val
305 310 315 320

Arg Arg Gly Asn Val Ala Gly Asp Ser Lys Asn Asp Pro Pro Met Glu
325 330 335

Ala Ala Gly Phe Thr Ala Gln Val Ile Ile Leu Asn His Pro Gly Gln
340 345 350

Ile Ser Ala Gly Tyr Ala Pro Val Leu Asp Cys His Met Ala His Ile
355 360 365

Ala Cys Lys Phe Ala Glu Leu Lys Glu Lys Ile Asp Arg Arg Ser Gly
370 375 380

Lys Lys Leu Glu Asp Gly Pro Lys Phe Leu Lys Ser Gly Asp Ala Ala
385 390 395 400

Ile Val Asp Met Val Pro Gly Lys Pro Met Cys Val Glu Ser Phe Ser
405 410 415

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Asp Tyr Pro Pro Leu Gly Arg Phe Ala Val Arg Asp Met Arg Gln Thr
420 425 430

Val Ala Val Gly Val Ile Lys Ala Val Asp Lys Lys Ala Ala Gly Ala
435 440 445

Gly Lys Val Thr Lys Ser Ala Gln Lys Ala Gln Lys Ala Lys
450 455 460

<210> 98
<211> 381
<212> PRT
<213> Human

<400> 98

Met Ala Leu Lys Ala Glu Gly Ala Ala Leu Asp Cys Phe Glu Val Thr
1 5 10 15

Leu Lys Cys Glu Glu Gly Glu Asp Glu Glu Glu Ala Met Val Val Ala
20 25 30

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

Thr Pro Pro Pro Arg Pro Ser Pro Leu Glu Ala Gly Ser Asp Gly Cys
50 55 60

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

Ser Ser Pro Gly Gly Ser Gly Arg Ala Leu Cys Met Val Cys Gly Ala
85 90 95

Glu Ile Arg Ala Pro Ser Ala Asp Thr Ala Arg Ser His Ile Leu Glu
100 105 110

Gln His Pro His Thr Leu Asp Leu Ser Pro Ser Glu Lys Ser Asn Ile
115 120 125

Leu Glu Ala Trp Ser Glu Gly Val Ala Leu Leu Gln Asp Val Arg Ala
130 135 140

Glu Gln Pro Ser Pro Pro Asn Ser Asp Ser Gly Gln Asp Ala His Pro
145 150 155 160

Asp Pro Asp Ala Asn Pro Asp Ala Ala Arg Met Pro Ala Glu Ile Val
165 170 175

Val Leu Leu Asp Ser Glu Asp Asn Pro Ser Leu Pro Lys Arg Ser Arg
180 185 190

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Pro Arg Gly Leu Arg Pro Leu Glu Leu Pro Ala Val Pro Ala Thr Glu
195 200 205

Pro Gly Asn Lys Lys Pro Arg Gly Gln Arg Trp Lys Glu Pro Pro Gly
210 215 220

Glu Glu Pro Val Arg Lys Lys Arg Gly Arg Pro Met Thr Lys Asn Leu
225 230 235 240

Asp Pro Asp Pro Glu Pro Pro Ser Pro Asp Ser Pro Thr Glu Thr Phe
245 250 255

Ala Ala Pro Ala Glu Val Arg His Phe Thr Asp Gly Ser Phe Pro Ala
260 265 270

Gly Phe Val Leu Gln Leu Phe Ser His Thr Gln Leu Arg Gly Pro Asp
275 280 285

Ser Lys Asp Ser Pro Lys Asp Arg Glu Val Ala Glu Gly Gly Leu Pro
290 295 300

Arg Ala Glu Ser Pro Ser Pro Ala Pro Pro Pro Gly Leu Arg Gly Thr
305 310 315 320

Leu Asp Leu Gln Val Ile Arg Val Arg Met Glu Glu Pro Pro Ala Val
325 330 335

Ser Leu Leu Gln Asp Trp Ser Arg His Pro Gln Gly Thr Lys Arg Val
340 345 350

Gly Ala Gly Asp Thr Ser Asp Trp Pro Thr Val Leu Ser Glu Ser Ser
355 360 365

Thr Thr Val Ala Gly Lys Pro Glu Lys Gly Asn Gly Val
370 375 380

<210> 99
<211> 1909
<212> PRT
<213> Human

<400> 99

Met Ser Thr His Arg Ser Arg Leu Leu Thr Ala Ala Pro Leu Ser Met
1 5 10 15

Glu Gln Arg Arg Pro Trp Pro Arg Ala Leu Glu Val Asp Ser Arg Ser
20 25 30

Val Val Leu Leu Ser Val Val Trp Val Leu Leu Ala Pro Pro Ala Ala
35 40 45

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Gly Met Pro Gln Phe Ser Thr Phe His Ser Glu Asn Arg Asp Trp Thr
50 55 60

Phe Asn His Leu Thr Val His Gln Gly Thr Gly Ala Val Tyr Val Gly
65 70 75 80

Ala Ile Asn Arg Val Tyr Lys Leu Thr Gly Asn Leu Thr Ile Gln Val
85 90 95

Ala His Lys Thr Gly Pro Glu Glu Asp Asn Lys Ser Cys Tyr Pro Pro
100 105 110

Leu Ile Val Gln Pro Cys Ser Glu Val Leu Thr Leu Thr Asn Asn Val
115 120 125

Asn Lys Leu Leu Ile Ile Asp Tyr Ser Glu Asn Arg Leu Leu Ala Cys
130 135 140

Gly Ser Leu Tyr Gln Gly Val Cys Lys Leu Leu Arg Leu Asp Asp Leu
145 150 155 160

Phe Ile Leu Val Glu Pro Ser His Lys Lys Glu His Tyr Leu Ser Ser
165 170 175

Val Asn Lys Thr Gly Thr Met Tyr Gly Val Ile Val Arg Ser Glu Gly
180 185 190

Glu Asp Gly Lys Leu Phe Ile Gly Thr Ala Val Asp Gly Lys Gln Asp
195 200 205

Tyr Phe Pro Thr Leu Ser Ser Arg Lys Leu Pro Arg Asp Pro Glu Ser
210 215 220

Ser Ala Met Leu Asp Tyr Glu Leu His Ser Asp Phe Val Ser Ser Leu
225 230 235 240

Ile Lys Ile Pro Ser Asp Thr Leu Ala Leu Val Ser His Phe Asp Ile
245 250 255

Phe Tyr Ile Tyr Gly Phe Ala Ser Gly Gly Phe Val Tyr Phe Leu Thr
260 265 270

Val Gln Pro Glu Thr Pro Glu Gly Val Ala Ile Asn Ser Ala Gly Asp
275 280 285

Leu Phe Tyr Thr Ser Arg Ile Val Arg Leu Cys Lys Asp Asp Pro Lys
290 295 300

Phe His Ser Tyr Val Ser Leu Pro Phe Gly Cys Thr Arg Ala Gly Val
305 310 315 320

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Glu Tyr Arg Leu Leu Gln Ala Ala Tyr Leu Ala Lys Pro Gly Asp Ser
325 330 335

Leu Ala Gln Ala Phe Asn Ile Thr Ser Gln Asp Asp Val Leu Phe Ala
340 345 350

Ile Phe Ser Lys Gly Gln Lys Gln Tyr His His Pro Pro Asp Asp Ser
355 360 365

Ala Leu Cys Ala Phe Pro Ile Arg Ala Ile Asn Leu Gln Ile Lys Glu
370 375 380

Arg Leu Gln Ser Cys Tyr Gln Gly Glu Gly Asn Leu Glu Leu Asn Trp
385 390 395 400

Leu Leu Gly Lys Asp Val Gln Cys Thr Lys Ala Pro Val Pro Ile Asp
405 410 415

Asp Asn Phe Cys Gly Leu Asp Ile Asn Gln Pro Leu Gly Gly Ser Thr
420 425 430

Pro Val Glu Gly Leu Thr Leu Tyr Thr Thr Ser Arg Asp Arg Met Thr
435 440 445

Ser Val Ala Ser Tyr Val Tyr Asn Gly Tyr Ser Val Val Phe Val Gly
450 455 460

Thr Lys Ser Gly Lys Leu Lys Lys Ile Arg Ala Asp Gly Pro Pro His
465 470 475 480

Gly Gly Val Gln Tyr Glu Met Val Ser Val Leu Lys Asp Gly Ser Pro
485 490 495

Ile Leu Arg Asp Met Ala Phe Ser Ile Asp Gln Arg Tyr Leu Tyr Val
500 505 510

Met Ser Glu Arg Gln Val Thr Arg Val Pro Val Glu Ser Cys Glu Gln
515 520 525

Tyr Thr Thr Cys Gly Glu Cys Leu Ser Ser Gly Asp Pro His Cys Gly
530 535 540

Trp Cys Ala Leu His Asn Met Cys Ser Arg Arg Asp Lys Cys Gln Gln
545 550 555 560

Ala Trp Glu Pro Asn Arg Phe Ala Ala Ser Ile Ser Gln Cys Val Ser
565 570 575

Leu Ala Val His Pro Ser Ser Ile Ser Val Ser Glu His Ser Arg Leu
580 585 590

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Leu Ser Leu Val Val Ser Asp Ala Pro Asp Leu Ser Ala Gly Ile Ala
595 600 605

Cys Ala Phe Gly Asn Leu Thr Glu Val Glu Gly Gln Val Ser Gly Ser
610 615 620

Gln Val Ile Cys Ile Ser Pro Gly Pro Lys Asp Val Pro Val Ile Pro
625 630 635 640

Leu Asp Gln Asp Trp Phe Gly Leu Glu Leu Gln Leu Arg Ser Lys Glu
645 650 655

Thr Gly Lys Ile Phe Val Ser Thr Glu Phe Lys Phe Tyr Asn Cys Ser
660 665 670

Ala His Gln Leu Cys Leu Ser Cys Val Asn Ser Ala Phe Arg Cys His
675 680 685

Trp Cys Lys Tyr Arg Asn Leu Cys Thr His Asp Pro Thr Thr Cys Ser
690 695 700

Phe Gln Glu Gly Arg Ile Asn Ile Ser Glu Asp Cys Pro Gln Leu Val
705 710 715 720

Pro Thr Glu Glu Ile Leu Ile Pro Val Gly Glu Val Lys Pro Ile Thr
725 730 735

Leu Lys Ala Arg Asn Leu Pro Gln Pro Gln Ser Gly Gln Arg Gly Tyr
740 745 750

Glu Cys Val Leu Asn Ile Gln Gly Ala Ile His Arg Val Pro Ala Leu
755 760 765

Arg Phe Asn Ser Ser Ser Val Gln Cys Gln Asn Ser Ser Tyr Gln Tyr
770 775 780

Asp Gly Met Asp Ile Ser Asn Leu Ala Val Asp Phe Ala Val Val Trp
785 790 795 800

Asn Gly Asn Phe Ile Ile Asp Asn Pro Gln Asp Leu Lys Val His Leu
805 810 815

Tyr Lys Cys Ala Ala Gln Arg Glu Ser Cys Gly Leu Cys Leu Lys Ala
820 825 830

Asp Arg Lys Phe Glu Cys Gly Trp Cys Ser Gly Glu Arg Arg Cys Thr
835 840 845

Leu His Gln His Cys Thr Ser Pro Ser Ser Pro Trp Leu Asp Trp Ser
850 855 860

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Ser His Asn Val Lys Cys Ser Asn Pro Gln Ile Thr Glu Ile Leu Thr
865 870 875 880

