735022000240SEQLISTING

SEQUENCE LISTING

<110> ROSENTHAL, Arnon

<120> ANTI-SORTILIN ANTIBODIES AND METHODS OF USE THEREOF

<130> 735022000240

<140> Not Yet Assigned
<141> Concurrently Herewith

<150> US 62/144,270
<151> 2015-04-07

<160> 714

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 830
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 1

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Met Glu Arg Pro Trp Gly Ala Ala Asp Gly Leu Ser Arg Trp Pro His
 1               5                  10                  15
Gly Leu Gly Leu Leu Leu Leu Leu Gln Leu Leu Pro Pro Ser Thr Leu
            20                  25                  30
Ser Gln Asp Arg Leu Asp Ala Pro Pro Pro Pro Ala Ala Pro Leu Pro
        35                  40                  45
Arg Trp Ser Gly Pro Ile Gly Val Ser Trp Gly Leu Arg Ala Ala Ala
    50                  55                  60
Ala Gly Gly Ala Phe Pro Arg Gly Gly Arg Trp Arg Arg Ser Ala Pro
65                  70                  75                  80
Gly Glu Asp Glu Glu Cys Gly Arg Val Arg Asp Phe Val Ala Lys Leu
                85                  90                  95
Ala Asn Asn Thr His Gln His Val Phe Asp Asp Leu Arg Gly Ser Val
            100                 105                 110
Ser Leu Ser Trp Val Gly Asp Ser Thr Gly Val Ile Leu Val Leu Thr
        115                 120                 125
Thr Phe His Val Pro Leu Val Ile Met Thr Phe Gly Gln Ser Lys Leu
    130                 135                 140
Tyr Arg Ser Glu Asp Tyr Gly Lys Asn Phe Lys Asp Ile Thr Asp Leu
145                 150                 155                 160
Ile Asn Asn Thr Phe Ile Arg Thr Glu Phe Gly Met Ala Ile Gly Pro
                165                 170                 175
Glu Asn Ser Gly Lys Val Val Leu Thr Ala Glu Val Ser Gly Gly Ser
            180                 185                 190
Arg Gly Gly Arg Ile Phe Arg Ser Ser Asp Phe Ala Lys Asn Phe Val
        195                 200                 205
Gln Thr Asp Leu Pro Phe His Pro Leu Thr Gln Met Met Tyr Ser Pro
    210                 215                 220
Gln Asn Ser Asp Tyr Leu Leu Ala Leu Ser Thr Glu Asn Gly Leu Trp
225                 230                 235                 240
Val Ser Lys Asn Phe Gly Gly Lys Trp Glu Glu Ile His Lys Ala Val
                245                 250                 255
Cys Leu Ala Lys Trp Gly Ser Asp Asn Thr Ile Phe Phe Thr Thr Tyr
            260                 265                 270
Ala Asn Gly Ser Cys Lys Ala Asp Leu Gly Ala Leu Glu Leu Trp Arg
        275                 280                 285
Thr Ser Asp Leu Gly Lys Ser Phe Lys Thr Ile Gly Val Lys Ile Tyr
    290                 295                 300
Ser Phe Gly Leu Gly Gly Arg Phe Leu Phe Ala Ser Val Met Ala Asp
```

305 310 315 320
Lys Asp Thr Thr Arg Arg Ile His Val Ser Thr Asp Gln Gly Asp Thr
325 330 335
Trp Ser Met Ala Gln Leu Pro Ser Val Gly Gln Glu Gln Phe Tyr Ser
340 345 350
Ile Leu Ala Ala Asn Asp Asp Met Val Phe Met His Val Asp Glu Pro
355 360 365
Gly Asp Thr Gly Phe Gly Thr Ile Phe Thr Ser Asp Asp Arg Gly Ile
370 375 380
Val Tyr Ser Lys Ser Leu Asp Arg His Leu Tyr Thr Thr Thr Gly Gly
385 390 395 400
Glu Thr Asp Phe Thr Asn Val Thr Ser Leu Arg Gly Val Tyr Ile Thr
405 410 415
Ser Val Leu Ser Glu Asp Asn Ser Ile Gln Thr Met Ile Thr Phe Asp
420 425 430
Gln Gly Gly Arg Trp Thr His Leu Arg Lys Pro Glu Asn Ser Glu Cys
435 440 445
Asp Ala Thr Ala Lys Asn Lys Asn Glu Cys Ser Leu His Ile His Ala
450 455 460
Ser Tyr Ser Ile Ser Gln Lys Leu Asn Val Pro Met Ala Pro Leu Ser
465 470 475 480
Glu Pro Asn Ala Val Gly Ile Val Ile Ala His Gly Ser Val Gly Asp
485 490 495
Ala Ile Ser Val Met Val Pro Asp Val Tyr Ile Ser Asp Asp Gly Gly
500 505 510
Tyr Ser Trp Thr Lys Met Leu Glu Gly Pro His Tyr Tyr Thr Ile Leu
515 520 525
Asp Ser Gly Gly Ile Ile Val Ala Ile Glu His Ser Ser Arg Pro Ile
530 535 540
Asn Val Ile Lys Phe Ser Thr Asp Glu Gly Gln Cys Trp Gln Thr Tyr
545 550 555 560
Thr Phe Thr Arg Asp Pro Ile Tyr Phe Thr Gly Leu Ala Ser Glu Pro
565 570 575
Gly Ala Arg Ser Met Asn Ile Ser Ile Trp Gly Phe Thr Glu Ser Phe
580 585 590
Leu Thr Ser Gln Trp Val Ser Tyr Thr Ile Asp Phe Lys Asp Ile Leu
595 600 605
Glu Arg Asn Cys Glu Glu Lys Asp Tyr Thr Ile Trp Leu Ala His Ser
610 615 620
Thr Asp Pro Glu Asp Tyr Glu Asp Gly Cys Ile Leu Gly Tyr Lys Glu
625 630 635 640
Gln Phe Leu Arg Leu Arg Lys Ser Ser Val Cys Gln Asn Gly Arg Asp
645 650 655
Tyr Val Val Thr Lys Gln Pro Ser Ile Cys Leu Cys Ser Leu Glu Asp
660 665 670
Phe Leu Cys Asp Phe Gly Tyr Tyr Arg Pro Glu Asn Asp Ser Lys Cys
675 680 685
Val Glu Gln Pro Glu Leu Lys Gly His Asp Leu Glu Phe Cys Leu Tyr
690 695 700
Gly Arg Glu Glu His Leu Thr Thr Asn Gly Tyr Arg Lys Ile Pro Gly
705 710 715 720
Asp Lys Cys Gln Gly Gly Val Asn Pro Val Arg Glu Val Lys Asp Leu
725 730 735
Lys Lys Lys Cys Thr Ser Asn Phe Leu Ser Pro Glu Lys Gln Asn Ser
740 745 750
Lys Ser Asn Ser Val Pro Ile Ile Leu Ala Ile Val Gly Leu Met Leu
755 760 765
Val Thr Val Val Ala Gly Val Leu Ile Val Lys Lys Tyr Val Cys Gly
770 775 780
Gly Arg Phe Leu Val His Arg Tyr Ser Val Leu Gln Gln His Ala Glu
785 790 795 800
Ala Asn Gly Val Asp Gly Val Asp Ala Leu Asp Thr Ala Ser His Thr
805 810 815
Asn Lys Ser Gly Tyr His Asp Asp Ser Asp Glu Asp Leu Leu
820 825 830

<210> 2

<211> 825
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 2

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Met Glu Arg Pro Arg Gly Ala Ala Asp Gly Leu Leu Arg Trp Pro Leu
 1               5                  10                  15
Gly Leu Leu Leu Leu Leu Gln Leu Leu Pro Pro Ala Ala Val Gly Gln
            20                  25                  30
Asp Arg Leu Asp Ala Pro Pro Pro Pro Ala Pro Pro Leu Leu Arg Trp
        35                  40                  45
Ala Gly Pro Val Gly Val Ser Trp Gly Leu Arg Ala Ala Ala Pro Gly
    50                  55                  60
Gly Pro Val Pro Arg Ala Gly Arg Trp Arg Arg Gly Ala Pro Ala Glu
65                  70                  75                  80
Asp Gln Asp Cys Gly Arg Leu Pro Asp Phe Ile Ala Lys Leu Thr Asn
                85                  90                  95
Asn Thr His Gln His Val Phe Asp Asp Leu Ser Gly Ser Val Ser Leu
            100                 105                 110
Ser Trp Val Gly Asp Ser Thr Gly Val Ile Leu Val Leu Thr Thr Phe
        115                 120                 125
Gln Val Pro Leu Val Ile Val Ser Phe Gly Gln Ser Lys Leu Tyr Arg
    130                 135                 140
Ser Glu Asp Tyr Gly Lys Asn Phe Lys Asp Ile Thr Asn Leu Ile Asn
145                 150                 155                 160
Asn Thr Phe Ile Arg Thr Glu Phe Gly Met Ala Ile Gly Pro Glu Asn
                165                 170                 175
Ser Gly Lys Val Ile Leu Thr Ala Glu Val Ser Gly Gly Ser Arg Gly
            180                 185                 190
Gly Arg Val Phe Arg Ser Ser Asp Phe Ala Lys Asn Phe Val Gln Thr
        195                 200                 205
Asp Leu Pro Phe His Pro Leu Thr Gln Met Met Tyr Ser Pro Gln Asn
    210                 215                 220
Ser Asp Tyr Leu Leu Ala Leu Ser Thr Glu Asn Gly Leu Trp Val Ser
225                 230                 235                 240
Lys Asn Phe Gly Glu Lys Trp Glu Glu Ile His Lys Ala Val Cys Leu
                245                 250                 255
Ala Lys Trp Gly Pro Asn Asn Ile Ile Phe Phe Thr Thr His Val Asn
            260                 265                 270
Gly Ser Cys Lys Ala Asp Leu Gly Ala Leu Glu Leu Trp Arg Thr Ser
        275                 280                 285
Asp Leu Gly Lys Thr Phe Lys Thr Ile Gly Val Lys Ile Tyr Ser Phe
    290                 295                 300
Gly Leu Gly Gly Arg Phe Leu Phe Ala Ser Val Met Ala Asp Lys Asp
305                 310                 315                 320
Thr Thr Arg Arg Ile His Val Ser Thr Asp Gln Gly Asp Thr Trp Ser
                325                 330                 335
Met Ala Gln Leu Pro Ser Val Gly Gln Glu Gln Phe Tyr Ser Ile Leu
            340                 345                 350
Ala Ala Asn Glu Asp Met Val Phe Met His Val Asp Glu Pro Gly Asp
        355                 360                 365
Thr Gly Phe Gly Thr Ile Phe Thr Ser Asp Asp Arg Gly Ile Val Tyr
    370                 375                 380
Ser Lys Ser Leu Asp Arg His Leu Tyr Thr Thr Thr Gly Gly Glu Thr
385                 390                 395                 400
Asp Phe Thr Asn Val Thr Ser Leu Arg Gly Val Tyr Ile Thr Ser Thr
                405                 410                 415
Leu Ser Glu Asp Asn Ser Ile Gln Ser Met Ile Thr Phe Asp Gln Gly
            420                 425                 430
Gly Arg Trp Glu His Leu Arg Lys Pro Glu Asn Ser Lys Cys Asp Ala
        435                 440                 445
Thr Ala Lys Asn Lys Asn Glu Cys Ser Leu His Ile His Ala Ser Tyr
    450                 455                 460
Ser Ile Ser Gln Lys Leu Asn Val Pro Met Ala Pro Leu Ser Glu Pro
465                 470                 475                 480
```

```
Asn Ala Val Gly Ile Val Ile Ala His Gly Ser Val Gly Asp Ala Ile
                485                 490                 495
Ser Val Met Val Pro Asp Val Tyr Ile Ser Asp Asp Gly Gly Tyr Ser
            500                 505                 510
Trp Ala Lys Met Leu Glu Gly Pro His Tyr Tyr Thr Ile Leu Asp Ser
        515                 520                 525
Gly Gly Ile Ile Val Ala Ile Glu His Ser Asn Arg Pro Ile Asn Val
    530                 535                 540
Ile Lys Phe Ser Thr Asp Glu Gly Gln Cys Trp Gln Ser Tyr Val Phe
545                 550                 555                 560
Thr Gln Glu Pro Ile Tyr Phe Thr Gly Leu Ala Ser Glu Pro Gly Ala
                565                 570                 575
Arg Ser Met Asn Ile Ser Ile Trp Gly Phe Thr Glu Ser Phe Ile Thr
            580                 585                 590
Arg Gln Trp Val Ser Tyr Thr Val Asp Phe Lys Asp Ile Leu Glu Arg
        595                 600                 605
Asn Cys Glu Glu Asp Asp Tyr Thr Thr Trp Leu Ala His Ser Thr Asp
    610                 615                 620
Pro Gly Asp Tyr Lys Asp Gly Cys Ile Leu Gly Tyr Lys Glu Gln Phe
625                 630                 635                 640
Leu Arg Leu Arg Lys Ser Ser Val Cys Gln Asn Gly Arg Asp Tyr Val
                645                 650                 655
Val Ala Lys Gln Pro Ser Val Cys Pro Cys Ser Leu Glu Asp Phe Leu
            660                 665                 670
Cys Asp Phe Gly Tyr Phe Arg Pro Glu Asn Ala Ser Glu Cys Val Glu
        675                 680                 685
Gln Pro Glu Leu Lys Gly His Glu Leu Glu Phe Cys Leu Tyr Gly Lys
    690                 695                 700
Glu Glu His Leu Thr Thr Asn Gly Tyr Arg Lys Ile Pro Gly Asp Lys
705                 710                 715                 720
Cys Gln Gly Gly Met Asn Pro Ala Arg Glu Val Lys Asp Leu Lys Lys
                725                 730                 735
Lys Cys Thr Ser Asn Phe Leu Asn Pro Thr Lys Gln Asn Ser Lys Ser
            740                 745                 750
Asn Ser Val Pro Ile Ile Leu Ala Ile Val Gly Leu Met Leu Val Thr
        755                 760                 765
Val Val Ala Gly Val Leu Ile Val Lys Lys Tyr Val Cys Gly Gly Arg
    770                 775                 780
Phe Leu Val His Arg Tyr Ser Val Leu Gln Gln His Ala Glu Ala Asp
785                 790                 795                 800
Gly Val Glu Ala Leu Asp Ser Thr Ser His Ala Lys Ser Gly Tyr His
                805                 810                 815
Asp Asp Ser Asp Glu Asp Leu Leu Glu
            820                 825
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<210> 3
<211> 825
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 3

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Met Glu Arg Pro Arg Gly Ala Ala Asp Gly Leu Leu Arg Trp Pro Leu
 1               5                  10                  15
Gly Leu Leu Leu Leu Leu Gln Leu Leu Pro Pro Ala Ala Val Gly Gln
            20                  25                  30
Asp Arg Leu Asp Ala Pro Pro Pro Pro Ala Pro Pro Leu Leu Arg Trp
        35                  40                  45
Ala Gly Pro Val Gly Val Ser Trp Gly Leu Arg Ala Ala Ala Pro Gly
    50                  55                  60
Gly Pro Val Pro Arg Ala Gly Arg Trp Arg Arg Gly Ala Pro Ala Glu
65                  70                  75                  80
Asp Gln Asp Cys Gly Arg Leu Pro Asp Phe Ile Ala Lys Leu Thr Asn
                85                  90                  95
Asn Thr His Gln His Val Phe Asp Asp Leu Ser Gly Ser Val Ser Leu
```

```
                100                 105                 110
Ser Trp Val Gly Asp Ser Thr Gly Val Ile Leu Val Leu Thr Thr Phe
            115                 120                 125
Gln Val Pro Leu Val Ile Val Ser Phe Gly Gln Ser Lys Leu Tyr Arg
    130                 135                 140
Ser Glu Asp Tyr Gly Lys Asn Phe Lys Asp Ile Thr Asn Leu Ile Asn
145                 150                 155                 160
Asn Thr Phe Ile Arg Thr Glu Phe Gly Met Ala Ile Gly Pro Glu Asn
                165                 170                 175
Ser Gly Lys Val Ile Leu Thr Ala Glu Val Ser Gly Gly Ser Arg Gly
            180                 185                 190
Gly Arg Val Phe Arg Ser Ser Asp Phe Ala Lys Asn Phe Val Gln Thr
        195                 200                 205
Asp Leu Pro Phe His Pro Leu Thr Gln Met Met Tyr Ser Pro Gln Asn
    210                 215                 220
Ser Asp Tyr Leu Leu Ala Leu Ser Thr Glu Asn Gly Leu Trp Val Ser
225                 230                 235                 240
Lys Asn Phe Gly Glu Lys Trp Glu Glu Ile His Lys Ala Val Cys Leu
                245                 250                 255
Ala Lys Trp Gly Pro Asn Asn Ile Ile Phe Phe Thr Thr His Val Asn
            260                 265                 270
Gly Ser Cys Lys Ala Asp Leu Gly Ala Leu Glu Leu Trp Arg Thr Ser
        275                 280                 285
Asp Leu Gly Lys Thr Phe Lys Thr Ile Gly Val Lys Ile Tyr Ser Phe
    290                 295                 300
Gly Leu Gly Gly Arg Phe Leu Phe Ala Ser Val Met Ala Asp Lys Asp
305                 310                 315                 320
Thr Thr Arg Arg Ile His Val Ser Thr Asp Gln Gly Asp Thr Trp Ser
                325                 330                 335
Met Ala Gln Leu Pro Ser Val Gly Gln Glu Gln Phe Tyr Ser Ile Leu
            340                 345                 350
Ala Ala Asn Asp Asp Met Val Phe Met His Val Asp Glu Pro Gly Asp
        355                 360                 365
Thr Gly Phe Gly Thr Ile Phe Thr Ser Asp Asp Arg Gly Ile Val Tyr
    370                 375                 380
Ser Lys Ser Leu Asp Arg His Leu Tyr Thr Thr Thr Gly Gly Glu Thr
385                 390                 395                 400
Asp Phe Thr Asn Val Thr Ser Leu Arg Gly Val Tyr Ile Thr Ser Thr
                405                 410                 415
Leu Ser Glu Asp Asn Ser Ile Gln Ser Met Ile Thr Phe Asp Gln Gly
            420                 425                 430
Gly Arg Trp Glu His Leu Gln Lys Pro Glu Asn Ser Lys Cys Asp Ala
        435                 440                 445
Thr Ala Lys Asn Lys Asn Glu Cys Ser Leu His Ile His Ala Ser Tyr
    450                 455                 460
Ser Ile Ser Gln Lys Leu Asn Val Pro Met Ala Pro Leu Ser Glu Pro
465                 470                 475                 480
Asn Ala Val Gly Ile Val Ile Ala His Gly Ser Val Gly Asp Ala Ile
                485                 490                 495
Ser Val Met Val Pro Asp Val Tyr Ile Ser Asp Asp Gly Gly Tyr Ser
            500                 505                 510
Trp Ala Lys Met Leu Glu Gly Pro His Tyr Tyr Thr Ile Leu Asp Ser
        515                 520                 525
Gly Gly Ile Ile Val Ala Ile Glu His Ser Asn Arg Pro Ile Asn Val
    530                 535                 540
Ile Lys Phe Ser Thr Asp Glu Gly Gln Cys Trp Gln Ser Tyr Val Phe
545                 550                 555                 560
Ser Gln Glu Pro Val Tyr Phe Thr Gly Leu Ala Ser Glu Pro Gly Ala
                565                 570                 575
Arg Ser Met Asn Ile Ser Ile Trp Gly Phe Thr Glu Ser Phe Leu Thr
            580                 585                 590
Arg Gln Trp Val Ser Tyr Thr Ile Asp Phe Lys Asp Ile Leu Glu Arg
        595                 600                 605
Asn Cys Glu Glu Asn Asp Tyr Thr Thr Trp Leu Ala His Ser Thr Asp
    610                 615                 620
Pro Gly Asp Tyr Lys Asp Gly Cys Ile Leu Gly Tyr Lys Glu Gln Phe
625                 630                 635                 640
Leu Arg Leu Arg Lys Ser Ser Val Cys Gln Asn Gly Arg Asp Tyr Val
```

645 650 655
Val Ala Lys Gln Pro Ser Ile Cys Pro Cys Ser Leu Glu Asp Phe Leu
660 665 670
Cys Asp Phe Gly Tyr Phe Arg Pro Glu Asn Ala Ser Glu Cys Val Glu
675 680 685
Gln Pro Glu Leu Lys Gly His Glu Leu Glu Phe Cys Leu Tyr Gly Lys
690 695 700
Glu Glu His Leu Thr Thr Asn Gly Tyr Arg Lys Ile Pro Gly Asp Arg
705 710 715 720
Cys Gln Gly Gly Met Asn Pro Ala Arg Glu Val Lys Asp Leu Lys Lys
725 730 735
Lys Cys Thr Ser Asn Phe Leu Asn Pro Lys Lys Gln Asn Ser Lys Ser
740 745 750
Ser Ser Val Pro Ile Ile Leu Ala Ile Val Gly Leu Met Leu Val Thr
755 760 765
Val Val Ala Gly Val Leu Ile Val Lys Lys Tyr Val Cys Gly Gly Arg
770 775 780
Phe Leu Val His Arg Tyr Ser Val Leu Gln Gln His Ala Glu Ala Asp
785 790 795 800
Gly Val Glu Ala Leu Asp Thr Ala Ser His Ala Lys Ser Gly Tyr His
805 810 815
Asp Asp Ser Asp Glu Asp Leu Leu Glu
820 825

<210> 4
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = S or T

<220>
<221> VARIANT
<222> 2
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 3
<223> Xaa = D or N

<220>
<221> VARIANT
<222> 4, 5, 6, 7
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 8
<223> Xaa = W, F or Y

<400> 4
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
1 5

<210> 5
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1, 2, 4, 6, 8, 11
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 3
<223> Xaa = S or T

<220>
<221> VARIANT
<222> 5
<223> Xaa = D or N

<220>
<221> VARIANT
<222> 9
<223> Xaa = T or S

<220>
<221> VARIANT
<222> 10
<223> Xaa = W, F or Y

<400> 5
Xaa Xaa Xaa Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa
 1   5   10

<210> 6
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 6
Arg Ala Ser Gln Ser Val Arg Ser Ser Tyr Leu Ala
 1   5   10