Val Ser Gly Pro Pro Glu Gly Gly Thr Arg Val Thr Ile His Gly Val
885 890 895

Asn Leu Gly Leu Asp Phe Ser Glu Ile Ala His His Val Gln Val Ala
900 905 910

Gly Val Pro Cys Thr Pro Leu Pro Gly Glu Tyr Ile Ile Ala Glu Gln
915 920 925

Ile Val Cys Glu Met Gly His Ala Leu Val Gly Thr Thr Ser Gly Pro
930 935 940

Val Arg Leu Cys Ile Gly Glu Cys Lys Pro Glu Phe Met Thr Lys Ser
945 950 955 960

His Gln Gln Tyr Thr Phe Val Asn Pro Ser Val Leu Ser Leu Asn Pro
965 970 975

Ile Arg Gly Pro Glu Ser Gly Gly Thr Met Val Thr Ile Thr Gly His
980 985 990

Tyr Leu Gly Ala Gly Ser Ser Val Ala Val Tyr Leu Gly Asn Gln Thr
995 1000 1005

Cys Glu Phe Tyr Gly Arg Ser Met Ser Glu Ile Val Cys Val Ser
1010 1015 1020

Pro Pro Ser Ser Asn Gly Leu Gly Pro Val Pro Val Ser Val Ser
1025 1030 1035

Val Asp Arg Ala His Val Asp Ser Asn Leu Gln Phe Glu Tyr Ile
1040 1045 1050

Asp Asp Pro Arg Val Gln Arg Ile Glu Pro Glu Trp Ser Ile Ala
1055 1060 1065

Ser Gly His Thr Pro Leu Thr Ile Thr Gly Phe Asn Leu Asp Val
1070 1075 1080

Ile Gln Glu Pro Arg Ile Arg Val Lys Phe Asn Gly Lys Glu Ser
1085 1090 1095

Val Asn Val Cys Lys Val Val Asn Thr Thr Thr Leu Thr Cys Leu
1100 1105 1110

Ala Pro Ser Leu Thr Thr Asp Tyr Arg Pro Gly Leu Asp Thr Val
1115 1120 1125

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Glu	Arg	Pro	Asp	Glu	Phe	Gly	Phe	Val	Phe	Asn	Asn	Val	Gln	Ser
1130						1135					1140			
Leu	Leu	Ile	Tyr	Asn	Asp	Thr	Lys	Phe	Ile	Tyr	Tyr	Pro	Asn	Pro
1145						1150					1155			
Thr	Phe	Glu	Leu	Leu	Ser	Pro	Thr	Gly	Val	Leu	Asp	Gln	Lys	Pro
1160						1165					1170			
Gly	Ser	Pro	Ile	Ile	Leu	Lys	Gly	Lys	Asn	Leu	Cys	Pro	Pro	Ala
1175						1180					1185			
Ser	Gly	Gly	Ala	Lys	Leu	Asn	Tyr	Thr	Val	Leu	Ile	Gly	Glu	Thr
1190						1195					1200			
Pro	Cys	Ala	Val	Thr	Val	Ser	Glu	Thr	Gln	Leu	Leu	Cys	Glu	Pro
1205						1210					1215			
Pro	Asn	Leu	Thr	Gly	Gln	His	Lys	Val	Met	Val	His	Val	Gly	Gly
1220						1225					1230			
Met	Val	Phe	Ser	Pro	Gly	Ser	Val	Ser	Val	Ile	Ser	Asp	Ser	Leu
1235						1240					1245			
Leu	Thr	Leu	Pro	Ala	Ile	Val	Ser	Ile	Ala	Ala	Gly	Gly	Ser	Leu
1250						1255					1260			
Leu	Leu	Ile	Ile	Val	Ile	Ile	Val	Leu	Ile	Ala	Tyr	Lys	Arg	Lys
1265						1270					1275			
Ser	Arg	Glu	Asn	Asp	Leu	Thr	Leu	Lys	Arg	Leu	Gln	Met	Gln	Met
1280						1285					1290			
Asp	Asn	Leu	Glu	Ser	Arg	Val	Ala	Leu	Glu	Cys	Lys	Glu	Ala	Phe
1295						1300					1305			
Ala	Glu	Leu	Gln	Thr	Asp	Ile	Asn	Glu	Leu	Thr	Ser	Asp	Leu	Asp
1310						1315					1320			
Arg	Ser	Gly	Ile	Pro	Tyr	Leu	Asp	Tyr	Arg	Thr	Tyr	Ala	Met	Arg
1325						1330					1335			
Val	Leu	Phe	Pro	Gly	Ile	Glu	Asp	His	Pro	Val	Leu	Arg	Glu	Leu
1340						1345					1350			
Glu	Val	Gln	Gly	Asn	Gly	Gln	Gln	His	Val	Glu	Lys	Ala	Leu	Lys
1355						1360					1365			
Leu	Phe	Ala	Gln	Leu	Ile	Asn	Asn	Lys	Val	Phe	Leu	Leu	Thr	Phe
1370						1375					1380			

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Ile	Arg	Thr	Leu	Glu	Leu	Gln	Arg	Ser	Phe	Ser	Met	Arg	Asp	Arg
1385						1390					1395			
Gly	Asn	Val	Ala	Ser	Leu	Ile	Met	Thr	Gly	Leu	Gln	Gly	Arg	Leu
1400						1405					1410			
Glu	Tyr	Ala	Thr	Asp	Val	Leu	Lys	Gln	Leu	Leu	Ser	Asp	Leu	Ile
1415						1420					1425			
Asp	Lys	Asn	Leu	Glu	Asn	Lys	Asn	His	Pro	Lys	Leu	Leu	Leu	Arg
1430						1435					1440			
Arg	Thr	Glu	Ser	Val	Ala	Glu	Lys	Met	Leu	Thr	Asn	Trp	Phe	Ala
1445						1450					1455			
Phe	Leu	Leu	His	Lys	Phe	Leu	Lys	Glu	Cys	Ala	Gly	Glu	Pro	Leu
1460						1465					1470			
Phe	Met	Leu	Tyr	Cys	Ala	Ile	Lys	Gln	Gln	Met	Glu	Lys	Gly	Pro
1475						1480					1485			
Ile	Asp	Ala	Ile	Thr	Gly	Glu	Ala	Arg	Tyr	Ser	Leu	Ser	Glu	Asp
1490						1495					1500			
Lys	Leu	Ile	Arg	Gln	Gln	Ile	Glu	Tyr	Lys	Thr	Leu	Ile	Leu	Asn
1505						1510					1515			
Cys	Val	Asn	Pro	Asp	Asn	Glu	Asn	Ser	Pro	Glu	Ile	Pro	Val	Lys
1520						1525					1530			
Val	Leu	Asn	Cys	Asp	Thr	Ile	Thr	Gln	Val	Lys	Glu	Lys	Ile	Leu
1535						1540					1545			
Asp	Ala	Val	Tyr	Lys	Asn	Val	Pro	Tyr	Ser	Gln	Arg	Pro	Arg	Ala
1550						1555					1560			
Val	Asp	Met	Asp	Leu	Glu	Trp	Arg	Gln	Gly	Arg	Ile	Ala	Arg	Val
1565						1570					1575			
Val	Leu	Gln	Asp	Glu	Asp	Ile	Thr	Thr	Lys	Ile	Glu	Gly	Asp	Trp
1580						1585					1590			
Lys	Arg	Leu	Asn	Thr	Leu	Met	His	Tyr	Gln	Val	Ser	Asp	Arg	Ser
1595						1600					1605			
Val	Val	Ala	Leu	Val	Pro	Lys	Gln	Thr	Ser	Ser	Tyr	Asn	Ile	Pro
1610						1615					1620			
Ala	Ser	Ala	Ser	Ile	Ser	Arg	Thr	Ser	Ile	Ser	Arg	Tyr	Asp	Ser
1625						1630					1635			

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Ser	Phe	Arg	Tyr	Thr	Gly	Ser	Pro	Asp	Ser	Leu	Arg	Ser	Arg	Ala
1640						1645					1650			
Pro	Met	Ile	Thr	Pro	Asp	Leu	Glu	Ser	Gly	Val	Lys	Val	Trp	His
1655						1660					1665			
Leu	Val	Lys	Asn	His	Asp	His	Gly	Asp	Gln	Lys	Glu	Gly	Asp	Arg
1670						1675					1680			
Gly	Ser	Lys	Met	Val	Ser	Glu	Ile	Tyr	Leu	Thr	Arg	Leu	Leu	Ala
1685						1690					1695			
Thr	Lys	Gly	Thr	Leu	Gln	Lys	Phe	Val	Asp	Asp	Leu	Phe	Glu	Thr
1700						1705					1710			
Leu	Phe	Ser	Thr	Val	His	Arg	Gly	Ser	Ala	Leu	Pro	Leu	Ala	Ile
1715						1720					1725			
Lys	Tyr	Met	Phe	Asp	Phe	Leu	Asp	Glu	Gln	Ala	Asp	Arg	His	Ser
1730						1735					1740			
Ile	His	Asp	Thr	Asp	Val	Arg	His	Thr	Trp	Lys	Ser	Asn	Cys	Leu
1745						1750					1755			
Pro	Leu	Arg	Phe	Trp	Val	Asn	Val	Ile	Lys	Asn	Pro	Gln	Phe	Val
1760						1765					1770			
Phe	Asp	Ile	His	Lys	Gly	Ser	Ile	Thr	Asp	Ala	Cys	Leu	Ser	Val
1775						1780					1785			
Val	Ala	Gln	Thr	Phe	Met	Asp	Ser	Cys	Ser	Thr	Ser	Glu	His	Arg
1790						1795					1800			
Leu	Gly	Lys	Asp	Ser	Pro	Ser	Asn	Lys	Leu	Leu	Tyr	Ala	Lys	Asp
1805						1810					1815			
Ile	Pro	Ser	Tyr	Lys	Ser	Trp	Val	Glu	Arg	Tyr	Tyr	Ala	Asp	Ile
1820						1825					1830			
Ala	Lys	Leu	Pro	Ala	Ile	Ser	Asp	Gln	Asp	Met	Asn	Ala	Tyr	Leu
1835						1840					1845			
Ala	Glu	Gln	Ser	Arg	Leu	His	Ala	Val	Glu	Phe	Asn	Met	Leu	Ser
1850						1855					1860			
Ala	Leu	Asn	Glu	Ile	Tyr	Ser	Tyr	Val	Ser	Lys	Tyr	Ser	Glu	Glu
1865						1870					1875			
Leu	Ile	Gly	Ala	Leu	Glu	Gln	Asp	Glu	Gln	Ala	Arg	Arg	Gln	Arg
1880						1885					1890			

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Leu Ala Tyr Lys Val Glu Gln Leu Ile Asn Ala Met Ser Ile Glu
1895 1900 1905