<210> 7
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 7
Arg Ala Ser Gln Ser Ile Ser Ser Tyr Leu Asn
 1   5   10

<210> 8
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 8

Arg Ala Ser Gln Ser Ile Ser Ser Trp Leu Ala
1 5 10

<210> 9
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 9
Arg Ala Ser Gln Ser Val Ser Ser Asn Leu Ala
1 5 10

<210> 10
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 10
Arg Ser Ser Gln Ser Leu Leu His Ser Asn Gly Tyr Asn Tyr Leu Asp
1 5 10 15

<210> 11
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 11
Arg Ala Ser Gln Ser Val Ser Ser Ser Phe Leu Ala
1 5 10

<210> 12
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 12
Arg Ala Ser Gln Gly Ile Ser Ser Trp Leu Ala
1 5 10

<210> 13
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 13
Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala
1 5 10

<210> 14
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 14
Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala
 1   5   10

<210> 15
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 15
Arg Ala Ser Gln Ser Ile Asn Ser Tyr Leu Asn
 1   5   10

<210> 16
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 16
Arg Ala Ser Gln Gly Ile Asp Ser Trp Leu Ala
 1   5   10

<210> 17
<400> 17
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<210> 18
<400> 18
000

<210> 19
<400> 19
000

<210> 20
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 20
Arg Ala Ser Gln Ser Val Ser Ser Ser Leu Ala
 1   5   10

<210> 21
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 21
Arg Ala Ser Gln Gly Ile Ser Arg Trp Leu Ala
 1   5   10

<210> 22
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 22
Arg Ala Ser Gln Asp Ile Ser Ser Trp Leu Ala
 1   5   10

<210> 23
<400> 23
000

<210> 24
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 24
Arg Ala Ser Gln Ser Ile Ser Ser Phe Leu Asn
 1   5   10

<210> 25
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 25
Lys Ser Ser Gln Ser Val Leu Tyr Ser Ser Asn Asn Lys Asn Tyr Leu
 1   5   10   15
Ala

<210> 26
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 26
Gly Ala Ser Ser Arg Ala Thr
 1   5

<210> 27
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 27
Ala Ala Ser Ser Leu Gln Ser
 1   5

<210> 28
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 28
Lys Ala Ser Ser Leu Glu Ser
 1   5

<210> 29
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 29
Gly Ala Ser Thr Arg Ala Thr
 1   5

<210> 30
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 30
Leu Gly Ser Asn Arg Ala Ser
 1   5

<210> 31
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 31

Gly Ala Ser Ser Leu Gln Ser
 1   5

<210> 32
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 32
Ala Ala Ser Asn Leu Gln Ser
 1   5

<210> 33
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 33
Asp Ala Ser Lys Arg Ala Thr
 1   5

<210> 34
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 34
Asp Ala Ser Asn Arg Ala Thr
 1   5

<210> 35
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 35
Ser Ala Ser Ser Leu Gln Ser
 1   5

<210> 36
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 36
Trp Ala Ser Thr Arg Glu Ser
 1   5

<210> 37
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 37
Ser Ala Ser Thr Arg Ala Thr
 1   5

<210> 38
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 38
Leu Gly Ser His Arg Ala Ser
 1   5

<210> 39
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 39
Asp Ser Ser Asn Arg Ala Thr
 1   5

<210> 40
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 40
Leu Ala Ser Asn Arg Ala Ser
 1   5

<210> 41
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 41
Gln Gln Ser Pro Trp Thr
 1   5

<210> 42
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 42
Gln Gln Ser Asp Val Ser Pro Ile Thr
 1   5

<210> 43
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 43
Gln Gln Tyr Lys Ser Tyr Pro Ile Thr
 1   5

<210> 44
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 44
Gln Gln Phe Arg Val Leu Pro Pro Thr
 1   5

<210> 45
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 45
Met Gln Val Ser Thr Glu Pro Pro Thr
 1   5

<210> 46
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 46
Gln Gln Val Ala Asn Tyr Pro Arg Thr
 1   5

<210> 47
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 47
Asp Gln Leu Gly Ser Ser Pro Arg Thr
 1   5

<210> 48
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 48
Gln Gln Ala Lys Val Trp Pro Tyr Thr
 1   5

<210> 49
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 49
Gln Gln Tyr Asn Ile Tyr Pro Leu Thr
 1   5

<210> 50
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
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<400> 50
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<400> 59

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<400> 68
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<400> 89
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Gln Gln Ser His Val Ser Pro Trp Thr
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Gln Gln Tyr Asn Ala Phe Pro Pro Thr
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<400> 124
Met Gln Ala Ile Asp Thr Pro Pro Thr

1 5

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Glu Gln Tyr Ala Ser Ser Pro Tyr Thr
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Tyr Thr Phe Thr Gly Tyr Tyr Met His
1 5

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<400> 129
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1 5

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Gly Thr Phe Ser Ser Tyr Ala Ile Ser
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Phe Thr Phe Asp Asp Tyr Ala Met His
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Phe Thr Phe Ser Ser Tyr Ala Met Ser
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<400> 137
Phe Thr Phe Ser Ser Ser Ala Met Ser
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<400> 138
Phe Thr Phe Ser Asn Tyr Ala Met Ser
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 1   5

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<400> 140
Phe Thr Phe Ser Ser Tyr Gly Met His
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<400> 142
Tyr Ser Ile Ser Ser Gly Tyr Tyr Trp Gly
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<400> 144
Gly Ser Ile Ser Ser Gly Gly Tyr Tyr Trp Ser
 1   5   10

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<400> 145
Gly Ser Ile Ser Ser Gly Thr Tyr Tyr Trp Ser
 1   5   10

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<400> 147
Gly Ser Ile Ser Ser Ser Asp Tyr Tyr Trp Gly
 1   5   10

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<400> 148
Gly Ser Ile Ser Ser Ser Ser Tyr Tyr Trp Gly
 1   5   10

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<400> 149
Tyr Ser Phe Thr Ser Tyr Trp Ile Gly
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<400> 150
Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
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Gly

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<220>
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<400> 151
Ser Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 152
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<400> 152
Ser Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu Gln
 1   5   10   15
Gly

<210> 153
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<400> 153
Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu Gln
 1   5   10   15
Gly

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<400> 155
Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

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<400> 156
Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

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<400> 157
Ser Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

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<400> 158
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 1   5   10   15
Gly

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Gly

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<400> 161
Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

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<400> 162
Ser Ile Ser Ser Ser Ser Asn Tyr Ile Tyr Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

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<400> 163
Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

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<400> 164
Ala Ile Ser Ala Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

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<400> 165
Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys
 1   5   10   15
Gly

<210> 166
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Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val Lys
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Gly

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<400> 169
Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
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<400> 170
Thr Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

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<400> 171
Ser Ile Tyr His Ser Gly Asn Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 172
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<400> 172
Tyr Ile Tyr Tyr Ser Gly Ser Thr Val Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

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

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<400> 174
Asn Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

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<400> 175

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

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<400> 177
Ser Ile Ser Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

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<400> 178
Ile Ile Tyr Pro Gly Asp Ser Asp Thr Thr Tyr Ser Pro Ser Phe Gln
 1   5   10   15
Gly

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<220>
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<400> 179
Ala Arg Ser Pro Gly Gly Ala Thr Asp Gly Leu Val Tyr Tyr Tyr Tyr
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Tyr Gly Met Asp Val
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<400> 180
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
 1   5   10   15
Val

<210> 181

<211> 15
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<220>
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<400> 181
Ala Arg Gly Gly Pro Gln Leu Arg Val Ala Glu Tyr Phe Gln His
 1   5   10   15

<210> 182
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<400> 182
Ala Arg Arg His Arg Ser Ser Thr Tyr Gly Met Asp Val
 1   5   10

<210> 183
<211> 19
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<400> 183
Ala Arg Gly Val Gly Ser Thr Val Thr Leu Ala Tyr Tyr Tyr Tyr Gly
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Met Asp Val

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<400> 184
Ala Arg Asp Pro Ser Gly Gly Thr Thr Leu His Tyr Tyr Tyr Gly Met
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Asp Val

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<400> 185
Ala Arg Gln Gly Gly His Asp Ser Pro Thr Leu Tyr Tyr Tyr Tyr Tyr
 1   5   10   15
Gly Met Asp Val
            20

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<400> 186
Ala Arg Asp Pro Gly Gly Tyr Gly Pro Thr Leu Tyr Tyr Tyr Tyr Gly
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Met Asp Val

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<210> 188
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<400> 188
Ala Arg Asp Leu Pro Lys Tyr Lys Trp Gly Trp Phe Asp Pro
 1   5   10

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<400> 190
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Tyr Tyr Gly Met Asp Val
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<400> 191
Ala Arg Ser Pro Tyr Ser Gly Thr Arg Asp Phe Asp Leu
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<400> 193
Ala Arg Asp Lys His Gly Arg Arg Gly Tyr Tyr Tyr Tyr Met Asp Val
 1   5   10   15

<210> 194
<211> 19
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<400> 194
Ala Arg Glu Ser Arg Ile Pro Gly Ser Gly Tyr Tyr Tyr Tyr Tyr Gly
 1   5   10   15
Met Asp Val

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<400> 195
Ala Arg Glu Gly Arg Met Ser Gly Trp Tyr Tyr Ala Tyr Gly Met Asp
 1   5   10   15
Val

<210> 196
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<400> 196
Ala Arg Glu Arg Arg Tyr Asp Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
 1   5   10   15
Val

<210> 197
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 197
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
 1   5   10   15
Val

<210> 198
<400> 198
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<210> 199
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 199
Ala Lys Pro Leu Tyr Arg Gly Gly Pro Phe Asp Ile
 1   5   10

<210> 200
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 200
Ala Lys Gly Val Gly Gln Val Pro Ala Ser Val Ala Phe Asp Ile
 1   5   10   15

<210> 201
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 201
Ala Arg Asp Arg Leu Gly Arg Gly Tyr Lys Trp Asn Trp Phe Asp Pro
 1   5   10   15

<210> 202
<400> 202
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<210> 203
<211> 13
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<213> Artificial Sequence

<220>
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<400> 203

Ala Arg Gly Gly Leu Asp Arg Trp Gly Ser Phe Asp Ile
 1   5   10

<210> 204
<211> 8
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<220>
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<400> 204
Ala Arg Gly Asp Gly Met Asp Val
 1   5

<210> 205
<400> 205
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<210> 206
<211> 13
<212> PRT
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<220>
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<400> 206
Ala Lys Arg Gly Tyr Pro Gly Tyr Pro Ala Phe Asp Ile
 1   5   10

<210> 207
<400> 207
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<210> 208
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<220>
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<400> 208
Ala Lys Thr Gly Gly Thr Tyr Gly Met Asp Val
 1   5   10

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<210> 213
<211> 12
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<220>
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<400> 213
Ala Lys Pro Leu Ser Ser Thr Gly Gly Gly Asn Ile
 1   5   10

<210> 214
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 214
Ala Arg Glu Val Met Ala Arg Ala Arg Thr Tyr Gly Met Asp Val
 1   5   10   15

<210> 215
<400> 215
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<210> 216
<211> 12
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<220>
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<400> 216
Ala Lys Leu Tyr Gln Gly Thr Pro Asp Phe Asp Leu
 1   5   10