Ser

<210> 100
<211> 1894
<212> PRT
<213> Human

<400> 100

Met Glu Gln Arg Arg Pro Trp Pro Arg Ala Leu Glu Val Asp Ser Arg
1 5 10 15

Ser Val Val Leu Leu Ser Val Val Trp Val Leu Leu Ala Pro Pro Ala
20 25 30

Ala Gly Met Pro Gln Phe Ser Thr Phe His Ser Glu Asn Arg Asp Trp
35 40 45

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

Gly Ala Ile Asn Arg Val Tyr Lys Leu Thr Gly Asn Leu Thr Ile Gln
65 70 75 80

Val Ala His Lys Thr Gly Pro Glu Glu Asp Asn Lys Ser Cys Tyr Pro
85 90 95

Pro Leu Ile Val Gln Pro Cys Ser Glu Val Leu Thr Leu Thr Asn Asn
100 105 110

Val Asn Lys Leu Leu Ile Ile Asp Tyr Ser Glu Asn Arg Leu Leu Ala
115 120 125

Cys Gly Ser Leu Tyr Gln Gly Val Cys Lys Leu Leu Arg Leu Asp Asp
130 135 140

Leu Phe Ile Leu Val Glu Pro Ser His Lys Lys Glu His Tyr Leu Ser
145 150 155 160

Ser Val Asn Lys Thr Gly Thr Met Tyr Gly Val Ile Val Arg Ser Glu
165 170 175

Gly Glu Asp Gly Lys Leu Phe Ile Gly Thr Ala Val Asp Gly Lys Gln
180 185 190

Asp Tyr Phe Pro Thr Leu Ser Ser Arg Lys Leu Pro Arg Asp Pro Glu
195 200 205

Ser Ser Ala Met Leu Asp Tyr Glu Leu His Ser Asp Phe Val Ser Ser

210

215

220

Leu Ile Lys Ile Pro Ser Asp Thr Leu Ala Leu Val Ser His Phe Asp
 225 230 235 240

Ile Phe Tyr Ile Tyr Gly Phe Ala Ser Gly Gly Phe Val Tyr Phe Leu
 245 250 255

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

Asp Leu Phe Tyr Thr Ser Arg Ile Val Arg Leu Cys Lys Asp Asp Pro
 275 280 285

Lys Phe His Ser Tyr Val Ser Leu Pro Phe Gly Cys Thr Arg Ala Gly
 290 295 300

Val Glu Tyr Arg Leu Leu Gln Ala Ala Tyr Leu Ala Lys Pro Gly Asp
 305 310 315 320

Ser Leu Ala Gln Ala Phe Asn Ile Thr Ser Gln Asp Asp Val Leu Phe
 325 330 335

Ala Ile Phe Ser Lys Gly Gln Lys Gln Tyr His His Pro Pro Asp Asp
 340 345 350

Ser Ala Leu Cys Ala Phe Pro Ile Arg Ala Ile Asn Leu Gln Ile Lys
 355 360 365

Glu Arg Leu Gln Ser Cys Tyr Gln Gly Glu Gly Asn Leu Glu Leu Asn
 370 375 380

Trp Leu Leu Gly Lys Asp Val Gln Cys Thr Lys Ala Pro Val Pro Ile
 385 390 395 400

Asp Asp Asn Phe Cys Gly Leu Asp Ile Asn Gln Pro Leu Gly Gly Ser
 405 410 415

Thr Pro Val Glu Gly Leu Thr Leu Tyr Thr Thr Ser Arg Asp Arg Met
 420 425 430

Thr Ser Val Ala Ser Tyr Val Tyr Asn Gly Tyr Ser Val Val Phe Val
 435 440 445

Gly Thr Lys Ser Gly Lys Leu Lys Lys Ile Arg Ala Asp Gly Pro Pro
 450 455 460

His Gly Gly Val Gln Tyr Glu Met Val Ser Val Leu Lys Asp Gly Ser
 465 470 475 480

Pro Ile Leu Arg Asp Met Ala Phe Ser Ile Asp Gln Arg Tyr Leu Tyr
 Seite 147

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490

485

495

Val Met Ser Glu Arg Gln Val Thr Arg Val Pro Val Glu Ser Cys Glu
500 505 510

Gln Tyr Thr Thr Cys Gly Glu Cys Leu Ser Ser Gly Asp Pro His Cys
515 520 525

Gly Trp Cys Ala Leu His Asn Met Cys Ser Arg Arg Asp Lys Cys Gln
530 535 540

Gln Ala Trp Glu Pro Asn Arg Phe Ala Ala Ser Ile Ser Gln Cys Val
545 550 555 560

Ser Leu Ala Val His Pro Ser Ser Ile Ser Val Ser Glu His Ser Arg
565 570 575

Leu Leu Ser Leu Val Val Ser Asp Ala Pro Asp Leu Ser Ala Gly Ile
580 585 590

Ala Cys Ala Phe Gly Asn Leu Thr Glu Val Glu Gly Gln Val Ser Gly
595 600 605

Ser Gln Val Ile Cys Ile Ser Pro Gly Pro Lys Asp Val Pro Val Ile
610 615 620

Pro Leu Asp Gln Asp Trp Phe Gly Leu Glu Leu Gln Leu Arg Ser Lys
625 630 635 640

Glu Thr Gly Lys Ile Phe Val Ser Thr Glu Phe Lys Phe Tyr Asn Cys
645 650 655

Ser Ala His Gln Leu Cys Leu Ser Cys Val Asn Ser Ala Phe Arg Cys
660 665 670

His Trp Cys Lys Tyr Arg Asn Leu Cys Thr His Asp Pro Thr Thr Cys
675 680 685

Ser Phe Gln Glu Gly Arg Ile Asn Ile Ser Glu Asp Cys Pro Gln Leu
690 695 700

Val Pro Thr Glu Glu Ile Leu Ile Pro Val Gly Glu Val Lys Pro Ile
705 710 715 720

Thr Leu Lys Ala Arg Asn Leu Pro Gln Pro Gln Ser Gly Gln Arg Gly
725 730 735

Tyr Glu Cys Val Leu Asn Ile Gln Gly Ala Ile His Arg Val Pro Ala
740 745 750

Leu Arg Phe Asn Ser Ser Ser Val Gln Cys Gln Asn Ser Ser Tyr Gln
Seite 148

755

760

765

Tyr Asp Gly Met Asp Ile Ser Asn Leu Ala Val Asp Phe Ala Val Val
 770 775 780

Trp Asn Gly Asn Phe Ile Ile Asp Asn Pro Gln Asp Leu Lys Val His
 785 790 795 800

Leu Tyr Lys Cys Ala Ala Gln Arg Glu Ser Cys Gly Leu Cys Leu Lys
 805 810 815

Ala Asp Arg Lys Phe Glu Cys Gly Trp Cys Ser Gly Glu Arg Arg Cys
 820 825 830

Thr Leu His Gln His Cys Thr Ser Pro Ser Ser Pro Trp Leu Asp Trp
 835 840 845

Ser Ser His Asn Val Lys Cys Ser Asn Pro Gln Ile Thr Glu Ile Leu
 850 855 860

Thr Val Ser Gly Pro Pro Glu Gly Gly Thr Arg Val Thr Ile His Gly
 865 870 875 880

Val Asn Leu Gly Leu Asp Phe Ser Glu Ile Ala His His Val Gln Val
 885 890 895

Ala Gly Val Pro Cys Thr Pro Leu Pro Gly Glu Tyr Ile Ile Ala Glu
 900 905 910

Gln Ile Val Cys Glu Met Gly His Ala Leu Val Gly Thr Thr Ser Gly
 915 920 925

Pro Val Arg Leu Cys Ile Gly Glu Cys Lys Pro Glu Phe Met Thr Lys
 930 935 940

Ser His Gln Gln Tyr Thr Phe Val Asn Pro Ser Val Leu Ser Leu Asn
 945 950 955 960

Pro Ile Arg Gly Pro Glu Ser Gly Gly Thr Met Val Thr Ile Thr Gly
 965 970 975

His Tyr Leu Gly Ala Gly Ser Ser Val Ala Val Tyr Leu Gly Asn Gln
 980 985 990

Thr Cys Glu Phe Tyr Gly Arg Ser Met Ser Glu Ile Val Cys Val Ser
 995 1000 1005

Pro Pro Ser Ser Asn Gly Leu Gly Pro Val Pro Val Ser Val Ser
 1010 1015 1020

Val Asp Arg Ala His Val Asp Ser Asn Leu Gln Phe Glu Tyr Ile
 Seite 149

1025		1030		1035
Asp Asp 1040	Pro Arg Val Gln	Arg 1045	Ile Glu Pro Glu	Trp Ser Ile Ala 1050
Ser Gly 1055	His Thr Pro Leu	Thr 1060	Ile Thr Gly Phe	Asn Leu Asp Val 1065
Ile Gln 1070	Glu Pro Arg Ile	Arg 1075	Val Lys Phe Asn	Gly Lys Glu Ser 1080
Val Asn 1085	Val Cys Lys Val	Val 1090	Asn Thr Thr Thr	Leu Thr Cys Leu 1095
Ala Pro 1100	Ser Leu Thr Thr	Asp 1105	Tyr Arg Pro Gly	Leu Asp Thr Val 1110
Glu Arg 1115	Pro Asp Glu Phe	Gly 1120	Phe Val Phe Asn	Asn Val Gln Ser 1125
Leu Leu 1130	Ile Tyr Asn Asp	Thr 1135	Lys Phe Ile Tyr	Tyr Pro Asn Pro 1140
Thr Phe 1145	Glu Leu Leu Ser	Pro 1150	Thr Gly Val Leu	Asp Gln Lys Pro 1155
Gly Ser 1160	Pro Ile Ile Leu	Lys 1165	Gly Lys Asn Leu	Cys Pro Pro Ala 1170
Ser Gly 1175	Gly Ala Lys Leu	Asn 1180	Tyr Thr Val Leu	Ile Gly Glu Thr 1185
Pro Cys 1190	Ala Val Thr Val	Ser 1195	Glu Thr Gln Leu	Leu Cys Glu Pro 1200
Pro Asn 1205	Leu Thr Gly Gln	His 1210	Lys Val Met Val	His Val Gly Gly 1215
Met Val 1220	Phe Ser Pro Gly	Ser 1225	Val Ser Val Ile	Ser Asp Ser Leu 1230
Leu Thr 1235	Leu Pro Ala Ile	Val 1240	Ser Ile Ala Ala	Gly Gly Ser Leu 1245
Leu Leu 1250	Ile Ile Val Ile	Ile 1255	Val Leu Ile Ala	Tyr Lys Arg Lys 1260
Ser Arg 1265	Glu Asn Asp Leu	Thr 1270	Leu Lys Arg Leu	Gln Met Gln Met 1275
Asp Asn	Leu Glu Ser Arg Val	Ala Leu Glu Cys Lys	Glu Ala Phe	

1280		1285		1290
Ala Glu 1295	Leu Gln Thr Asp	Ile 1300	Asn Glu Leu Thr	Ser Asp Leu Asp 1305
Arg Ser 1310	Gly Ile Pro Tyr	Leu 1315	Asp Tyr Arg Thr	Tyr Ala Met Arg 1320
Val Leu 1325	Phe Pro Gly Ile	Glu 1330	Asp His Pro Val	Leu Arg Glu Leu 1335
Glu Val 1340	Gln Gly Asn Gly	Gln 1345	Gln His Val Glu	Lys Ala Leu Lys 1350
Leu Phe 1355	Ala Gln Leu Ile	Asn 1360	Asn Lys Val Phe	Leu Leu Thr Phe 1365
Ile Arg 1370	Thr Leu Glu Leu	Gln 1375	Arg Ser Phe Ser	Met Arg Asp Arg 1380
Gly Asn 1385	Val Ala Ser Leu	Ile 1390	Met Thr Gly Leu	Gln Gly Arg Leu 1395
Glu Tyr 1400	Ala Thr Asp Val	Leu 1405	Lys Gln Leu Leu	Ser Asp Leu Ile 1410
Asp Lys 1415	Asn Leu Glu Asn	Lys 1420	Asn His Pro Lys	Leu Leu Leu Arg 1425
Arg Thr 1430	Glu Ser Val Ala	Glu 1435	Lys Met Leu Thr	Asn Trp Phe Ala 1440
Phe Leu 1445	Leu His Lys Phe	Leu 1450	Lys Glu Cys Ala	Gly Glu Pro Leu 1455
Phe Met 1460	Leu Tyr Cys Ala	Ile 1465	Lys Gln Gln Met	Glu Lys Gly Pro 1470
Ile Asp 1475	Ala Ile Thr Gly	Glu 1480	Ala Arg Tyr Ser	Leu Ser Glu Asp 1485
Lys Leu 1490	Ile Arg Gln Gln	Ile 1495	Glu Tyr Lys Thr	Leu Ile Leu Asn 1500
Cys Val 1505	Asn Pro Asp Asn	Glu 1510	Asn Ser Pro Glu	Ile Pro Val Lys 1515
Val Leu 1520	Asn Cys Asp Thr	Ile 1525	Thr Gln Val Lys	Glu Lys Ile Leu 1530
Asp Ala	Val Tyr Lys Asn Val		Pro Tyr Ser Gln Arg	Pro Arg Ala

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1535		1540		1545
Val Asp 1550	Met Asp Leu Glu	Trp 1555	Arg Gln Gly Arg	Ile Ala Arg Val 1560
Val Leu 1565	Gln Asp Glu Asp	Ile 1570	Thr Thr Lys Ile	Glu Gly Asp Trp 1575
Lys Arg 1580	Leu Asn Thr Leu	Met 1585	His Tyr Gln Val	Ser Asp Arg Ser 1590
Val Val 1595	Ala Leu Val Pro	Lys 1600	Gln Thr Ser Ser	Tyr Asn Ile Pro 1605
Ala Ser 1610	Ala Ser Ile Ser	Arg 1615	Thr Ser Ile Ser	Arg Tyr Asp Ser 1620
Ser Phe 1625	Arg Tyr Thr Gly	Ser 1630	Pro Asp Ser Leu	Arg Ser Arg Ala 1635
Pro Met 1640	Ile Thr Pro Asp	Leu 1645	Glu Ser Gly Val	Lys Val Trp His 1650
Leu Val 1655	Lys Asn His Asp	His 1660	Gly Asp Gln Lys	Glu Gly Asp Arg 1665
Gly Ser 1670	Lys Met Val Ser	Glu 1675	Ile Tyr Leu Thr	Arg Leu Leu Ala 1680
Thr Lys 1685	Gly Thr Leu Gln	Lys 1690	Phe Val Asp Asp	Leu Phe Glu Thr 1695
Leu Phe 1700	Ser Thr Val His	Arg 1705	Gly Ser Ala Leu	Pro Leu Ala Ile 1710
Lys Tyr 1715	Met Phe Asp Phe	Leu 1720	Asp Glu Gln Ala	Asp Arg His Ser 1725
Ile His 1730	Asp Thr Asp Val	Arg 1735	His Thr Trp Lys	Ser Asn Cys Leu 1740
Pro Leu 1745	Arg Phe Trp Val	Asn 1750	Val Ile Lys Asn	Pro Gln Phe Val 1755
Phe Asp 1760	Ile His Lys Gly	Ser 1765	Ile Thr Asp Ala	Cys Leu Ser Val 1770
Val Ala 1775	Gln Thr Phe Met	Asp 1780	Ser Cys Ser Thr	Ser Glu His Arg 1785
Leu Gly	Lys Asp Ser Pro Ser	Asn	Lys Leu Leu Tyr	Ala Lys Asp

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1790

1795

1800

Ile Pro Ser Tyr Lys Ser Trp Val Glu Arg Tyr Tyr Ala Asp Ile
1805 1810 1815

Ala Lys Leu Pro Ala Ile Ser Asp Gln Asp Met Asn Ala Tyr Leu
1820 1825 1830

Ala Glu Gln Ser Arg Leu His Ala Val Glu Phe Asn Met Leu Ser
1835 1840 1845

Ala Leu Asn Glu Ile Tyr Ser Tyr Val Ser Lys Tyr Ser Glu Glu
1850 1855 1860

Leu Ile Gly Ala Leu Glu Gln Asp Glu Gln Ala Arg Arg Gln Arg
1865 1870 1875

Leu Ala Tyr Lys Val Glu Gln Leu Ile Asn Ala Met Ser Ile Glu
1880 1885 1890

Ser

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<211> 720
<212> PRT
<213> Human

<400> 101

Met Pro Pro Pro Ser Asp Ile Val Lys Val Ala Ile Glu Trp Pro Gly
1 5 10 15

Ala Asn Ala Gln Leu Leu Glu Ile Asp Gln Lys Arg Pro Leu Ala Ser
20 25 30

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

Tyr Thr Leu Arg Tyr Ala Asp Gly Pro Gln Leu Tyr Ile Thr Glu Gln
50 55 60

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

Pro Ser Arg Ala Ala Arg Gln Leu Met Glu Arg Thr Gln Ser Ser Asn
85 90 95

Met Glu Thr Arg Leu Asp Ala Met Lys Glu Leu Ala Lys Leu Ser Ala
100 105 110

Asp Val Thr Phe Ala Thr Glu Phe Ile Asn Met Asp Gly Ile Ile Val
115 120 125

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Leu Thr Arg Leu Val Glu Ser Gly Thr Lys Leu Leu Ser His Tyr Ser
130 135 140

Glu Met Leu Ala Phe Thr Leu Thr Ala Phe Leu Glu Leu Met Asp His
145 150 155 160

Gly Ile Val Ser Trp Asp Met Val Ser Ile Thr Phe Ile Lys Gln Ile
165 170 175

Ala Gly Tyr Val Ser Gln Pro Met Val Asp Val Ser Ile Leu Gln Arg
180 185 190

Ser Leu Ala Ile Leu Glu Ser Met Val Leu Asn Ser Gln Ser Leu Tyr
195 200 205

Gln Lys Ile Ala Glu Glu Ile Thr Val Gly Gln Leu Ile Ser His Leu
210 215 220

Gln Val Ser Asn Gln Glu Ile Gln Thr Tyr Ala Ile Ala Leu Ile Asn
225 230 235 240

Ala Leu Phe Leu Lys Ala Pro Glu Asp Lys Arg Gln Asp Met Ala Asn
245 250 255

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

Arg Gly Asn Arg Pro Ile Lys Thr Glu Met Ala His Gln Leu Tyr Val
275 280 285

Leu Gln Val Leu Thr Phe Asn Leu Leu Glu Glu Arg Met Met Thr Lys
290 295 300

Met Asp Pro Asn Asp Gln Ala Gln Arg Asp Ile Ile Phe Glu Leu Arg
305 310 315 320

Arg Ile Ala Phe Asp Ala Glu Ser Asp Pro Ser Asn Ala Pro Gly Ser
325 330 335

Gly Thr Glu Lys Arg Lys Ala Met Tyr Thr Lys Asp Tyr Lys Met Leu
340 345 350

Gly Phe Thr Asn His Ile Asn Pro Ala Met Asp Phe Thr Gln Thr Pro
355 360 365

Pro Gly Met Leu Ala Leu Asp Asn Met Leu Tyr Leu Ala Lys Val His
370 375 380

Gln Asp Thr Tyr Ile Arg Ile Val Leu Glu Asn Ser Ser Arg Glu Asp
385 390 395 400

2282743

Lys His Glu Cys Pro Phe Gly Arg Ser Ala Ile Glu Leu Thr Lys Met
405 410 415

Leu Cys Glu Ile Leu Gln Val Gly Glu Leu Pro Asn Glu Gly Arg Asn
420 425 430

Asp Tyr His Pro Met Phe Phe Thr His Asp Arg Ala Phe Glu Glu Leu
435 440 445

Phe Gly Ile Cys Ile Gln Leu Leu Asn Lys Thr Trp Lys Glu Met Arg
450 455 460

Ala Thr Ala Glu Asp Phe Asn Lys Val Met Gln Val Val Arg Glu Gln
465 470 475 480

Ile Thr Arg Ala Leu Pro Ser Lys Pro Asn Ser Leu Asp Gln Phe Lys
485 490 495

Ser Lys Leu Arg Ser Leu Ser Tyr Ser Glu Ile Leu Arg Leu Arg Gln
500 505 510

Ser Glu Arg Met Ser Gln Asp Asp Phe Gln Ser Pro Pro Ile Val Glu
515 520 525

Leu Arg Glu Lys Ile Gln Pro Glu Ile Leu Glu Leu Ile Lys Gln Gln
530 535 540

Arg Leu Asn Arg Leu Cys Glu Gly Ser Ser Phe Arg Lys Ile Gly Asn
545 550 555 560

Arg Arg Arg Gln Glu Arg Phe Trp Tyr Cys Arg Leu Ala Leu Asn His
565 570 575

Lys Val Leu His Tyr Gly Asp Leu Asp Asp Asn Pro Gln Gly Glu Val
580 585 590

Thr Phe Glu Ser Leu Gln Glu Lys Ile Pro Val Ala Asp Ile Lys Ala
595 600 605

Ile Val Thr Gly Lys Asp Cys Pro His Met Lys Glu Lys Ser Ala Leu
610 615 620

Lys Gln Asn Lys Glu Val Leu Glu Leu Ala Phe Ser Ile Leu Tyr Asp
625 630 635 640

Pro Asp Glu Thr Leu Asn Phe Ile Ala Pro Asn Lys Tyr Glu Tyr Cys
645 650 655

Ile Trp Ile Asp Gly Leu Ser Ala Leu Leu Gly Lys Asp Met Ser Ser
660 665 670

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Glu Leu Thr Lys Ser Asp Leu Asp Thr Leu Leu Ser Met Glu Met Lys
675 680 685

Leu Arg Leu Leu Asp Leu Glu Asn Ile Gln Ile Pro Glu Ala Pro Pro
690 695 700

Pro Ile Pro Lys Glu Pro Ser Ser Tyr Asp Phe Val Tyr His Tyr Gly
705 710 715 720

<210> 102
<211> 720
<212> PRT
<213> Human

<400> 102

Met Pro Pro Pro Ser Asp Ile Val Lys Val Ala Ile Glu Trp Pro Gly
1 5 10 15

Ala Asn Ala Gln Leu Leu Glu Ile Asp Gln Lys Arg Pro Leu Ala Ser
20 25 30

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

Tyr Thr Leu Arg Tyr Ala Asp Gly Pro Gln Leu Tyr Ile Thr Glu Gln
50 55 60

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

Pro Ser Arg Ala Ala Arg Gln Leu Met Glu Arg Thr Gln Ser Ser Asn
85 90 95

Met Glu Thr Arg Leu Asp Ala Met Lys Glu Leu Ala Lys Leu Ser Ala
100 105 110

Asp Val Thr Phe Ala Thr Glu Phe Ile Asn Met Asp Gly Ile Ile Val
115 120 125

Leu Thr Arg Leu Val Glu Ser Gly Thr Lys Leu Leu Ser His Tyr Ser
130 135 140

Glu Met Leu Ala Phe Thr Leu Thr Ala Phe Leu Glu Leu Met Asp His
145 150 155 160

Gly Ile Val Ser Trp Asp Met Val Ser Ile Thr Phe Ile Lys Gln Ile
165 170 175

Ala Gly Tyr Val Ser Gln Pro Met Val Asp Val Ser Ile Leu Gln Arg
180 185 190

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Ser Leu Ala Ile Leu Glu Ser Met Val Leu Asn Ser Gln Ser Leu Tyr
195 200 205

Gln Lys Ile Ala Glu Glu Ile Thr Val Gly Gln Leu Ile Ser His Leu
210 215 220

Gln Val Ser Asn Gln Glu Ile Gln Thr Tyr Ala Ile Ala Leu Ile Asn
225 230 235 240

Ala Leu Phe Leu Lys Ala Pro Glu Asp Lys Arg Gln Asp Met Ala Asn
245 250 255

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

Arg Gly Asn Arg Pro Ile Lys Thr Glu Met Ala His Gln Leu Tyr Val
275 280 285

Leu Gln Val Leu Thr Phe Asn Leu Leu Glu Glu Arg Met Met Thr Lys
290 295 300

Met Asp Pro Asn Asp Gln Ala Gln Arg Asp Ile Ile Phe Glu Leu Arg
305 310 315 320

Arg Ile Ala Phe Asp Ala Glu Ser Asp Pro Ser Asn Ala Pro Gly Ser
325 330 335

Gly Thr Glu Lys Arg Lys Ala Met Tyr Thr Lys Asp Tyr Lys Met Leu
340 345 350

Gly Phe Thr Asn His Ile Asn Pro Ala Met Asp Phe Thr Gln Thr Pro
355 360 365

Pro Gly Met Leu Ala Leu Asp Asn Met Leu Tyr Leu Ala Lys Val His
370 375 380

Gln Asp Thr Tyr Ile Arg Ile Val Leu Glu Asn Ser Ser Arg Glu Asp
385 390 395 400

Lys His Glu Cys Pro Phe Gly Arg Ser Ala Ile Glu Leu Thr Lys Met
405 410 415

Leu Cys Glu Ile Leu Gln Val Gly Glu Leu Pro Asn Glu Gly Arg Asn
420 425 430

Asp Tyr His Pro Met Phe Phe Thr His Asp Arg Ala Phe Glu Glu Leu
435 440 445

Phe Gly Ile Cys Ile Gln Leu Leu Asn Lys Thr Trp Lys Glu Met Arg
450 455 460

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Ala Thr Ala Glu Asp Phe Asn Lys Val Met Gln Val Val Arg Glu Gln
465 470 475 480

Ile Thr Arg Ala Leu Pro Ser Lys Pro Asn Ser Leu Asp Gln Phe Lys
485 490 495

Ser Lys Leu Arg Ser Leu Ser Tyr Ser Glu Ile Leu Arg Leu Arg Gln
500 505 510

Ser Glu Arg Met Ser Gln Asp Asp Phe Gln Ser Pro Pro Ile Val Glu
515 520 525

Leu Arg Glu Lys Ile Gln Pro Glu Ile Leu Glu Leu Ile Lys Gln Gln
530 535 540

Arg Leu Asn Arg Leu Cys Glu Gly Ser Ser Phe Arg Lys Ile Gly Asn
545 550 555 560

Arg Arg Arg Gln Glu Arg Phe Trp Tyr Cys Arg Leu Ala Leu Asn His
565 570 575

Lys Val Leu His Tyr Gly Asp Leu Asp Asp Asn Pro Gln Gly Glu Val
580 585 590

Thr Phe Glu Ser Leu Gln Glu Lys Ile Pro Val Ala Asp Ile Lys Ala
595 600 605

Ile Val Thr Gly Lys Asp Cys Pro His Met Lys Glu Lys Ser Ala Leu
610 615 620

Lys Gln Asn Lys Glu Val Leu Glu Leu Ala Phe Ser Ile Leu Tyr Asp
625 630 635 640

Pro Asp Glu Thr Leu Asn Phe Ile Ala Pro Asn Lys Tyr Glu Tyr Cys
645 650 655

Ile Trp Ile Asp Gly Leu Ser Ala Leu Leu Gly Lys Asp Met Ser Ser
660 665 670

Glu Leu Thr Lys Ser Asp Leu Asp Thr Leu Leu Ser Met Glu Met Lys
675 680 685

Leu Arg Leu Leu Asp Leu Glu Asn Ile Gln Ile Pro Glu Ala Pro Pro
690 695 700

Pro Ile Pro Lys Glu Pro Ser Ser Tyr Asp Phe Val Tyr His Tyr Gly
705 710 715 720

<210> 103
<211> 718
<212> PRT

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<213> Human

<400> 103

Met Pro Pro Pro Ser Asp Ile Val Lys Val Ala Ile Glu Trp Pro Gly
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Ile Ile Lys Glu Val Cys Asp Gly Trp Ser Leu Pro Asn Pro Glu Tyr
35 40 45

Tyr Thr Leu Arg Tyr Ala Asp Gly Pro Gln Leu Tyr Ile Thr Glu Gln
50 55 60

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

Pro Ser Arg Ala Ala Arg Gln Leu Met Glu Arg Thr Gln Ser Ser Asn
85 90 95

Met Glu Thr Arg Leu Asp Ala Met Lys Glu Leu Ala Lys Leu Ser Ala
100 105 110

Asp Val Thr Phe Ala Thr Glu Phe Ile Asn Met Asp Gly Ile Ile Val
115 120 125

Leu Thr Arg Leu Val Glu Ser Gly Thr Lys Leu Leu Ser His Glu Met
130 135 140

Leu Ala Phe Thr Leu Thr Ala Phe Leu Glu Leu Met Asp His Gly Ile
145 150 155 160

Val Ser Trp Asp Met Val Ser Ile Thr Phe Ile Lys Gln Ile Ala Gly
165 170 175

Tyr Val Ser Gln Pro Met Val Asp Val Ser Ile Leu Gln Arg Ser Leu
180 185 190

Ala Ile Leu Glu Ser Met Val Leu Asn Ser Gln Ser Leu Tyr Gln Lys
195 200 205

Ile Ala Glu Glu Ile Thr Val Gly Gln Leu Ile Ser His Leu Gln Val
210 215 220

Ser Asn Gln Glu Ile Gln Thr Tyr Ala Ile Ala Leu Ile Asn Ala Leu
225 230 235 240

Phe Leu Lys Ala Pro Glu Asp Lys Arg Gln Asp Met Ala Asn Ala Phe
245 250 255

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Ala Gln Lys His Leu Arg Ser Ile Ile Leu Asn His Val Ile Arg Gly
260 265 270