<210> 217
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 217
Ala Lys Val Gly Gly Met Tyr Asp Gly Gly Val Tyr Tyr Tyr Gly Met
 1   5   10   15
Asp Val

<210> 218
<211> 14
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 218
Ala Lys Thr Pro Ser Ser Ile Tyr Ala Ala Gly Met Asp Val
 1   5   10

<210> 219
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 219
Ala Arg Val Arg Gly Tyr Gly Gly Ser Asn Tyr Phe Asp Tyr
 1   5   10

<210> 220
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<210> 221
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<210> 222
<211> 20
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<220>
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<400> 222
Ala Arg Glu Ser Gly Asp Arg Ala Thr Leu Val Tyr Tyr Tyr Tyr Tyr
 1   5   10   15
Gly Met Asp Val
            20

<210> 223
<211> 19
<212> PRT
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<220>
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<400> 223
Ala Arg Asp Arg Gly Gly Tyr Ser Ser Leu Leu Pro Tyr Tyr Tyr Tyr
 1   5   10   15
Met Asp Val

<210> 224
<211> 11
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<220>
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<400> 224
Ala Arg Asp Ala Tyr Glu Gly Arg Val Asp Val
 1   5   10

<210> 225
<211> 22
<212> PRT
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<220>
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<400> 225
Ala Lys Gly Leu Glu Tyr Tyr Asp Ser Ser Arg Leu Tyr Tyr Pro Tyr
 1   5   10   15
Tyr Tyr Tyr Met Asp Val
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<210> 227
<400> 227
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<210> 228
<400> 228
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<210> 229
<211> 15
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<220>
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<400> 229
Ala Arg Gly Arg Pro Glu Leu Gly Trp Asp Lys Tyr Phe Gln His
 1   5   10   15

<210> 230
<400> 230
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<210> 231
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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<400> 231
Ala Arg Gly Pro Leu Lys Phe Tyr Tyr Gly Ser Gly Ser Tyr Gly Phe
 1   5   10   15
Phe Asp Tyr

<210> 232
<211> 14
<212> PRT
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<220>
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<400> 232
Ala Arg Gly Pro Pro Glu Leu Gly Lys Met Tyr Phe Gln His
 1   5   10

<210> 233
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<212> PRT
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<220>
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<400> 233
Ala Arg Gln Gly Ser Ile Lys Gln Gly Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 234
<211> 20
<212> PRT
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<220>
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<400> 234
Ala Arg Gly Ser Pro Arg Phe Tyr Tyr Gly Ser Gly Ser Tyr Leu Asp
 1   5   10   15
Leu Phe Asp Ile
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<400> 235
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<210> 236
<211> 13
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<220>
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<400> 236
Ala Arg Ala Glu His Arg Gly Pro Arg Tyr Phe Asp Leu
 1   5   10

<210> 237
<211> 13
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<220>

<223> Synthetic Construct

<400> 237
Ala Arg Glu Gly Gln Leu Pro Thr Gly Thr Phe Asp Tyr
 1   5   10

<210> 238
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 238
Ala Arg Asp Val Gly Arg Thr Gly Pro His Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 239
<211> 16
<212> PRT
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<220>
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<400> 239
Ala Arg Leu His Ser Asp Tyr Ser Val Leu Tyr Tyr Gly Met Asp Val
 1   5   10   15

<210> 240
<400> 240
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<210> 241
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<220>
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<400> 241
Ala Arg Asp Arg Gly Gly Thr His Phe Gly Ala Asp His Tyr Tyr Tyr
 1   5   10   15
Gly Met Asp Val
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<210> 242
<400> 242
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<210> 243
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<213> Artificial Sequence

<220>
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<400> 243
Ala Arg Leu Pro Gly Tyr Pro Leu Gly Leu Phe Asp Ile

1 5 10

<210> 244
<211> 16
<212> PRT
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<220>
<223> Synthetic Construct

<400> 244
Ala Arg Asp Arg Gly Arg Thr Glu Ser Tyr Tyr Tyr Gly Met Asp Val
1 5 10 15

<210> 245
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<212> PRT
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<220>
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<400> 245
Ala Arg Gly Val Gly Arg Tyr Arg Val Ala Asp Tyr
1 5 10

<210> 246
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 246
Ala Arg Asp Arg Gly Met Gly Pro Lys Leu Tyr Tyr Tyr Tyr Gly Met
1 5 10 15
Asp Val

<210> 247
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
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<400> 247
Ala Arg Gly Val Gly Ile Gln Gln Gln Leu Val Leu Gly Phe Asp Pro
1 5 10 15

<210> 248
<400> 248
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<210> 249
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<220>

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<400> 249
Ala Arg Ser Leu Ala Met Ser Gly Ala Tyr Phe Asp Leu
 1   5   10

<210> 250
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<210> 251
<400> 251
000

<210> 252
<211> 13
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<220>
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<400> 252
Ala Arg Glu Arg Trp Asp Leu Gly His Gly Met Asp Val
 1   5   10

<210> 253
<211> 17
<212> PRT
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<220>
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<400> 253
Ala Arg Gly Val Gly Ser Gly Tyr Ser Tyr Gly Tyr Arg Tyr Phe Asp
 1   5   10   15
Tyr

<210> 254
<211> 15
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<213> Artificial Sequence

<220>
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<400> 254
Ala Arg Gly Ser Pro Thr Trp Leu Arg Asp Tyr Tyr Met Asp Val
 1   5   10   15

<210> 255
<211> 12
<212> PRT
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<220>
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<400> 255
Ala Arg Gly Gly Thr Thr Trp Leu Val Ala Asp Val

1 5 10

<210> 256
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 256
Ala Arg Gly Arg Gly Arg Tyr Ser Tyr Gly Tyr His Lys Ala Ala Phe
1 5 10 15
Asp Ile

<210> 257
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 257
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys
20

<210> 258
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 258
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys
20

<210> 259
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 259
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys
20

<210> 260
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 260
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys
            20

<210> 261
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<220>
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<400> 261
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys
            20

<210> 262
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<212> PRT
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<220>
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<400> 262
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys
            20

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<213> Artificial Sequence

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<400> 263
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys
            20

<210> 264
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<213> Artificial Sequence

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<400> 264
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys
            20

<210> 265
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<212> PRT
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<220>
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<400> 265
Glu Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys
            20

<210> 266
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<220>
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<400> 266
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys
            20

<210> 267
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<212> PRT
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<220>
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<400> 267
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys
            20

<210> 268
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<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 268
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys
            20

<210> 269
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<220>

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<400> 269
Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
 1   5   10   15

<210> 270
<211> 15
<212> PRT
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<220>
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<400> 270
Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
 1   5   10   15

<210> 271
<211> 15
<212> PRT
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<220>
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<400> 271
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr
 1   5   10   15

<210> 272
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 272
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Phe
 1   5   10   15

<210> 273
<211> 15
<212> PRT
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<220>
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<400> 273
Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr
 1   5   10   15

<210> 274
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 274

Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Ser
1 5 10 15

<210> 275
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 275
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Val Leu Ile Tyr
1 5 10 15

<210> 276
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
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<400> 276
Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15
Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys
20 25 30

<210> 277
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 277
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15
Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys
20 25 30

<210> 278
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 278
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
1 5 10 15
Leu Thr Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys
20 25 30

<210> 279
<211> 32
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 279
Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr
 1   5   10   15
Leu Thr Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys
            20   25   30

<210> 280
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
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<400> 280
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys
            20   25   30

<210> 281
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
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<400> 281
Gly Ile Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Thr Ile Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys
            20   25   30

<210> 282
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 282
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys
            20   25   30

<210> 283
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 283
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 1   5   10

<210> 284

<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 284
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly
            20   25

<210> 285
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 285
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly
            20   25

<210> 286
<400> 286
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<210> 287
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
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<400> 287
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 288
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 288
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 289
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 289
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 290
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<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 290
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 291
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<212> PRT
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<220>
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<400> 291
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly
            20   25

<210> 292
<211> 26
<212> PRT
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<220>
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<400> 292
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly
            20   25

<210> 293
<400> 293
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<210> 294
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
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<400> 294
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly
            20   25

<210> 295
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 295
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly
            20   25

<210> 296
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 296
Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
 1   5   10

<210> 297
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 297
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala
 1   5   10

<210> 298
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 298
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser
 1   5   10

<210> 299
<211> 14
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 299
Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile Gly
 1   5   10

<210> 300
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 300
Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu Trp Ile Gly
 1   5   10

<210> 301
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 301
Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met Gly
 1   5   10

<210> 302
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 302
Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr Met Glu
 1   5   10   15
Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
            20   25   30

<210> 303
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 303
Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr Met Glu
 1   5   10   15
Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
            20   25   30

<210> 304
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 304
Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Glu
 1   5   10   15
Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
            20   25   30

<210> 305
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<400> 305
Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr Met Glu
 1   5   10   15
Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
            20   25   30

<210> 306
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<400> 306
Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln
 1   5   10   15
Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            20   25   30

<210> 307
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 307
Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln
 1   5   10   15
Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
            20   25   30

<210> 308
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<400> 308
Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu Gln
 1   5   10   15
Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
            20   25   30

<210> 309
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<400> 309
Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser Leu Lys
 1   5   10   15
Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
            20   25   30

<210> 310
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<400> 310
Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr Leu Gln
 1   5   10   15
Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
            20   25   30

<210> 311
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 311
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 1   5   10

<210> 312
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 312
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 1   5   10

<210> 313
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 313
Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser

1 5 10

<210> 314
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 314
Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 315
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 315
Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser
1 5 10

<210> 316
<400> 316
000

<210> 317
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 317
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Arg Ser Ser
20 25 30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser Pro Trp Thr Phe
85 90 95
Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 318
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 318

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
            20                  25                  30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Ser Pro Gly Gly Ala Thr Asp Gly Leu Val Tyr Tyr Tyr Tyr
            100                 105                 110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120                 125


<210> 319
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 319
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Asp Val Ser Pro Ile
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 320
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 320
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
            20                  25                  30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 321
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 321
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Lys Ser Tyr Pro Ile
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 322
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 322
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Trp Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Pro Gln Leu Arg Val Ala Glu Tyr Phe Gln His Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 323
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 323
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile

```
        35                  40                  45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Arg Val Leu Pro Pro
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 324
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 324
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1               5                  10                  15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20                  25                  30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35                  40                  45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Val
                85                  90                  95
Ser Thr Glu Pro Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 325
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 325
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
            20                  25                  30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Ser Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Arg His Arg Ser Ser Thr Tyr Gly Met Asp Val Trp Gly Gln
            100                 105                 110
Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 326
<211> 107
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Synthetic Construct

<400> 326
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Val Ala Asn Tyr Pro Arg
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 327
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 327
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ser Ile Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Val Gly Ser Thr Val Thr Leu Ala Tyr Tyr Tyr Tyr Gly
            100   105   110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120   125

<210> 328
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 328
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Arg Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Asp Gln Leu Gly Ser Ser Pro
                85   90   95

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

<210> 329
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 329
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30
Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ser Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
50 55 60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Gly Thr Thr Leu His Tyr Tyr Tyr Gly Met
100 105 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 330
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 330
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
20 25 30
Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Lys Val Trp Pro
85 90 95
Tyr Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 331
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 331
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr

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


<210> 332
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 332
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1                  5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35                  40                  45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Ile Tyr Pro Leu
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 333
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 333
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1                  5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20                  25                  30
Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Pro Gly Gly Tyr Gly Pro Thr Leu Tyr Tyr Tyr Tyr Gly
            100                 105                 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120                 125


<210> 334
```