Asn Arg Pro Ile Lys Thr Glu Met Ala His Gln Leu Tyr Val Leu Gln
275 280 285

Val Leu Thr Phe Asn Leu Leu Glu Glu Arg Met Met Thr Lys Met Asp
290 295 300

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

Ala Phe Asp Ala Glu Ser Asp Pro Ser Asn Ala Pro Gly Ser Gly Thr
325 330 335

Glu Lys Arg Lys Ala Met Tyr Thr Lys Asp Tyr Lys Met Leu Gly Phe
340 345 350

Thr Asn His Ile Asn Pro Ala Met Asp Phe Thr Gln Thr Pro Pro Gly
355 360 365

Met Leu Ala Leu Asp Asn Met Leu Tyr Leu Ala Lys Val His Gln Asp
370 375 380

Thr Tyr Ile Arg Ile Val Leu Glu Asn Ser Ser Arg Glu Asp Lys His
385 390 395 400

Glu Cys Pro Phe Gly Arg Ser Ala Ile Glu Leu Thr Lys Met Leu Cys
405 410 415

Glu Ile Leu Gln Val Gly Glu Leu Pro Asn Glu Gly Arg Asn Asp Tyr
420 425 430

His Pro Met Phe Phe Thr His Asp Arg Ala Phe Glu Glu Leu Phe Gly
435 440 445

Ile Cys Ile Gln Leu Leu Asn Lys Thr Trp Lys Glu Met Arg Ala Thr
450 455 460

Ala Glu Asp Phe Asn Lys Val Met Gln Val Val Arg Glu Gln Ile Thr
465 470 475 480

Arg Ala Leu Pro Ser Lys Pro Asn Ser Leu Asp Gln Phe Lys Ser Lys
485 490 495

Leu Arg Ser Leu Ser Tyr Ser Glu Ile Leu Arg Leu Arg Gln Ser Glu
500 505 510

Arg Met Ser Gln Asp Asp Phe Gln Ser Pro Pro Ile Val Glu Leu Arg
515 520 525

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Glu Lys Ile Gln Pro Glu Ile Leu Glu Leu Ile Lys Gln Gln Arg Leu
530 535 540

Asn Arg Leu Cys Glu Gly Ser Ser Phe Arg Lys Ile Gly Asn Arg Arg
545 550 555 560

Arg Gln Glu Arg Phe Trp Tyr Cys Arg Leu Ala Leu Asn His Lys Val
565 570 575

Leu His Tyr Gly Asp Leu Asp Asp Asn Pro Gln Gly Glu Val Thr Phe
580 585 590

Glu Ser Leu Gln Glu Lys Ile Pro Val Ala Asp Ile Lys Ala Ile Val
595 600 605

Thr Gly Lys Asp Cys Pro His Met Lys Glu Lys Ser Ala Leu Lys Gln
610 615 620

Asn Lys Glu Val Leu Glu Leu Ala Phe Ser Ile Leu Tyr Asp Pro Asp
625 630 635 640

Glu Thr Leu Asn Phe Ile Ala Pro Asn Lys Tyr Glu Tyr Cys Ile Trp
645 650 655

Ile Asp Gly Leu Ser Ala Leu Leu Gly Lys Asp Met Ser Ser Glu Leu
660 665 670

Thr Lys Ser Asp Leu Asp Thr Leu Leu Ser Met Glu Met Lys Leu Arg
675 680 685

Leu Leu Asp Leu Glu Asn Ile Gln Ile Pro Glu Ala Pro Pro Pro Ile
690 695 700

Pro Lys Glu Pro Ser Ser Tyr Asp Phe Val Tyr His Tyr Gly
705 710 715

<210> 104
<211> 632
<212> PRT
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<400> 104

Met Glu Arg Thr Gln Ser Ser Asn Met Glu Thr Arg Leu Asp Ala Met
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Lys Glu Leu Ala Lys Leu Ser Ala Asp Val Thr Phe Ala Thr Glu Phe
20 25 30

Ile Asn Met Asp Gly Ile Ile Val Leu Thr Arg Leu Val Glu Ser Gly
35 40 45

Thr Lys Leu Leu Ser His Tyr Ser Glu Met Leu Ala Phe Thr Leu Thr
Seite 161

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50

55

60

Ala Phe Leu Glu Leu Met Asp His Gly Ile Val Ser Trp Asp Met Val
65 70 75 80

Ser Ile Thr Phe Ile Lys Gln Ile Ala Gly Tyr Val Ser Gln Pro Met
85 90 95

Val Asp Val Ser Ile Leu Gln Arg Ser Leu Ala Ile Leu Glu Ser Met
100 105 110

Val Leu Asn Ser Gln Ser Leu Tyr Gln Lys Ile Ala Glu Glu Ile Thr
115 120 125

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

Thr Tyr Ala Ile Ala Leu Ile Asn Ala Leu Phe Leu Lys Ala Pro Glu
145 150 155 160

Asp Lys Arg Gln Asp Met Ala Asn Ala Phe Ala Gln Lys His Leu Arg
165 170 175

Ser Ile Ile Leu Asn His Val Ile Arg Gly Asn Arg Pro Ile Lys Thr
180 185 190

Glu Met Ala His Gln Leu Tyr Val Leu Gln Val Leu Thr Phe Asn Leu
195 200 205

Leu Glu Glu Arg Met Met Thr Lys Met Asp Pro Asn Asp Gln Ala Gln
210 215 220

Arg Asp Ile Ile Phe Glu Leu Arg Arg Ile Ala Phe Asp Ala Glu Ser
225 230 235 240

Asp Pro Ser Asn Ala Pro Gly Ser Gly Thr Glu Lys Arg Lys Ala Met
245 250 255

Tyr Thr Lys Asp Tyr Lys Met Leu Gly Phe Thr Asn His Ile Asn Pro
260 265 270

Ala Met Asp Phe Thr Gln Thr Pro Pro Gly Met Leu Ala Leu Asp Asn
275 280 285

Met Leu Tyr Leu Ala Lys Val His Gln Asp Thr Tyr Ile Arg Ile Val
290 295 300

Leu Glu Asn Ser Ser Arg Glu Asp Lys His Glu Cys Pro Phe Gly Arg
305 310 315 320

Ser Ala Ile Glu Leu Thr Lys Met Leu Cys Glu Ile Leu Gln Val Gly
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325

335

Glu Leu Pro Asn 340 Glu Gly Arg Asn Asp 345 Tyr His Pro Met Phe 350 Phe Thr
His Asp Arg 355 Ala Phe Glu Glu Leu 360 Phe Gly Ile Cys Ile 365 Gln Leu Leu
Asn Lys 370 Thr Trp Lys Glu Met 375 Arg Ala Thr Ala Glu 380 Asp Phe Asn Lys
Val 385 Met Gln Val Val Arg 390 Glu Gln Ile Thr Arg 395 Ala Leu Pro Ser Lys 400
Pro Asn Ser Leu Asp 405 Gln Phe Lys Ser Lys 410 Leu Arg Ser Leu Ser 415 Tyr
Ser Glu Ile Leu 420 Arg Leu Arg Gln Ser 425 Glu Arg Met Ser Gln 430 Asp Asp
Phe Gln Ser 435 Pro Pro Ile Val Glu 440 Leu Arg Glu Lys Ile 445 Gln Pro Glu
Ile Leu 450 Glu Leu Ile Lys Gln 455 Gln Arg Leu Asn Arg 460 Leu Cys Glu Gly
Ser 465 Ser Phe Arg Lys Ile 470 Gly Asn Arg Arg Arg 475 Gln Glu Arg Phe Trp 480
Tyr Cys Arg Leu Ala 485 Leu Asn His Lys Val 490 Leu His Tyr Gly Asp 495 Leu
Asp Asp Asn Pro 500 Gln Gly Glu Val Thr 505 Phe Glu Ser Leu Gln 510 Glu Lys
Ile Pro Val 515 Ala Asp Ile Lys Ala 520 Ile Val Thr Gly Lys 525 Asp Cys Pro
His Met 530 Lys Glu Lys Ser Ala 535 Leu Lys Gln Asn Lys 540 Glu Val Leu Glu
Leu 545 Ala Phe Ser Ile Leu 550 Tyr Asp Pro Asp Glu 555 Thr Leu Asn Phe Ile 560
Ala Pro Asn Lys Tyr 565 Glu Tyr Cys Ile Trp 570 Ile Asp Gly Leu Ser 575 Ala
Leu Leu Gly Lys 580 Asp Met Ser Ser Glu 585 Leu Thr Lys Ser Asp 590 Leu Asp
Thr Leu Leu Ser Met Glu Met Lys Leu Arg Leu Leu Asp Leu Glu Asn

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595

600

605

Ile Gln Ile Pro Glu Ala Pro Pro Pro Ile Pro Lys Glu Pro Ser Ser
610 615 620

Tyr Asp Phe Val Tyr His Tyr Gly
625 630

<210> 105
<211> 463
<212> PRT
<213> Human

<400> 105

Met Ala Ala Leu Arg Ala Leu Cys Gly Phe Arg Gly Val Ala Ala Gln
1 5 10 15

Val Leu Arg Pro Gly Ala Gly Val Arg Leu Pro Ile Gln Pro Ser Arg
20 25 30

Gly Val Arg Gln Trp Gln Pro Asp Val Glu Trp Ala Gln Gln Phe Gly
35 40 45

Gly Ala Val Met Tyr Pro Ser Lys Glu Thr Ala His Trp Lys Pro Pro
50 55 60

Pro Trp Asn Asp Val Asp Pro Pro Lys Asp Thr Ile Val Lys Asn Ile
65 70 75 80

Thr Leu Asn Phe Gly Pro Gln His Pro Ala Ala His Gly Val Leu Arg
85 90 95

Leu Val Met Glu Leu Ser Gly Glu Met Val Arg Lys Cys Asp Pro His
100 105 110

Ile Gly Leu Leu His Arg Gly Thr Glu Lys Leu Ile Glu Tyr Lys Thr
115 120 125

Tyr Leu Gln Ala Leu Pro Tyr Phe Asp Arg Leu Asp Tyr Val Ser Met
130 135 140

Met Cys Asn Glu Gln Ala Tyr Ser Leu Ala Val Glu Lys Leu Leu Asn
145 150 155 160

Ile Arg Pro Pro Pro Arg Ala Gln Trp Ile Arg Val Leu Phe Gly Glu
165 170 175

Ile Thr Arg Leu Leu Asn His Ile Met Ala Val Thr Thr His Ala Leu
180 185 190

Asp Leu Gly Ala Met Thr Pro Phe Phe Trp Leu Phe Glu Glu Arg Glu
195 200 205

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Lys Met Phe Glu Phe Tyr Glu Arg Val Ser Gly Ala Arg Met His Ala
210 215 220

Ala Tyr Ile Arg Pro Gly Gly Val His Gln Asp Leu Pro Leu Gly Leu
225 230 235 240

Met Asp Asp Ile Tyr Gln Phe Ser Lys Asn Phe Ser Leu Arg Leu Asp
245 250 255

Glu Leu Glu Glu Leu Leu Thr Asn Asn Arg Ile Trp Arg Asn Arg Thr
260 265 270

Ile Asp Ile Gly Val Val Thr Ala Glu Glu Ala Leu Asn Tyr Gly Phe
275 280 285

Ser Gly Val Met Leu Arg Gly Ser Gly Ile Gln Trp Asp Leu Arg Lys
290 295 300

Thr Gln Pro Tyr Asp Val Tyr Asp Gln Val Glu Phe Asp Val Pro Val
305 310 315 320

Gly Ser Arg Gly Asp Cys Tyr Asp Arg Tyr Leu Cys Arg Val Glu Glu
325 330 335

Met Arg Gln Ser Leu Arg Ile Ile Ala Gln Cys Leu Asn Lys Met Pro
340 345 350

Pro Gly Glu Ile Lys Val Asp Asp Ala Lys Val Ser Pro Pro Lys Arg
355 360 365

Ala Glu Met Lys Thr Ser Met Glu Ser Leu Ile His His Phe Lys Leu
370 375 380

Tyr Thr Glu Gly Tyr Gln Val Pro Pro Gly Ala Thr Tyr Thr Ala Ile
385 390 395 400

Glu Ala Pro Lys Gly Glu Phe Gly Val Tyr Leu Val Ser Asp Gly Ser
405 410 415

Ser Arg Pro Tyr Arg Cys Lys Ile Lys Ala Pro Gly Phe Ala His Leu
420 425 430

Ala Gly Leu Asp Lys Met Ser Lys Gly His Met Leu Ala Asp Val Val
435 440 445

Ala Ile Ile Gly Thr Gln Asp Ile Val Phe Gly Glu Val Asp Arg
450 455 460

<210> 106
<211> 463

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<212> PRT
<213> Human

<400> 106

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Met Ala Ala Leu Arg Ala Leu Cys Gly Phe Arg Gly Val Ala Ala Gln
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Val Leu Arg Pro Gly Ala Gly Val Arg Leu Pro Ile Gln Pro Ser Arg
          20          25          30

Gly Val Arg Gln Trp Gln Pro Asp Val Glu Trp Ala Gln Gln Phe Gly
          35          40          45

Gly Ala Val Met Tyr Pro Ser Lys Glu Thr Ala His Trp Lys Pro Pro
 50          55          60

Pro Trp Asn Asp Val Asp Pro Pro Lys Asp Thr Ile Val Lys Asn Ile
 65          70          75          80

Thr Leu Asn Phe Gly Pro Gln His Pro Ala Ala His Gly Val Leu Arg
          85          90          95

Leu Val Met Glu Leu Ser Gly Glu Met Val Arg Lys Cys Asp Pro His
          100          105          110

Ile Gly Leu Leu His Arg Gly Thr Glu Lys Leu Ile Glu Tyr Lys Thr
          115          120          125

Tyr Leu Gln Ala Leu Pro Tyr Phe Asp Arg Leu Asp Tyr Val Ser Met
          130          135          140

Met Cys Asn Glu Gln Ala Tyr Ser Leu Ala Val Glu Lys Leu Leu Asn
          145          150          155          160

Ile Arg Pro Pro Pro Arg Ala Gln Trp Ile Arg Val Leu Phe Gly Glu
          165          170          175

Ile Thr Arg Leu Leu Asn His Ile Met Ala Val Thr Thr His Ala Leu
          180          185          190

Asp Leu Gly Ala Met Thr Pro Phe Phe Trp Leu Phe Glu Glu Arg Glu
          195          200          205

Lys Met Phe Glu Phe Tyr Glu Arg Val Ser Gly Ala Arg Met His Ala
          210          215          220

Ala Tyr Ile Arg Pro Gly Gly Val His Gln Asp Leu Pro Leu Gly Leu
          225          230          235          240

Met Asp Asp Ile Tyr Gln Phe Ser Lys Asn Phe Ser Leu Arg Leu Asp
          245          250          255

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Glu Leu Glu Glu Leu Leu Thr Asn Asn Arg Ile Trp Arg Asn Arg Thr
260 265 270

Ile Asp Ile Gly Val Val Thr Ala Glu Glu Ala Leu Asn Tyr Gly Phe
275 280 285

Ser Gly Val Met Leu Arg Gly Ser Gly Ile Gln Trp Asp Leu Arg Lys
290 295 300

Thr Gln Pro Tyr Asp Val Tyr Asp Gln Val Glu Phe Asp Val Pro Val
305 310 315 320

Gly Ser Arg Gly Asp Cys Tyr Asp Arg Tyr Leu Cys Arg Val Glu Glu
325 330 335

Met Arg Gln Ser Leu Arg Ile Ile Ala Gln Cys Leu Asn Lys Met Pro
340 345 350

Pro Gly Glu Ile Lys Val Asp Asp Ala Lys Val Ser Pro Pro Lys Arg
355 360 365

Ala Glu Met Lys Thr Ser Met Glu Ser Leu Ile His His Phe Lys Leu
370 375 380

Tyr Thr Glu Gly Tyr Gln Val Pro Pro Gly Ala Thr Tyr Thr Ala Ile
385 390 395 400

Glu Ala Pro Lys Gly Glu Phe Gly Val Tyr Leu Val Ser Asp Gly Ser
405 410 415

Ser Arg Pro Tyr Arg Cys Lys Ile Lys Ala Pro Gly Phe Ala His Leu
420 425 430

Ala Gly Leu Asp Lys Met Ser Lys Gly His Met Leu Ala Asp Val Val
435 440 445

Ala Ile Ile Gly Thr Gln Asp Ile Val Phe Gly Glu Val Asp Arg
450 455 460

<210> 107
<211> 693
<212> PRT
<213> Human

<400> 107

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln
1 5 10 15

His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys
20 25 30

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Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Gly Gly Trp
35 40 45

Arg Arg Ala Ala Gly Gly Arg Glu Ala Arg Gly Leu Leu Ala Pro Thr
50 55 60

Pro Asp Ala Pro Arg Pro Ala Ala Ala Leu Ile Val Arg Asp Gln Thr
65 70 75 80

Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln Arg Thr Ala Ser Val Leu
85 90 95

Trp Pro Trp Ile Asn Arg Asn Ala Arg Val Ala Asp Leu Val His Ile
100 105 110

Leu Thr His Leu Gln Leu Leu Arg Ala Arg Asp Ile Ile Thr Ala Trp
115 120 125

His Pro Pro Ala Pro Leu Pro Ser Pro Gly Thr Thr Ala Pro Arg Pro
130 135 140

Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu Ala Trp Ser Pro Arg Lys
145 150 155 160

Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser Pro Ala Phe Pro Gly Ser
165 170 175

Gln Thr His Ser Gly Pro Glu Leu Gly Leu Val Pro Ser Pro Ala Ser
180 185 190

Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro Ser Ser Thr Lys Pro Gly
195 200 205

Pro Glu Ser Ser Val Ser Leu Leu Gln Gly Ala Arg Pro Phe Pro Phe
210 215 220

Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly Thr His Asn Phe Ser Glu
225 230 235 240

Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly Cys Val Tyr Arg Ala Val
245 250 255

Met Arg Asn Thr Val Tyr Ala Val Lys Arg Leu Lys Glu Asn Ala Asp
260 265 270

Leu Glu Trp Thr Ala Val Lys Gln Ser Phe Leu Thr Glu Val Glu Gln
275 280 285

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

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Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr Gly Phe Leu Pro Asn Gly
305 310 315 320

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

Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu Gly Thr Ala Arg Ala Ile
340 345 350

Gln Phe Leu His Gln Asp Ser Pro Ser Leu Ile His Gly Asp Ile Lys
355 360 365

Ser Ser Asn Val Leu Leu Asp Glu Arg Leu Thr Pro Lys Leu Gly Asp
370 375 380

Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala Gly Ser Ser Pro Ser Gln
385 390 395 400

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

Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg Leu Ala Val Asp Thr Asp
420 425 430

Thr Phe Ser Phe Gly Val Val Val Leu Glu Thr Leu Ala Gly Gln Arg
435 440 445

Ala Val Lys Thr His Gly Ala Arg Thr Lys Tyr Leu Lys Asp Leu Val
450 455 460

Glu Glu Glu Ala Glu Glu Ala Gly Val Ala Leu Arg Ser Thr Gln Ser
465 470 475 480

Thr Leu Gln Ala Gly Leu Ala Ala Asp Ala Trp Ala Ala Pro Ile Ala
485 490 495

Met Gln Ile Tyr Lys Lys His Leu Gly Gln Leu Ala Cys Cys Cys Leu
500 505 510

His Arg Arg Ala Lys Arg Arg Pro Pro Met Thr Gln Glu Asn Ser Tyr
515 520 525

Val Ser Ser Thr Gly Arg Ala His Ser Gly Ala Ala Pro Trp Gln Pro
530 535 540

Leu Ala Ala Pro Ser Gly Ala Ser Ala Gln Ala Ala Glu Gln Leu Gln
545 550 555 560

Arg Gly Pro Asn Gln Pro Val Glu Ser Asp Glu Ser Leu Gly Gly Leu
565 570 575

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Ser Ala Ala Leu Arg Ser Trp His Leu Thr Pro Ser Cys Pro Leu Asp
580 585 590

Pro Ala Pro Leu Arg Glu Ala Gly Cys Pro Gln Gly Asp Thr Ala Gly
595 600 605

Glu Ser Ser Trp Gly Ser Gly Pro Gly Ser Arg Pro Thr Ala Val Glu
610 615 620

Gly Leu Ala Leu Gly Ser Ser Ala Ser Ser Ser Ser Glu Pro Pro Gln
625 630 635 640

Ile Ile Ile Asn Pro Ala Arg Gln Lys Met Val Gln Lys Leu Ala Leu
645 650 655

Tyr Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu Leu Ser Ser Ser Ser
660 665 670

Leu Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln Gly Pro Glu Glu Ser
675 680 685

Asp Glu Phe Gln Ser
690

<210> 108
<211> 712
<212> PRT
<213> Human

<400> 108

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln
1 5 10 15

His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys
20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu
35 40 45

Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln
50 55 60

Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val
65 70 75 80

Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg
85 90 95

Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly
100 105 110

Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu
Seite 170

115 120 125
 Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser
 130 135 140
 Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu
 145 150 155 160
 Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro
 165 170 175
 Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly
 180 185 190
 Ala Arg Pro Phe Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly
 195 200 205
 Thr His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly
 210 215 220
 Cys Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg
 225 230 235 240
 Leu Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe
 245 250 255
 Leu Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val
 260 265 270
 Asp Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr
 275 280 285
 Gly Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr
 290 295 300
 Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu
 305 310 315
 Gly Thr Ala Arg Ala Ile Gln Phe Leu His Gln Asp Ser Pro Ser Leu
 325 330 335
 Ile His Gly Asp Ile Lys Ser Ser Asn Val Leu Leu Asp Glu Arg Leu
 340 345 350
 Thr Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala
 355 360 365
 Gly Ser Ser Pro Ser Gln Ser Ser Met Val Ala Arg Thr Gln Thr Val
 370 375 380
 Arg Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg

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385				390				395				400			
Leu	Ala	Val	Asp	Thr 405	Asp	Thr	Phe	Ser	Phe 410	Gly	Val	Val	Val	Leu 415	Glu
Thr	Leu	Ala	Gly 420	Gln	Arg	Ala	Val	Lys 425	Thr	His	Gly	Ala	Arg 430	Thr	Lys
Tyr	Leu	Lys 435	Asp	Leu	Val	Glu	Glu 440	Glu	Ala	Glu	Glu	Ala 445	Gly	Val	Ala
Leu	Arg 450	Ser	Thr	Gln	Ser	Thr 455	Leu	Gln	Ala	Gly	Leu 460	Ala	Ala	Asp	Ala
Trp 465	Ala	Ala	Pro	Ile	Ala 470	Met	Gln	Ile	Tyr	Lys 475	Lys	His	Leu	Asp	Pro 480
Arg	Pro	Gly	Pro	Cys 485	Pro	Pro	Glu	Leu	Gly 490	Leu	Gly	Leu	Gly	Gln 495	Leu
Ala	Cys	Cys	Cys 500	Leu	His	Arg	Arg	Ala 505	Lys	Arg	Arg	Pro	Pro 510	Met	Thr
Gln	Val	Tyr 515	Glu	Arg	Leu	Glu	Lys 520	Leu	Gln	Ala	Val	Val 525	Ala	Gly	Val
Pro	Gly 530	His	Ser	Glu	Ala	Ala 535	Ser	Cys	Ile	Pro	Pro 540	Ser	Pro	Gln	Glu
Asn 545	Ser	Tyr	Val	Ser	Ser 550	Thr	Gly	Arg	Ala	His 555	Ser	Gly	Ala	Ala	Pro 560
Trp	Gln	Pro	Leu	Ala 565	Ala	Pro	Ser	Gly	Ala 570	Ser	Ala	Gln	Ala	Ala 575	Glu
Gln	Leu	Gln	Arg 580	Gly	Pro	Asn	Gln	Pro 585	Val	Glu	Ser	Asp	Glu 590	Ser	Leu
Gly	Gly	Leu 595	Ser	Ala	Ala	Leu	Arg 600	Ser	Trp	His	Leu	Thr 605	Pro	Ser	Cys
Pro	Leu 610	Asp	Pro	Ala	Pro	Leu 615	Arg	Glu	Ala	Gly	Cys 620	Pro	Gln	Gly	Asp
Thr 625	Ala	Gly	Glu	Ser	Ser 630	Trp	Gly	Ser	Gly	Pro 635	Gly	Ser	Arg	Pro	Thr 640
Ala	Val	Glu	Gly	Leu 645	Ala	Leu	Gly	Ser	Ser 650	Ala	Ser	Ser	Ser	Ser 655	Glu
Pro	Pro	Gln	Ile	Ile	Ile	Asn	Pro	Ala	Arg	Gln	Lys	Met	Val	Gln	Lys

660

665

670

Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu Leu Ser
 675 680 685

Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln Gly Pro
 690 695 700

Glu Glu Ser Asp Glu Phe Gln Ser
 705 710

<210> 109
 <211> 682
 <212> PRT
 <213> Human

<400> 109

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln
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His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys
 20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu
 35 40 45

Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln
 50 55 60

Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val
 65 70 75 80

Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg
 85 90 95

Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly
 100 105 110

Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu
 115 120 125

Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser
 130 135 140

Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu
 145 150 155 160

Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro
 165 170 175

Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly
 180 185 190

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Ala Arg Pro Phe Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly
195 200 205