<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 334
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ala Asp Trp Pro Pro
                85   90   95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 335
<400> 335
000

<210> 336
<400> 336
000

<210> 337
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 337
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Asn His Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 338
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 338

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20                  25                  30
Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Trp Ile Ser Ala Tyr Asn Gly Asn Thr Asn Tyr Ala Gln Lys Leu
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Thr Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Arg Ser Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Leu Pro Lys Tyr Lys Trp Gly Trp Phe Asp Pro Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 339
<400> 339
000

<210> 340
<400> 340
000

<210> 341
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 341

```
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Gly Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Val Gly Pro Phe
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 342
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 342

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20                  25                  30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
```

Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 343
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 343
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Arg Leu Gly Pro Trp
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 344
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 344
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Ala Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gly Asn Ser Tyr Pro Ile
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 345
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 345
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Ser Pro Tyr Ser Gly Thr Arg Asp Phe Asp Leu Trp Gly Arg
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 346
<400> 346
000

<210> 347
<400> 347
000

<210> 348
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 348
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Gly Ala Asn Ala Pro Pro
                85   90   95
Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 349
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 349
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser

```
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20                  25                  30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Ser Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Lys His Gly Arg Arg Gly Tyr Tyr Tyr Tyr Met Asp Val
            100                 105                 110
Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 350
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 350
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ser Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Asp Gly Lys Pro Pro
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 351
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 351
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20                  25                  30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Glu Ser Arg Ile Pro Gly Ser Gly Tyr Tyr Tyr Tyr Tyr Gly
            100                 105                 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120                 125
```

<210> 352
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 352
Glu Ile Val Met Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Gly Phe Pro
                85   90   95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 353
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 353
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Glu Gly Arg Met Ser Gly Trp Tyr Tyr Ala Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 354
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 354
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
            20   25   30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Lys Ala Ser Leu Pro Phe
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 355
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 355
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ser Ile Ile Pro Ile Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Glu Arg Arg Tyr Asp Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 356
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 356
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asp Gly His Ile Thr
                85   90   95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 357
<211> 124
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 357
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Ile Phe Gly Thr Ala Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 358
<400> 358
000

<210> 359
<400> 359
000

<210> 360
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 360
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Val Ala Val Ser Pro
                85   90   95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 361
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 361
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Gly Asp Tyr

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

<210> 362
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 362

```
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1                  5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20                  25                  30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asp Ser Ala Pro
                85                  90                  95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 363
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 363

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Arg
 1                  5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Asp Tyr
            20                  25                  30
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Gly Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
                85                  90                  95
Ala Lys Gly Val Gly Gln Val Pro Ala Ser Val Ala Phe Asp Ile Trp
            100                 105                 110
Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115                 120
```

<210> 364

<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 364
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Asp Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gly Asn Ser Leu Pro Pro
                85   90   95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 365
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 365
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ser Ile Ser Ser Ser Ser Ser Tyr Ile Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Arg Leu Gly Arg Gly Tyr Lys Trp Asn Trp Phe Asp Pro
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 366
<400> 366
000

<210> 367
<400> 367
000

<210> 368
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 368
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Arg
                85   90   95
Leu Gln Ser Pro Leu Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 369
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 369
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ser Ile Ser Ser Ser Ser Asn Tyr Ile Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Leu Asp Arg Trp Gly Ser Phe Asp Ile Trp Gly Gln
            100   105   110
Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 370
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 370
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Arg
                85   90   95

Ile Gln Gly Pro Pro Arg Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
100 105 110
Lys

<210> 371
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 371
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
85 90 95
Leu Gly Pro Pro Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 372
<211> 115
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 372
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Gly Asp Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr
100 105 110
Val Ser Ser
115

<210> 373
<400> 373
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<210> 374
<400> 374
000

<210> 375
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 375
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Phe Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Gly
                85   90   95
Ile Glu Thr Pro Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 376
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 376
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Ala Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Arg Gly Tyr Pro Gly Tyr Pro Ala Phe Asp Ile Trp Gly Gln
            100   105   110
Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 377
<400> 377
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<210> 378
<400> 378
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<210> 379
<211> 108
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 379
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Pro Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 380
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 380
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Thr Gly Gly Thr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr
            100   105   110
Thr Val Thr Val Ser Ser
        115

<210> 381
<400> 381
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<210> 382
<400> 382
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<210> 383
<400> 383
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<210> 384
<400> 384
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<210> 385
<400> 385

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<210> 386
<400> 386
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<210> 387
<400> 387
000

<210> 388
<400> 388
000

<210> 389
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 389
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Phe Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Ile Gln Gly Pro Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 390
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 390
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Ser
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Pro Leu Ser Ser Thr Gly Gly Gly Asn Ile Trp Gly Gln Gly
            100   105   110
Thr Met Val Thr Val Ser Ser

115

<210> 391
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 391
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Ala Leu Pro Phe
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 392
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 392
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Glu Val Met Ala Arg Ala Arg Thr Tyr Gly Met Asp Val Trp
100 105 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 393
<400> 393
000

<210> 394
<400> 394
000

<210> 395
<211> 108
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 395
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Leu Arg Ser Pro
                85   90   95
Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 396
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 396
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Leu Tyr Gln Gly Thr Pro Asp Phe Asp Leu Trp Gly Arg Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 397
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 397
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Leu Gly Ser His Pro
85 90 95
Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 398
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 398
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Lys Val Gly Gly Met Tyr Asp Gly Gly Val Tyr Tyr Tyr Gly Met
100 105 110
Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 399
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 399
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Arg Ser Ser
20 25 30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Leu Asp Ser Ser Pro
85 90 95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 400
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 400
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

```
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
            20                  25                  30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Lys Thr Pro Ser Ser Ile Tyr Ala Ala Gly Met Asp Val Trp Gly
            100                 105                 110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 401
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 401
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20                  25                  30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65                  70                  75                  80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser Gly Ser Val Pro
                85                  90                  95
Pro Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 402
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 402
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Val Arg Gly Tyr Gly Gly Ser Asn Tyr Phe Asp Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
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<210> 403
<400> 403
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<210> 404
<400> 404
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<210> 405
<400> 405
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<210> 406
<400> 406
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<210> 407
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 407
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Ser Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Ser Trp Pro Ile
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 408
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 408
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Glu Ser Gly Asp Arg Ala Thr Leu Val Tyr Tyr Tyr Tyr Tyr

100 105 110
Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 409
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 409
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Arg Ser Ser
20 25 30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Gly Asp Tyr Pro
85 90 95
Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 410
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 410
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Arg Gly Gly Tyr Ser Ser Leu Leu Pro Tyr Tyr Tyr Tyr
100 105 110
Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120 125

<210> 411
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 411
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15

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


<210> 412
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 412
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Ala Tyr Glu Gly Arg Val Asp Val Trp Gly Gln Gly Thr
            100                 105                 110
Met Val Thr Val Ser Ser
        115


<210> 413
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 413
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35                  40                  45
Tyr Asp Ala Ser Lys Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Tyr Pro Ile
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 414
<211> 129
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<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 414
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20   25   30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Val Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Lys Gly Leu Glu Tyr Tyr Asp Ser Ser Arg Leu Tyr Tyr Pro Tyr
            100   105   110
Tyr Tyr Tyr Met Asp Val Trp Gly Lys Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 415
<400> 415
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<210> 416
<400> 416
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<210> 417
<400> 417
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<210> 418
<400> 418
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<210> 419
<400> 419
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<210> 420
<400> 420
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<210> 421
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 421
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1   5   10   15

```
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Arg Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Asn Ala Leu Pro Thr
                85                  90                  95
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 422
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 422
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1                  5                  10                  15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
            20                  25                  30
Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45
Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
    50                  55                  60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65                  70                  75                  80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Arg Pro Glu Leu Gly Trp Asp Lys Tyr Phe Gln His Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 423
<400> 423
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<210> 424
<400> 424
000


<210> 425
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 425
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1                  5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20                  25                  30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35                  40                  45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50                  55                  60
```

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Glu Gln Tyr Gly Gly Ser Pro
85 90 95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 426
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 426
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
20 25 30
Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
35 40 45
Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
50 55 60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65 70 75 80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Gly Pro Leu Lys Phe Tyr Tyr Gly Ser Gly Ser Tyr Gly Phe
100 105 110
Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 427
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 427
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Asp Arg Lys Gly Pro Leu
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 428
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 428
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
            20   25   30
Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
        35   40   45
Ile Gly Ser Ile Tyr His Ser Gly Asn Thr Tyr Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Pro Pro Glu Leu Gly Lys Met Tyr Phe Gln His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 429
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 429
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln His Gly Arg Leu Pro
                85   90   95
Pro Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 430
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 430
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Gln
                85   90   95
Gln Glu Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 431
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 431
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
            20   25   30
Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
        35   40   45
Ile Gly Thr Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Gly Ser Ile Lys Gln Gly Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 432
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 432
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Glu Tyr Leu Asn Tyr Pro Ile
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 433
<211> 127
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 433
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
            20   25   30
Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
        35   40   45

Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Ser Pro Arg Phe Tyr Tyr Gly Ser Gly Ser Tyr Leu Asp
            100   105   110
Leu Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120   125

<210> 434
<400> 434
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<210> 435
<400> 435
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<210> 436
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 436
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Leu Gly Ile Ala Pro
                85   90   95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 437
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 437
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly
            20   25   30
Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
        35   40   45
Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Ala Glu His Arg Gly Pro Arg Tyr Phe Asp Leu Trp Gly Arg
100 105 110
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 438
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 438
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Asn Ser Tyr
20 25 30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Leu Asp Ser Thr Pro Ile
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 439
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 439
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
85 90 95
Arg Asp Gly Pro Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 440
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 440
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Gly

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


<210> 441
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 441
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Ser Ser Trp
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Glu Gln Ala Asn Ser Leu Pro Pro
                85                  90                  95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 442
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 442
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
            20                  25                  30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
        35                  40                  45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Val Tyr Asn Pro Ser
    50                  55                  60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65                  70                  75                  80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85                  90                  95
Cys Ala Arg Asp Val Gly Arg Thr Gly Pro His Tyr Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 443
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<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 443
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser His Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Arg
                85   90   95
Leu Glu Ala Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 444
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 444
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
            20   25   30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Leu His Ser Asp Tyr Ser Val Leu Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 445
<400> 445
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<210> 446
<400> 446
000

<210> 447
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 447
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Ala Asp Trp Pro Ile
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 448
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 448
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
            20   25   30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Asp Arg Gly Gly Thr His Phe Gly Ala Asp His Tyr Tyr
            100   105   110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120   125

<210> 449
<400> 449
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<210> 450
<400> 450
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<210> 451
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 451
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
50 55 60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65 70 75 80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Ala Ser Ser Pro
85 90 95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 452
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 452
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
20 25 30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35 40 45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Val Tyr Asn Pro Ser
50 55 60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95
Cys Ala Arg Leu Pro Gly Tyr Pro Leu Gly Leu Phe Asp Ile Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 453
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 453
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Val Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Ser Ser Trp
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Ala Ala Ser Asn Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ala Pro Ser Val Pro Pro
85 90 95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 454
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 454
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
            20   25   30
Thr Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Asp Arg Gly Arg Thr Glu Ser Tyr Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 455
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 455
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Ser Val Tyr Pro Pro
                85   90   95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 456
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 456
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
            20   25   30
Thr Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr

85 90 95
Cys Ala Arg Gly Val Gly Arg Tyr Arg Val Ala Asp Tyr Trp Gly Gln
100 105 110
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 457
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 457
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Asp Ser Ser Asn Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Glu Thr Asn Met Pro Pro
85 90 95
Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 458
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 458
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Ser Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Ala Leu Pro Arg
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 459
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 459
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15

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


<210> 460
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 460
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Phe
            20                  25                  30
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45
Ser Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Arg Glu Pro Ile
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105


<210> 461
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 461
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
            20                  25                  30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
        35                  40                  45
Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50                  55                  60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65                  70                  75                  80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85                  90                  95
Cys Ala Arg Gly Val Gly Ile Gln Gln Gln Leu Val Leu Gly Phe Asp
            100                 105                 110
Pro Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 462
<400> 462
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<210> 463
<400> 463
000

<210> 464
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 464
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
            20   25   30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Ala Asn Ala Pro Ile Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 465
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 465
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
            20   25   30
Asp Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Ser Leu Ala Met Ser Gly Ala Tyr Phe Asp Leu Trp Gly
            100   105   110
Arg Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 466
<400> 466
000

<210> 467
<400> 467
000

<210> 468
<400> 468
000

<210> 469
<400> 469
000

<210> 470
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 470
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Val Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85   90   95
Leu Asp Val Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 471
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 471
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
            20   25   30
Ser Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Glu Arg Trp Asp Leu Gly His Gly Met Asp Val Trp Gly
            100   105   110
Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 472
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 472
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ser His Val Ser Pro
                85   90   95
Trp Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 473
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 473
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
            20   25   30
Asp Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Gly Val Gly Ser Gly Tyr Ser Tyr Gly Tyr Arg Tyr Phe
            100   105   110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 474
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 474
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly

```
    50                  55                  60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65                  70                  75                  80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Asn Ala Phe Pro Pro
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 475
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 475

```
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
            20                  25                  30
Ser Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35                  40                  45
Trp Ile Gly Ser Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50                  55                  60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65                  70                  75                  80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85                  90                  95
Cys Ala Arg Gly Ser Pro Thr Trp Leu Arg Asp Tyr Tyr Met Asp Val
            100                 105                 110
Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 476
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 476

```
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1               5                  10                  15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
            20                  25                  30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35                  40                  45
Pro Gln Leu Leu Ile Tyr Leu Ala Ser Asn Arg Ala Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
                85                  90                  95
Ile Asp Thr Pro Pro Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
```

<210> 477
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 477
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
            20   25   30
Ser Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Ser Ile Ser Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Gly Gly Thr Thr Trp Leu Val Ala Asp Val Trp Gly Gln
            100   105   110
Gly Thr Met Val Thr Val Ser Ser
        115   120

<210> 478
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 478
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
            20   25   30
Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
        35   40   45
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
    50   55   60
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
65   70   75   80
Pro Glu Asp Phe Ala Val Tyr Tyr Cys Glu Gln Tyr Ala Ser Ser Pro
                85   90   95
Tyr Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 479
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 479
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser Phe Thr Ser Tyr
            20   25   30
Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Thr Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg Gly Arg Gly Arg Tyr Ser Tyr Gly Tyr His Lys Ala Ala Phe
            100   105   110

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
        115   120   125

<210> 480
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 4
<223> Xaa = T, G, V, P, L, F, A, or R

<220>
<221> VARIANT
<222> 5
<223> Xaa = G, A, or S

<220>
<221> VARIANT
<222> 7
<223> Xaa = Y, M, or L

<220>
<221> VARIANT
<222> 9
<223> Xaa = H or W

<400> 480
Tyr Thr Phe Xaa Xaa Tyr Xaa Met Xaa
 1   5

<210> 481
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = W, I, or G

<220>
<221> VARIANT
<222> 2
<223> Xaa = I, V, or T

<220>
<221> VARIANT
<222> 3
<223> Xaa = N, G, or L

<220>
<221> VARIANT
<222> 5
<223> Xaa = N, S, V, or M

<220>
<221> VARIANT
<222> 6

<223> Xaa = S, G, W, or Q

<220>
<221> VARIANT
<222> 8
<223> Xaa = G, F, A, Y, S, N, or R

<220>
<221> VARIANT
<222> 10
<223> Xaa = N, R, S, or M

<400> 481
Xaa Xaa Xaa Pro Xaa Xaa Gly Xaa Thr Xaa Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 482
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 482
Tyr Thr Phe Gly Ala Tyr Tyr Met His
 1   5

<210> 483
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 483
Tyr Thr Phe Val Ala Tyr Tyr Met His
 1   5

<210> 484
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 484
Tyr Thr Phe Thr Ser Tyr Met Met His
 1   5

<210> 485
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 485
Tyr Thr Phe Pro Gly Tyr Leu Met His

1 5

<210> 486
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 486
Tyr Thr Phe Leu Ala Tyr Tyr Met His
1 5

<210> 487
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 487
Tyr Thr Phe Phe Ser Tyr Tyr Met His
1 5

<210> 488
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 488
Tyr Thr Phe Thr Ala Tyr Leu Met His
1 5

<210> 489
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 489
Tyr Thr Phe Ala Ser Tyr Tyr Met Trp
1 5

<210> 490
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 490
Tyr Thr Phe Thr Ala Tyr Tyr Met His
1 5

<210> 491
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 491
Tyr Thr Phe Gly Gly Tyr Leu Met His
 1   5

<210> 492
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 492
Tyr Thr Phe Arg Ala Tyr Tyr Met His
 1   5

<210> 493
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 493
Trp Ile Asn Pro Asn Ser Gly Phe Thr Arg Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 494
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 494
Trp Ile Asn Pro Asn Ser Gly Ala Thr Arg Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 495
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 495
Trp Val Asn Pro Asn Ser Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 496
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 496
Ile Ile Gly Pro Ser Gly Gly Tyr Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 497
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 497
Trp Ile Asn Pro Val Ser Gly Ser Thr Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 498
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 498
Trp Val Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 499
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 499
Trp Ile Asn Pro Asn Ser Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 500
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 500
Trp Ile Asn Pro Ser Gly Gly Asn Thr Arg Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 501
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 501
Trp Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 502
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 502
Gly Ile Leu Pro Ser Gly Gly Arg Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 503
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 503
Trp Ile Asn Pro Ser Trp Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 504
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 504
Trp Val Asn Pro Asn Ser Gly Gly Thr Met Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 505
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 505
Trp Thr Asn Pro Asn Ser Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 506
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 506
Trp Ile Asn Pro Met Ser Gly Gly Thr Arg Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 507
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 507
Trp Ile Asn Pro Ser Gln Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 508
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 6
<223> Xaa = V or I

<220>
<221> VARIANT
<222> 7
<223> Xaa = S or G

<400> 508
Arg Ala Ser Gln Ser Xaa Xaa Ser Asn Leu Ala
 1   5   10

<210> 509
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = F or L

<220>
<221> VARIANT
<222> 4
<223> Xaa = T or A

<220>
<221> VARIANT
<222> 5
<223> Xaa = S or K

<220>
<221> VARIANT
<222> 6
<223> Xaa = Y, T, R, L, T, G, Q, or H

<220>
<221> VARIANT
<222> 7
<223> Xaa = Y, T, or L

<220>
<221> VARIANT
<222> 8
<223> Xaa = M or I

<400> 509
Tyr Thr Xaa Xaa Xaa Xaa Xaa Xaa Ser
 1   5

<210> 510
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = I or V

<220>
<221> VARIANT
<222> 5
<223> Xaa = S, W, Y, V, F, L, or I

<220>
<221> VARIANT
<222> 8
<223> Xaa = S or T

<220>
<221> VARIANT
<222> 9
<223> Xaa = T or A

<220>
<221> VARIANT
<222> 13
<223> Xaa = Q or R

<220>
<221> VARIANT
<222> 14
<223> Xaa = K or R

<220>
<221> VARIANT
<222> 16
<223> Xaa = Q or R

<400> 510
Xaa Ile Asn Pro Xaa Gly Gly Xaa Xaa Ser Tyr Ala Xaa Xaa Phe Xaa
 1   5   10   15
Gly

<210> 511
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = A, V, or T

<220>
<221> VARIANT
<222> 5
<223> Xaa = S, F, or G

<220>
<221> VARIANT
<222> 7
<223> Xaa = I or A

<220>
<221> VARIANT
<222> 8
<223> Xaa = A or G

<220>
<221> VARIANT
<222> 9
<223> Xaa = A, L, or V

<220>
<221> VARIANT
<222> 10
<223> Xaa = A, L, or P

<220>
<221> VARIANT
<222> 11
<223> Xaa = G, F, or Y

<220>
<221> VARIANT
<222> 13
<223> Xaa = A, G, or F

<220>
<221> VARIANT
<222> 14
<223> Xaa = S, G, A

<220>
<221> VARIANT
<222> 16
<223> Xaa = Y, G, P, H, or S

<220>
<221> VARIANT
<222> 17
<223> Xaa = Y or N

<220>
<221> VARIANT
<222> 18
<223> Xaa = Y, L, Q, or R

<220>
<221> VARIANT
<222> 20
<223> Xaa = M or L

<400> 511
Xaa Arg Asp Pro Xaa Gly Xaa Xaa Xaa Xaa Xaa Pro Xaa Xaa Arg Xaa
 1   5   10   15
Xaa Xaa Gly Xaa Asp Val
            20

<210> 512
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 512
Arg Ala Ser Gln Ser Val Gly Ser Asn Leu Ala
 1   5   10

<210> 513
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 513
Tyr Thr Phe Thr Ser Thr Tyr Met Ser
 1   5

<210> 514
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 514
Tyr Thr Phe Thr Ser Tyr Thr Met Ser
 1   5

<210> 515
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 515
Tyr Thr Phe Thr Ser Tyr Leu Met Ser
 1   5

<210> 516
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 516
Tyr Thr Phe Thr Ser Arg Tyr Met Ser
 1   5

<210> 517
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 517
Tyr Thr Phe Ala Ser Arg Tyr Met Ser
 1   5

<210> 518
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 518
Tyr Thr Leu Thr Ser Arg Tyr Met Ser
 1   5

<210> 519
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 519
Tyr Thr Phe Thr Ser Leu Tyr Ile Ser
 1   5

<210> 520
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 520
Tyr Thr Phe Thr Lys Tyr Tyr Met Ser
 1   5

<210> 521
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 521
Tyr Thr Phe Thr Ser Leu Tyr Met Ser
 1   5

<210> 522
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 522
Tyr Thr Phe Thr Ser Gly Tyr Met Ser
 1   5

<210> 523
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 523
Tyr Thr Phe Thr Ser Gln Tyr Met Ser
 1   5

<210> 524
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 524
Tyr Thr Phe Thr Ser His Tyr Met Ser

1 5

<210> 525
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 525
Ile Ile Asn Pro Trp Gly Gly Thr Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15
Gly

<210> 526
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 526
Ile Ile Asn Pro Tyr Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15
Gly

<210> 527
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 527
Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15
Gly

<210> 528
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 528
Val Ile Asn Pro Phe Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15
Gly

<210> 529
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 529
Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Arg
 1   5   10   15
Gly

<210> 530
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 530
Ile Ile Asn Pro Val Gly Gly Ser Ala Ser Tyr Ala Arg Lys Phe Gln
 1   5   10   15
Gly

<210> 531
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 531
Ile Ile Asn Pro Leu Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 532
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 532
Val Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 533
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 533
Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 534
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 534
Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe Arg
 1   5   10   15
Gly

<210> 535
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 535
Ile Ile Asn Pro Ile Gly Gly Ser Ala Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 536
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 536
Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Arg Lys Phe Gln
 1   5   10   15
Gly

<210> 537
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 537
Ile Ile Asn Pro Ile Gly Gly Ser Ile Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 538
<211> 17
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 538
Ile Val Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Arg Phe Gln
 1   5   10   15
Gly

<210> 539
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 539
Ile Ile Asn Pro Tyr Gly Gly Thr Thr Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 540
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 540
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Gly Arg Tyr
 1   5   10   15
Tyr Tyr Gly Leu Asp Val
            20

<210> 541
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 541
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Gly Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 542
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 542
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg His
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 543
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 543
Ala Arg Asp Pro Ser Gly Ile Ala Ala Pro Gly Pro Ala Ser Arg Gly
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 544
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 544
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Gly Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 545
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 545
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Gly
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 546
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 546
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Pro
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 547
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 547
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Leu Gly Met Asp Val
            20

<210> 548
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 548
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Gly Ser Arg Tyr
 1   5   10   15
Tyr Arg Gly Met Asp Val
            20

<210> 549
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 549
Ala Arg Asp Pro Ser Gly Ile Ala Val Ala Gly Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 550
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 550
Val Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 551
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 551
Thr Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 552
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 552
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Gly Met Asp Val
            20

<210> 553
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 553
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Gly
 1   5   10   15
Tyr Gln Gly Met Asp Val
            20

<210> 554
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 554
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Phe Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 555
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 555
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ala Arg His
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 556
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 556
Ala Arg Asp Pro Phe Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 557
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 557
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Phe Pro Ala Gly Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 558
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 558
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Tyr Pro Ala Ser Arg Tyr
 1   5   10   15
Asn Tyr Gly Met Asp Val
            20

<210> 559
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 559
Ala Arg Asp Pro Gly Gly Ala Ala Ala Ala Gly Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 560
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 560
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Tyr Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Arg Gly Met Asp Val
            20

<210> 561

<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 561
Ala Arg Asp Pro Ser Gly Ile Gly Leu Ala Gly Pro Phe Ser Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 562
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 562
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Ser
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 563
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 563
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Phe Pro Ala Ser Arg Ser
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 564
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 564