Thr His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly
210 215 220

Cys Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg
225 230 235 240

Leu Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe
245 250 255

Leu Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val
260 265 270

Asp Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr
275 280 285

Gly Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr
290 295 300

Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu
305 310 315 320

Gly Thr Ala Arg Ala Ile Gln Phe Leu His Gln Asp Ser Pro Ser Leu
325 330 335

Ile His Gly Asp Ile Lys Ser Ser Asn Val Leu Leu Asp Glu Arg Leu
340 345 350

Thr Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala
355 360 365

Gly Ser Ser Pro Ser Gln Ser Ser Met Val Ala Arg Thr Gln Thr Val
370 375 380

Arg Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg
385 390 395 400

Leu Ala Val Asp Thr Asp Thr Phe Ser Phe Gly Val Val Val Leu Glu
405 410 415

Thr Leu Ala Gly Gln Arg Ala Val Lys Thr His Gly Ala Arg Thr Lys
420 425 430

Tyr Leu Lys Asp Leu Val Glu Glu Glu Ala Glu Glu Ala Gly Val Ala
435 440 445

Leu Arg Ser Thr Gln Ser Thr Leu Gln Ala Gly Leu Ala Ala Asp Ala
450 455 460

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Trp Ala Ala Pro Ile Ala Met Gln Ile Tyr Lys Lys His Leu Asp Pro
465 470 475 480

Arg Pro Gly Pro Cys Pro Pro Glu Leu Gly Leu Gly Leu Gly Gln Leu
485 490 495

Ala Cys Cys Cys Leu His Arg Arg Ala Lys Arg Arg Pro Pro Met Thr
500 505 510

Gln Glu Asn Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser Gly Ala
515 520 525

Ala Pro Trp Gln Pro Leu Ala Ala Pro Ser Gly Ala Ser Ala Gln Ala
530 535 540

Ala Glu Gln Leu Gln Arg Gly Pro Asn Gln Pro Val Glu Ser Asp Glu
545 550 555 560

Ser Leu Gly Gly Leu Ser Ala Ala Leu Arg Ser Trp His Leu Thr Pro
565 570 575

Ser Cys Pro Leu Asp Pro Ala Pro Leu Arg Glu Ala Gly Cys Pro Gln
580 585 590

Gly Asp Thr Ala Gly Glu Ser Ser Trp Gly Ser Gly Pro Gly Ser Arg
595 600 605

Pro Thr Ala Val Glu Gly Leu Ala Leu Gly Ser Ser Ala Ser Ser Ser
610 615 620

Ser Glu Pro Pro Gln Ile Ile Ile Asn Pro Ala Arg Gln Lys Met Val
625 630 635 640

Gln Lys Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu
645 650 655

Leu Ser Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln
660 665 670

Gly Pro Glu Glu Ser Asp Glu Phe Gln Ser
675 680

<210> 110
<211> 633
<212> PRT
<213> Human

<400> 110

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln
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His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys
20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Ala Ala Leu
35 40 45

Ile Val Arg Asp Gln Thr Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln
50 55 60

Arg Thr Ala Ser Val Leu Trp Pro Trp Ile Asn Arg Asn Ala Arg Val
65 70 75 80

Ala Asp Leu Val His Ile Leu Thr His Leu Gln Leu Leu Arg Ala Arg
85 90 95

Asp Ile Ile Thr Ala Trp His Pro Pro Ala Pro Leu Pro Ser Pro Gly
100 105 110

Thr Thr Ala Pro Arg Pro Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu
115 120 125

Ala Trp Ser Pro Arg Lys Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser
130 135 140

Pro Ala Phe Pro Gly Ser Gln Thr His Ser Gly Pro Glu Leu Gly Leu
145 150 155 160

Val Pro Ser Pro Ala Ser Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro
165 170 175

Ser Ser Thr Lys Pro Gly Pro Glu Ser Ser Val Ser Leu Leu Gln Gly
180 185 190

Ala Arg Pro Phe Pro Phe Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly
195 200 205

Thr His Asn Phe Ser Glu Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly
210 215 220

Cys Val Tyr Arg Ala Val Met Arg Asn Thr Val Tyr Ala Val Lys Arg
225 230 235 240

Leu Lys Glu Asn Ala Asp Leu Glu Trp Thr Ala Val Lys Gln Ser Phe
245 250 255

Leu Thr Glu Val Glu Gln Leu Ser Arg Phe Arg His Pro Asn Ile Val
260 265 270

Asp Phe Ala Gly Tyr Cys Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr
275 280 285

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Gly Phe Leu Pro Asn Gly Ser Leu Glu Asp Arg Leu His Cys Gln Thr
290 295 300

Gln Ala Cys Pro Pro Leu Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu
305 310 315 320

Gly Thr Ala Arg Ala Ile Gln Phe Leu His Gln Asp Ser Pro Ser Leu
325 330 335

Ile His Gly Asp Ile Lys Ser Ser Asn Val Leu Leu Asp Glu Arg Leu
340 345 350

Thr Pro Lys Leu Gly Asp Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala
355 360 365

Gly Ser Ser Pro Ser Gln Ser Ser Met Val Ala Arg Thr Gln Thr Val
370 375 380

Arg Gly Thr Leu Ala Tyr Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg
385 390 395 400

Leu Ala Val Asp Thr Asp Thr Phe Ser Phe Gly Val Val Val Leu Glu
405 410 415

Thr Leu Ala Gly Gln Arg Ala Val Lys Thr His Gly Ala Arg Thr Lys
420 425 430

Tyr Leu Val Tyr Glu Arg Leu Glu Lys Leu Gln Ala Val Val Ala Gly
435 440 445

Val Pro Gly His Ser Glu Ala Ala Ser Cys Ile Pro Pro Ser Pro Gln
450 455 460

Glu Asn Ser Tyr Val Ser Ser Thr Gly Arg Ala His Ser Gly Ala Ala
465 470 475 480

Pro Trp Gln Pro Leu Ala Ala Pro Ser Gly Ala Ser Ala Gln Ala Ala
485 490 495

Glu Gln Leu Gln Arg Gly Pro Asn Gln Pro Val Glu Ser Asp Glu Ser
500 505 510

Leu Gly Gly Leu Ser Ala Ala Leu Arg Ser Trp His Leu Thr Pro Ser
515 520 525

Cys Pro Leu Asp Pro Ala Pro Leu Arg Glu Ala Gly Cys Pro Gln Gly
530 535 540

Asp Thr Ala Gly Glu Ser Ser Trp Gly Ser Gly Pro Gly Ser Arg Pro
545 550 555 560

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Thr Ala Val Glu Gly Leu Ala Leu Gly Ser Ser Ala Ser Ser Ser Ser
565 570 575

Glu Pro Pro Gln Ile Ile Ile Asn Pro Ala Arg Gln Lys Met Val Gln
580 585 590

Lys Leu Ala Leu Tyr Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu Leu
595 600 605

Ser Ser Ser Ser Leu Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln Gly
610 615 620

Pro Glu Glu Ser Asp Glu Phe Gln Ser
625 630

<210> 111
<211> 708
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<400> 111

Met Ala Gly Gly Pro Gly Pro Gly Glu Pro Ala Ala Pro Gly Ala Gln
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His Phe Leu Tyr Glu Val Pro Pro Trp Val Met Cys Arg Phe Tyr Lys
20 25 30

Val Met Asp Ala Leu Glu Pro Ala Asp Trp Cys Gln Phe Gly Gly Trp
35 40 45

Arg Arg Ala Ala Gly Gly Arg Glu Ala Arg Gly Leu Leu Ala Pro Thr
50 55 60

Pro Asp Ala Pro Arg Pro Ala Ala Ala Leu Ile Val Arg Asp Gln Thr
65 70 75 80

Glu Leu Arg Leu Cys Glu Arg Ser Gly Gln Arg Thr Ala Ser Val Leu
85 90 95

Trp Pro Trp Ile Asn Arg Asn Ala Arg Val Ala Asp Leu Val His Ile
100 105 110

Leu Thr His Leu Gln Leu Leu Arg Ala Arg Asp Ile Ile Thr Ala Trp
115 120 125

His Pro Pro Ala Pro Leu Pro Ser Pro Gly Thr Thr Ala Pro Arg Pro
130 135 140

Ser Ser Ile Pro Ala Pro Ala Glu Ala Glu Ala Trp Ser Pro Arg Lys
145 150 155 160

2282743

Leu Pro Ser Ser Ala Ser Thr Phe Leu Ser Pro Ala Phe Pro Gly Ser
 165 170 175

Gln Thr His Ser Gly Pro Glu Leu Gly Leu Val Pro Ser Pro Ala Ser
 180 185 190

Leu Trp Pro Pro Pro Pro Ser Pro Ala Pro Ser Ser Thr Lys Pro Gly
 195 200 205

Pro Glu Ser Ser Val Ser Leu Leu Gln Gly Ala Arg Pro Phe Pro Phe
 210 215 220

Cys Trp Pro Leu Cys Glu Ile Ser Arg Gly Thr His Asn Phe Ser Glu
 225 230 235 240

Glu Leu Lys Ile Gly Glu Gly Gly Phe Gly Cys Val Tyr Arg Ala Val
 245 250 255

Met Arg Asn Thr Val Tyr Ala Val Lys Arg Leu Lys Glu Asn Ala Asp
 260 265 270

Leu Glu Trp Thr Ala Val Lys Gln Ser Phe Leu Thr Glu Val Glu Gln
 275 280 285

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

Ala Gln Asn Gly Phe Tyr Cys Leu Val Tyr Gly Phe Leu Pro Asn Gly
 305 310 315 320

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

Ser Trp Pro Gln Arg Leu Asp Ile Leu Leu Gly Thr Ala Arg Ala Ile
 340 345 350

Gln Phe Leu His Gln Asp Ser Pro Ser Leu Ile His Gly Asp Ile Lys
 355 360 365

Ser Ser Asn Val Leu Leu Asp Glu Arg Leu Thr Pro Lys Leu Gly Asp
 370 375 380

Phe Gly Leu Ala Arg Phe Ser Arg Phe Ala Gly Ser Ser Pro Ser Gln
 385 390 395 400

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

Leu Pro Glu Glu Tyr Ile Lys Thr Gly Arg Leu Ala Val Asp Thr Asp
 420 425 430

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Thr Phe Ser Phe Gly Val Val Val Leu Glu Thr Leu Ala Gly Gln Arg
435 440 445

Ala Val Lys Thr His Gly Ala Arg Thr Lys Tyr Leu Lys Asp Leu Val
450 455 460

Glu Glu Glu Ala Glu Glu Ala Gly Val Ala Leu Arg Ser Thr Gln Ser
465 470 475 480

Thr Leu Gln Ala Gly Leu Ala Ala Asp Ala Trp Ala Ala Pro Ile Ala
485 490 495

Met Gln Ile Tyr Lys Lys His Leu Asp Pro Arg Pro Gly Pro Cys Pro
500 505 510

Pro Glu Leu Gly Leu Gly Leu Gly Gln Leu Ala Cys Cys Cys Leu His
515 520 525

Arg Arg Ala Lys Arg Arg Pro Pro Met Thr Gln Glu Asn Ser Tyr Val
530 535 540

Ser Ser Thr Gly Arg Ala His Ser Gly Ala Ala Pro Trp Gln Pro Leu
545 550 555 560

Ala Ala Pro Ser Gly Ala Ser Ala Gln Ala Ala Glu Gln Leu Gln Arg
565 570 575

Gly Pro Asn Gln Pro Val Glu Ser Asp Glu Ser Leu Gly Gly Leu Ser
580 585 590

Ala Ala Leu Arg Ser Trp His Leu Thr Pro Ser Cys Pro Leu Asp Pro
595 600 605

Ala Pro Leu Arg Glu Ala Gly Cys Pro Gln Gly Asp Thr Ala Gly Glu
610 615 620

Ser Ser Trp Gly Ser Gly Pro Gly Ser Arg Pro Thr Ala Val Glu Gly
625 630 635 640

Leu Ala Leu Gly Ser Ser Ala Ser Ser Ser Ser Glu Pro Pro Gln Ile
645 650 655

Ile Ile Asn Pro Ala Arg Gln Lys Met Val Gln Lys Leu Ala Leu Tyr
660 665 670

Glu Asp Gly Ala Leu Asp Ser Leu Gln Leu Leu Ser Ser Ser Ser Leu
675 680 685

Pro Gly Leu Gly Leu Glu Gln Asp Arg Gln Gly Pro Glu Glu Ser Asp
690 695 700

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Glu Phe Gln Ser
705

<210> 112
<211> 140
<212> PRT
<213> Human

<400> 112

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

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

Thr Glu Cys Pro Gly Glu Ala Ile Pro His Pro Pro Gly Glu Cys Arg
35 40 45

Ile Ala Pro Phe Ser Pro Arg Ser Ser Arg Ser Trp Gln His Gln Asp
50 55 60

Pro Thr Ser Leu Leu Ser Gly Leu Pro Lys Ala Asp Pro Gly His Trp
65 70 75 80

Trp Ala Ser Phe Phe Phe Gly Lys Ser Thr Leu Pro Phe Met Ala Thr
85 90 95

Val Leu Glu Ser Ala Glu His Ser Glu Pro Pro Gln Ala Ser Ser Ser
100 105 110

Met Thr Ala Cys Gly Leu Ala Arg Asp Ala Pro Arg Lys Gln Pro Gly
115 120 125

Gly Gln Ser Ser Thr Ala Ser Ala Gly Pro Pro Ser
130 135 140

<210> 113
<211> 70
<212> PRT
<213> Human

<400> 113

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

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

Thr Glu Cys Pro Gly Glu Ala Ile Pro His Pro Pro Gly Leu Pro Lys
35 40 45

Ala Asp Pro Gly His Trp Trp Ala Ser Phe Phe Phe Gly Lys Ser Thr
50 55 60

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Leu Pro Pro Pro Thr Leu
65 70

<210> 114
<211> 114
<212> PRT
<213> Human

<400> 114

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

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

Thr Glu Cys Pro Gly Glu Ala Ile Pro His Pro Pro Gly Leu Pro Lys
35 40 45

Ala Asp Pro Gly His Trp Trp Ala Ser Phe Phe Phe Gly Lys Ser Thr
50 55 60

Leu Pro Phe Met Ala Thr Val Leu Glu Ser Ala Glu His Ser Glu Pro
65 70 75 80

Pro Gln Ala Ser Ser Ser Met Thr Ala Cys Gly Leu Ala Arg Asp Ala
85 90 95

Pro Arg Lys Gln Pro Gly Gly Gln Ser Ser Thr Ala Ser Ala Gly Pro
100 105 110

Pro Ser

<210> 115
<211> 400
<212> PRT
<213> Human

<400> 115

Met Glu Asp Gly Val Tyr Glu Pro Pro Asp Leu Thr Pro Glu Glu Arg
1 5 10 15

Met Glu Leu Glu Asn Ile Arg Arg Arg Lys Gln Glu Leu Leu Val Glu
20 25 30

Ile Gln Arg Leu Arg Glu Glu Leu Ser Glu Ala Met Ser Glu Val Glu
35 40 45

Gly Leu Glu Ala Asn Glu Gly Ser Lys Thr Leu Gln Arg Asn Arg Lys
50 55 60

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Met Ala Met Gly Arg Lys Lys Phe Asn Met Asp Pro Lys Lys Gly Ile
65 70 75 80

Gln Phe Leu Val Glu Asn Glu Leu Leu Gln Asn Thr Pro Glu Glu Ile
85 90 95

Ala Arg Phe Leu Tyr Lys Gly Glu Gly Leu Asn Lys Thr Ala Ile Gly
100 105 110

Asp Tyr Leu Gly Glu Arg Glu Glu Leu Asn Leu Ala Val Leu His Ala
115 120 125

Phe Val Asp Leu His Glu Phe Thr Asp Leu Asn Leu Val Gln Ala Leu
130 135 140

Arg Gln Phe Leu Trp Ser Phe Arg Leu Pro Gly Glu Ala Gln Lys Ile
145 150 155 160

Asp Arg Met Met Glu Ala Phe Ala Gln Arg Tyr Cys Leu Cys Asn Pro
165 170 175

Gly Val Phe Gln Ser Thr Asp Thr Cys Tyr Val Leu Ser Phe Ala Val
180 185 190

Ile Met Leu Asn Thr Ser Leu His Asn Pro Asn Val Arg Asp Lys Pro
195 200 205

Gly Leu Glu Arg Phe Val Ala Met Asn Arg Gly Ile Asn Glu Gly Gly
210 215 220

Asp Leu Pro Glu Glu Leu Leu Arg Asn Leu Tyr Asp Ser Ile Arg Asn
225 230 235 240

Glu Pro Phe Lys Ile Pro Glu Asp Asp Gly Asn Asp Leu Thr His Thr
245 250 255

Phe Phe Asn Pro Asp Arg Glu Gly Trp Leu Leu Lys Leu Gly Arg Gly
260 265 270

Arg Val Lys Thr Trp Lys Arg Arg Trp Phe Ile Leu Thr Asp Asn Cys
275 280 285

Leu Tyr Tyr Phe Glu Tyr Thr Thr Asp Lys Glu Pro Arg Gly Ile Ile
290 295 300

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

Asn Cys Phe Glu Leu Tyr Ile Pro Asn Asn Lys Gly Gln Leu Ile Lys
325 330 335

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Ala Cys Lys Thr Glu Ala Asp Gly Arg Val Val Glu Gly Asn His Met
340 345 350

Val Tyr Arg Ile Ser Ala Pro Thr Gln Glu Glu Lys Asp Glu Trp Ile
355 360 365

Lys Ser Ile Gln Ala Ala Val Ser Val Asp Pro Phe Tyr Glu Met Leu
370 375 380

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

<210> 116
<211> 399
<212> PRT
<213> Human

<400> 116

Met Glu Asp Gly Val Tyr Glu Pro Pro Asp Leu Thr Pro Glu Glu Arg
1 5 10 15

Met Glu Leu Glu Asn Ile Arg Arg Arg Lys Gln Glu Leu Leu Val Glu
20 25 30

Ile Gln Arg Leu Arg Glu Glu Leu Ser Glu Ala Met Ser Glu Val Glu
35 40 45

Gly Leu Glu Ala Asn Glu Gly Ser Lys Thr Leu Gln Arg Asn Arg Lys
50 55 60

Met Ala Met Gly Arg Lys Lys Phe Asn Met Asp Pro Lys Lys Gly Ile
65 70 75 80

Gln Phe Leu Val Glu Asn Glu Leu Leu Gln Asn Thr Pro Glu Glu Ile
85 90 95

Ala Arg Phe Leu Tyr Lys Gly Glu Gly Leu Asn Lys Thr Ala Ile Gly
100 105 110

Asp Tyr Leu Gly Glu Arg Glu Glu Leu Asn Leu Ala Val Leu His Ala
115 120 125

Phe Val Asp Leu His Glu Phe Thr Asp Leu Asn Leu Val Gln Ala Leu
130 135 140

Arg Gln Phe Leu Trp Ser Phe Arg Leu Pro Gly Glu Ala Gln Lys Ile
145 150 155 160

Asp Arg Met Met Glu Ala Phe Ala Gln Arg Tyr Cys Leu Cys Asn Pro
165 170 175

Gly Val Phe Gln Ser Thr Asp Thr Cys Tyr Val Leu Ser Phe Ala Val

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180

185

190

Ile Met Leu Asn Thr Ser Leu His Asn Pro Asn Val Arg Asp Lys Pro
 195 200 205

Gly Leu Glu Arg Phe Val Ala Met Asn Arg Gly Ile Asn Glu Gly Gly
 210 215 220

Asp Leu Pro Glu Glu Leu Leu Arg Asn Leu Tyr Asp Ser Ile Arg Asn
 225 230 235 240

Glu Pro Phe Lys Ile Pro Glu Asp Asp Gly Asn Asp Leu Thr His Thr
 245 250 255

Phe Phe Asn Pro Asp Arg Glu Gly Trp Leu Leu Lys Leu Gly Gly Arg
 260 265 270

Val Lys Thr Trp Lys Arg Arg Trp Phe Ile Leu Thr Asp Asn Cys Leu
 275 280 285

Tyr Tyr Phe Glu Tyr Thr Thr Asp Lys Glu Pro Arg Gly Ile Ile Pro
 290 295 300

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

Cys Phe Glu Leu Tyr Ile Pro Asn Asn Lys Gly Gln Leu Ile Lys Ala
 325 330 335

Cys Lys Thr Glu Ala Asp Gly Arg Val Val Glu Gly Asn His Met Val
 340 345 350

Tyr Arg Ile Ser Ala Pro Thr Gln Glu Glu Lys Asp Glu Trp Ile Lys
 355 360 365

Ser Ile Gln Ala Ala Val Ser Val Asp Pro Phe Tyr Glu Met Leu Ala
 370 375 380

Ala Arg Lys Lys Arg Ile Ser Val Lys Lys Lys Gln Glu Gln Pro
 385 390 395

<210> 117
 <211> 165
 <212> PRT
 <213> Human

<400> 117

Met Val Asn Pro Thr Val Phe Phe Asp Ile Ala Val Asp Gly Glu Pro
 1 5 10 15

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

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Ala Glu Asn Phe Arg Ala Leu Ser Thr Gly Glu Lys Gly Phe Gly Tyr
35 40 45
Lys Gly Ser Cys Phe His Arg Ile Ile Pro Gly Phe Met Cys Gln Gly
50 55 60
Gly Asp Phe Thr Arg His Asn Gly Thr Gly Gly Lys Ser Ile Tyr Gly
65 70 75 80
Glu Lys Phe Glu Asp Glu Asn Phe Ile Leu Lys His Thr Gly Pro Gly
85 90 95
Ile Leu Ser Met Ala Asn Ala Gly Pro Asn Thr Asn Gly Ser Gln Phe
100 105 110
Phe Ile Cys Thr Ala Lys Thr Glu Trp Leu Asp Gly Lys His Val Val
115 120 125
Phe Gly Lys Val Lys Glu Gly Met Asn Ile Val Glu Ala Met Glu Arg
130 135 140
Phe Gly Ser Arg Asn Gly Lys Thr Ser Lys Lys Ile Thr Ile Ala Asp
145 150 155 160
Cys Gly Gln Leu Glu
165

<210> 118
<211> 44
<212> PRT
<213> Human

<400> 118

Thr Ala Glu Glu Glu Ala Ser Ser Glu Ala Cys Ala Gly Pro Ala Thr
1 5 10 15
Arg Ser Pro Gly Trp Gly Asp Pro Gly Ile Ser His Arg Asp Cys Cys
20 25 30
Arg Arg Lys Ala Glu Trp Gly Thr Ala Glu Ser Arg
35 40

<210> 119
<211> 97
<212> PRT
<213> Human

<400> 119

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

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Pro Lys His Cys Gly Leu Cys Trp Leu Leu Cys Ser Glu Arg Leu Leu
20 25 30

Leu Pro Gly Val Arg Leu Pro Ala Gln Arg Leu Pro Gly Gly Pro Ser
35 40 45

Pro Leu Pro Asp Pro Gly Leu Pro Thr Ser Leu Leu Ala Ser Ala Thr
50 55 60

Gly His Pro Ser Gly Tyr Ser Pro Gly Asn Ser Val Ser Thr Ser Gly
65 70 75 80

Gln Pro Gln Pro His Pro Trp Arg His Gln Glu Phe Gln Arg Pro Ser
85 90 95

Gly

<210> 120
<211> 81
<212> PRT
<213> Human

<400> 120

Leu Arg Gly Leu Ala Pro Pro Ser Pro Pro Pro Val Ile Val Arg Arg
1 5 10 15

Gly Pro Arg Gly Val Ala Ala Gln Ile Pro Pro Ala Ser Lys Leu Lys
20 25 30

His Gly Gly His Pro Leu Gln Arg Leu Ala Arg Gly His Pro Arg Leu
35 40 45

Leu Pro Ala Pro Pro Gly Phe His Phe Gln Gln Gln Leu Leu Gln Gln
50 55 60

Tyr Arg Val Pro Arg Gly Ser His Ser Pro Pro Pro Arg Ser Pro Gln
65 70 75 80

Gly

<210> 121
<211> 119
<212> PRT
<213> Human

<400> 121

Ala Pro Trp Pro Ser Ala Pro Val Pro Ala Thr Arg Asp Arg Ala Pro
1 5 10 15

Arg Pro Ala Arg Gly Arg Arg Pro Asp Pro Thr Ser Gln Gln Ala Lys
20 25 30

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Ala Trp Arg Pro Ser Pro Pro Ala Ala Arg Ser Trp Pro Pro Thr Thr
35 40 45

Thr Thr Gly Ala Ala Trp Val Pro Leu Pro Ala Thr Ala Pro Ala Ala
50 55 60

Val Pro Ser Ala Pro Gly Lys Pro Phe Pro Thr Pro Gln Val Ser Pro
65 70 75 80

Arg Leu Thr Arg Val Ile Gly Gly Pro Ala Ser Phe Ser Gly Ser Pro
85 90 95

Pro Ser Arg Ser Trp Pro Arg Cys Trp Ser Pro Gln Ser Thr Arg Asn
100 105 110

Leu Pro Arg Pro Pro Ala Ala
115

<210> 122
<211> 29
<212> PRT
<213> Human

<400> 122

Trp Thr Cys Ser Pro His Pro Thr Pro Thr Thr Arg Arg Ser Thr Thr
1 5 10 15

Ser Arg Ser Ala Ser Trp Ser Ala Arg Cys Ala Ser Thr
20 25