Ala Arg Asp Pro Ser Gly Ile Ala Leu Leu Gly Pro Ala Ser Arg Tyr
 1   5   10   15
Tyr Tyr Gly Met Asp Val
            20

<210> 565
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>

<221> VARIANT
<222> 1
<223> Xaa = G or Y

<220>
<221> VARIANT
<222> 4
<223> Xaa = S, R, G, or T

<220>
<221> VARIANT
<222> 5
<223> Xaa = S, G, or N

<220>
<221> VARIANT
<222> 8
<223> Xaa = I or M

<220>
<221> VARIANT
<222> 9
<223> Xaa = S or A

<400> 565
Xaa Thr Phe Xaa Xaa Tyr Ala Xaa Xaa
 1   5

<210> 566
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = I or V

<220>
<221> VARIANT
<222> 5
<223> Xaa = I, R, G, A, S, T, or Q

<220>
<221> VARIANT
<222> 6
<223> Xaa = F or G

<220>
<221> VARIANT
<222> 8
<223> Xaa = T, R, or W

<220>
<221> VARIANT
<222> 10
<223> Xaa = S, N, Q, or W

<400> 566
Gly Ile Xaa Pro Xaa Xaa Gly Xaa Ala Xaa Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 567
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 567
Gly Thr Phe Arg Ser Tyr Ala Ile Ser
 1   5

<210> 568
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 568
Gly Thr Phe Gly Ser Tyr Ala Ile Ser
 1   5

<210> 569
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 569
Tyr Thr Phe Thr Gly Tyr Ala Met Ala
 1   5

<210> 570
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 570
Gly Thr Phe Arg Asn Tyr Ala Ile Ser
 1   5

<210> 571
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 571
Gly Ile Val Pro Arg Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 572

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

<220>
<223> Synthetic Construct

<400> 572
Gly Ile Ile Pro Gly Phe Gly Thr Ala Gln Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 573
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 573
Gly Ile Ile Pro Gly Phe Gly Thr Ala Trp Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 574
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 574
Gly Ile Ile Pro Ala Phe Gly Thr Ala Trp Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 575
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 575
Gly Ile Ile Pro Ser Phe Gly Thr Ala Ser Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 576
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 576

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

<210> 577
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 577
Gly Ile Ile Pro Gly Phe Gly Arg Ala Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 578
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 578
Gly Ile Ile Pro Gln Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 579
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 579
Gly Ile Ile Pro Ile Gly Gly Trp Ala Asn Tyr Ala Gln Lys Phe Gln
 1   5   10   15
Gly

<210> 580
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 5
<223> Xaa = S or G

<220>
<221> VARIANT
<222> 8
<223> Xaa = H or R

<400> 580
Arg Ser Ser Gln Xaa Leu Leu Xaa Ser Asn Gly Tyr Asn Tyr Leu Asp
 1   5   10   15

<210> 581
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 6
<223> Xaa = A or V

<400> 581
Leu Gly Ser Asn Arg Xaa Ser
 1   5

<210> 582
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 6
<223> Xaa = G or V

<220>
<221> VARIANT
<222> 7
<223> Xaa = Y or R

<400> 582
Tyr Ser Ile Ser Ser Xaa Xaa Tyr Trp Gly
 1   5   10

<210> 583
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = T, S or A

<220>
<221> VARIANT
<222> 4
<223> Xaa = H or P

<400> 583
Xaa Ile Tyr Xaa Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 584
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 584
Arg Ser Ser Gln Ser Leu Leu Arg Ser Asn Gly Tyr Asn Tyr Leu Asp
 1   5   10   15

<210> 585
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 585
Arg Ser Ser Gln Gly Leu Leu Arg Ser Asn Gly Tyr Asn Tyr Leu Asp
 1   5   10   15

<210> 586
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 586
Leu Gly Ser Asn Arg Val Ser
 1   5

<210> 587
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 587
Tyr Ser Ile Ser Ser Val Arg Tyr Trp Gly
 1   5   10

<210> 588
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 588
Ala Ile Tyr Pro Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 589

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

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = G or Y

<220>
<221> VARIANT
<222> 4
<223> Xaa = S, V, Y, K, or P

<220>
<221> VARIANT
<222> 6
<223> Xaa = S or R

<220>
<221> VARIANT
<222> 7
<223> Xaa = D or E

<400> 589
Xaa Ser Ile Xaa Ser Xaa Xaa Tyr Tyr Trp Gly
 1   5   10

<210> 590
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = S, G, Q, or L

<220>
<221> VARIANT
<222> 4
<223> Xaa = Y, W, or R

<220>
<221> VARIANT
<222> 5
<223> Xaa = S, R, K, or A

<220>
<221> VARIANT
<222> 9
<223> Xaa = Y or V

<400> 590
Xaa Ile Tyr Xaa Xaa Gly Ser Thr Xaa Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 591
<211> 11
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 591
Gly Ser Ile Val Ser Ser Asp Tyr Tyr Trp Gly
 1   5   10

<210> 592
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 592
Gly Ser Ile Tyr Ser Ser Asp Tyr Tyr Trp Gly
 1   5   10

<210> 593
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 593
Gly Ser Ile Lys Ser Ser Glu Tyr Tyr Trp Gly
 1   5   10

<210> 594
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 594
Tyr Ser Ile Pro Ser Asp Tyr Tyr Trp Gly
 1   5   10

<210> 595
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 595
Gly Ser Ile Ser Ser Ser Glu Tyr Tyr Trp Gly
 1   5   10

<210> 596
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 596
Gly Ser Ile Ser Ser Arg Glu Tyr Tyr Trp Gly
 1   5   10

<210> 597
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 597
Gly Ile Tyr Tyr Arg Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 598
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 598
Gln Ile Tyr Tyr Lys Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 599
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 599
Ser Ile Tyr Trp Arg Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 600
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 600
Ser Ile Tyr Arg Ala Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 601
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 601

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

<210> 602
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 602
Leu Ile Tyr Tyr Arg Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 603
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 603
Ser Ile Tyr Arg Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1   5   10   15

<210> 604
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 604
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Gly Ala Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Trp Ile Asn Pro Asn Ser Gly Phe Thr Arg Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 605
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 605
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15

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


<210> 606
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 606
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Gly Ala Tyr
            20                  25                  30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Trp Val Asn Pro Asn Ser Gly Gly Thr Arg Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 607
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 607
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20                  25                  30
Met Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Ile Ile Gly Pro Ser Gly Gly Tyr Thr Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 608
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 608
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Pro Gly Tyr
            20   25   30
Leu Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Trp Ile Asn Pro Val Ser Gly Ser Thr Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 609
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 609
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Gly Ala Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Trp Val Asn Pro Asn Ser Gly Gly Thr Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 610
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 610
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Leu Ala Tyr

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


<210> 611
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 611
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Phe Ser Tyr
            20                  25                  30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Trp Ile Asn Pro Ser Gly Gly Asn Thr Arg Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 612
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 612
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ala Tyr
            20                  25                  30
Leu Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Trp Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 613
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 613
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ala Ser Tyr
            20   25   30
Tyr Met Trp Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Leu Pro Ser Gly Gly Arg Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 614
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 614
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Leu Ala Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Trp Ile Asn Pro Ser Trp Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 615
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 615
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ala Tyr
            20   25   30

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

<210> 616
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 616
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
20 25 30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Thr Asn Pro Asn Ser Gly Gly Thr Arg Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
100 105 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 617
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 617
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Gly Gly Tyr
20 25 30
Leu Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Trp Ile Asn Pro Met Ser Gly Gly Thr Arg Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
100 105 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 618
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 618
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Arg Ala Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Trp Ile Asn Pro Ser Gln Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ile Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Arg Leu Arg Ser Asp Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Lys Arg Ser Ser Gly Trp Tyr Glu Gly Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 619
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 619
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Thr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Trp Gly Gly Thr Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 620
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 620
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr

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

<210> 621
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 621

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Thr
            20                  25                  30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Ile Ile Asn Pro Tyr Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100                 105                 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115                 120                 125
Ser
```

<210> 622
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 622

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20                  25                  30
Leu Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
```

100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 623
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 623
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30
Leu Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Val Ile Asn Pro Phe Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 624
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 624
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 625
<211> 129
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 625
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ala Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Gly Arg Tyr
            100   105   110
Tyr Tyr Gly Leu Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 626
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 626
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Gly Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Ala Val Thr Val Ser
        115   120   125
Ser

<210> 627
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 627
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
            20   25   30

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

<210> 628
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 628
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Leu Thr Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 629
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 629
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Ala Ser Tyr Ala Arg Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100   105   110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 630
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 630
Glu Val Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Gly Ser Asn
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
    50   55   60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65   70   75   80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Arg Leu Gly Pro Trp
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 631
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 631
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Pro Gly Pro Ala Ser Arg Gly
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 632
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 632
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Gly Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 633
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 633
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Gly
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 634
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 634
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr

65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Pro
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 635
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 635
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Leu Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 636
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 636
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Gly Ser Arg Tyr
100 105 110
Tyr Arg Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 637
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 637
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Val Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 638
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 638
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20   25   30
Leu Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Leu Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 639
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 639

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Leu
20 25 30
Tyr Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Val Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 640
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 640
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Arg
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Leu Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 641
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 641
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 642
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 642
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Pro Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Val Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 643
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 643
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 644
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 644
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Ala Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Gly Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 645
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 645
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Arg Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Thr Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 646
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 646
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala

```
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20                  25                  30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Ala Ser Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Gly Arg Tyr
            100                 105                 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115                 120                 125
Ser
```

<210> 647
<211> 128
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 647

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20                  25                  30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Tyr
            100                 105                 110
Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120                 125
```

<210> 648
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 648

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20                  25                  30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Gly
```

100 105 110
Tyr Gln Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 649
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 649
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Phe Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 650
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 650
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Gly
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 651
<211> 129
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 651
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Glu Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Gly Pro Ala Ala Arg His
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 652
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 652
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Phe Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 653
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 653
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Arg Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30

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

<210> 654
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 654
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Arg Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Gly Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Tyr Pro Ala Ser Arg Tyr
100 105 110
Asn Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 655
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 655
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Ile Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110

Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 656
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 656
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Gly Gly Ala Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 657
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 657
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Tyr Pro Ala Ser Arg Tyr
            100   105   110
Tyr Arg Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 658
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 658
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Val Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Arg Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Gly Leu Ala Gly Pro Phe Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 659
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 659
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Ala Gly Pro Ala Ser Arg Ser
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 660
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 660
Gln Val Arg Leu Val Gln Ser Gly Ala Glu Val Arg Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met

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

<210> 661
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 661
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Leu Leu Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 662
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 662
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Gly Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser

115 120 125
Ser

<210> 663
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 663
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Thr
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 664
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 664
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Leu
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 665
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 665
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Gly
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Tyr Gly Gly Thr Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 666
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 666
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Gln
            20   25   30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Tyr Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
            100   105   110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
        115   120   125
Ser

<210> 667
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 667
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Ile Ser Ser Trp
            20   25   30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
        35   40   45

Tyr Gly Ala Ser Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Ala Arg Leu Gly Pro Trp
85 90 95
Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 668
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 668
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Gln
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Val Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 669
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 669
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser His
20 25 30
Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Ile Ile Asn Pro Ile Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Asp Pro Ser Gly Ile Ala Ala Ala Gly Pro Ala Ser Arg Tyr
100 105 110
Tyr Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser
115 120 125
Ser

<210> 670
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 670
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Val Pro Arg Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 671
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 671
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Gly Phe Gly Thr Ala Gln Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 672
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 672
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Arg Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met

```
        35                  40                  45
Gly Gly Ile Ile Pro Gly Phe Gly Thr Ala Trp Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 673
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 673
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Gly Ser Tyr
            20                  25                  30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Gly Ile Ile Pro Ala Phe Gly Thr Ala Trp Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 674
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 674
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20                  25                  30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Gly Ile Ile Pro Ser Phe Gly Thr Ala Ser Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 675
```

<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 675
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr
            20   25   30
Ala Met Ala Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Thr Phe Gly Thr Ala Trp Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 676
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 676
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Ser Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Gly Ile Ile Pro Gly Phe Gly Arg Ala Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100   105   110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 677
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 677
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Gly Ser Tyr
            20   25   30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45

```
Gly Gly Ile Ile Pro Gln Phe Gly Thr Ala Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 678
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 678

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr Phe Arg Asn Tyr
            20                  25                  30
Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45
Gly Gly Ile Ile Pro Ile Gly Gly Trp Ala Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gln Gly Arg Lys Thr Gly Tyr Tyr Tyr Tyr Tyr Gly Met Asp
            100                 105                 110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 679
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 679

```
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Val
            20                  25                  30
Arg Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
        35                  40                  45
Ile Gly Ser Ile Tyr His Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
    50                  55                  60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65                  70                  75                  80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gln Gly Ser Ile Lys Gln Gly Tyr Tyr Gly Met Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 680
<211> 122

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 680
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Ser Ser Val
            20   25   30
Arg Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp
        35   40   45
Ile Gly Ala Ile Tyr Pro Ser Gly Ser Thr Tyr Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gln Gly Ser Ile Lys Gln Gly Tyr Tyr Gly Met Asp Val Trp
            100   105   110
Gly Gln Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 681
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 681
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Arg Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Pro
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Val Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Gln
                85   90   95
Gln Glu Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 682
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 682
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Ser Ala Ser Ile Ser Cys Arg Ser Ser Gln Gly Leu Leu Arg Ser
            20   25   30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile

65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Gln
85 90 95
Gln Glu Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 683
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 683
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Arg Ser
20 25 30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Gln
85 90 95
Gln Glu Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 684
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 684
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Gly Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Arg Ser
20 25 30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
35 40 45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65 70 75 80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Gln
85 90 95
Gln Glu Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 685
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 685
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15

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

<210> 686
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 686
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
20 25 30
Asp Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45
Trp Ile Gly Gly Ile Tyr Tyr Arg Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95
Cys Ala Arg Gly Val Gly Ser Gly Tyr Ser Tyr Gly Tyr Arg Tyr Phe
100 105 110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 687
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 687
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
20 25 30
Asp Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
35 40 45
Trp Ile Gly Gln Ile Tyr Tyr Lys Gly Ser Thr Tyr Tyr Asn Pro Ser
50 55 60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65 70 75 80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85 90 95
Cys Ala Arg Gly Val Gly Ser Gly Tyr Ser Tyr Gly Tyr Arg Tyr Phe
100 105 110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 688
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 688
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Tyr Ser Ser
            20   25   30
Asp Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Ser Ile Tyr Trp Arg Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Gly Val Gly Ser Gly Tyr Ser Tyr Gly Tyr Arg Tyr Phe
            100   105   110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 689
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 689
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Lys Ser Ser
            20   25   30
Glu Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35   40   45
Trp Ile Gly Ser Ile Tyr Arg Ala Gly Ser Thr Tyr Tyr Asn Pro Ser
    50   55   60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65   70   75   80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85   90   95
Cys Ala Arg Gly Val Gly Ser Gly Tyr Ser Tyr Gly Tyr Arg Tyr Phe
            100   105   110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 690
<211> 124
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 690
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Ala Val Ser Gly Tyr Ser Ile Pro Ser Asp

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


<210> 691
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 691
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Ser
            20                  25                  30
Glu Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35                  40                  45
Trp Ile Gly Leu Ile Tyr Tyr Arg Gly Ser Thr Tyr Tyr Asn Pro Ser
    50                  55                  60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65                  70                  75                  80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85                  90                  95
Cys Ala Arg Gly Val Gly Ser Gly Tyr Ser Tyr Gly Tyr Arg Tyr Phe
            100                 105                 110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210> 692
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 692
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Arg
            20                  25                  30
Glu Tyr Tyr Trp Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
        35                  40                  45
Trp Ile Gly Ser Ile Tyr Arg Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
    50                  55                  60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
65                  70                  75                  80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
                85                  90                  95
Cys Ala Arg Gly Val Gly Ser Gly Tyr Ser Tyr Gly Tyr Arg Tyr Phe
            100                 105                 110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125
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<210> 693
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 693
Thr Lys Cys Leu Arg Arg Glu Ala Pro Arg Trp Asp Ala Pro Leu Arg
 1   5   10   15
Asp Pro Ala Leu Arg Gln Leu Leu
            20

<210> 694
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 694
Ser Ser Asp Phe Ala Lys Asn Phe
 1   5

<210> 695
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 695
Gly Gly Thr Ala Thr Thr Gly Ala Gly Gly Gly Thr Cys Gly Cys Gly
 1   5   10   15
Ala Ala Cys Cys Ala Cys Ala Cys Thr Cys Ala Gly Ala Gly Ala Gly
            20   25   30
Cys Ala Ala Thr Gly Thr Cys Cys Cys
        35   40

<210> 696
<211> 52
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 696
Gly Gly Gly Gly Gly Ala Ala Gly Thr Thr Gly Thr Cys Cys Thr Gly
 1   5   10   15
Ala Gly Thr Gly Thr Cys Cys Thr Cys Gly Thr Thr Cys Gly Cys Cys
            20   25   30
Ala Cys Thr Cys Cys Gly Ala Gly Ala Thr Thr Gly Ala Gly Ala Gly
        35   40   45
Gly Ala Gly Ala
    50

<210> 697
<211> 44
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 697
Gly Gly Thr Ala Thr Thr Gly Ala Gly Gly Gly Thr Cys Gly Cys Gly
 1   5   10   15
Cys Cys Cys Cys Cys Ala Thr Gly Ala Ala Ala Gly Ala Ala Gly Cys
            20   25   30
Ala Ala Ala Cys Ala Thr Cys Cys Gly Ala Gly Gly
        35   40

<210> 698
<211> 49
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 698
Cys Ala Cys Gly Thr Thr Thr Gly Thr Ala Cys Ala Gly Gly Thr Ala
 1   5   10   15
Cys Thr Cys Cys Cys Ala Gly Gly Cys Cys Gly Cys Gly Ala Cys Thr
            20   25   30
Cys Cys Gly Ala Gly Ala Thr Thr Gly Ala Gly Ala Gly Gly Ala Gly
        35   40   45
Ala

<210> 699
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 699
Lys Thr Ile Gly Val Lys Ile Tyr Ser Phe Gly Leu Gly Gly Arg Phe
 1   5   10   15
Leu Phe Ala Ser Val
            20

<210> 700
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 700
Asn Gly Leu Trp Val Ser Lys Asn Phe Gly Gly
 1   5   10

<210> 701
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 701
Phe Ala Ser Val Met Ala Asp Lys Asp Thr Thr Arg Arg Ile His Val
 1   5   10   15
Ser Thr Asp Gln Gly Asp Thr Trp Ser
            20   25

<210> 702
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 702
Phe Val Gln Thr Asp Leu Pro Phe His Pro Leu Thr Gln Met Met Tyr
 1   5   10   15
Ser Pro Gln Asn Ser
            20

<210> 703
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 703
Asn Gly Leu Trp Val Ser Lys Asn Phe Gly Gly Lys Trp Glu Glu Ile
 1   5   10   15
His Lys Ala Val Cys Leu Ala Lys
            20

<210> 704
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 704
Phe Val Gln Thr Asp Leu Pro Phe His Pro Leu Thr Gln Met Met Tyr
 1   5   10   15
Ser Pro Gln Asn Ser Asp Tyr Leu Leu
            20   25

<210> 705
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 705
Glu Pro Gly Asp Thr Gly Phe Gly Thr Ile Phe Thr Ser Asp Asp Arg
 1   5   10   15
Gly Ile Val Tyr Ser Lys Ser Leu Asp
            20   25

<210> 706
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 706
His Val Pro Leu Val Ile Met Thr Gln Val Pro Leu Val Ile Val Ser
 1   5   10   15

<210> 707
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 707
Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val His Leu
 1   5   10   15
Tyr Arg Asn Gly Lys
            20

<210> 708
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 708
His Ser Thr Asp Pro Glu Asp Tyr Glu Asp
 1   5   10

<210> 709
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 709
Ile Thr Phe Asp Gln Gly Gly Arg Trp Thr His Leu Arg Lys Pro
 1   5   10   15

<210> 710
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 710
Cys Thr Ser Asn Phe Leu Ser Pro Glu Lys
 1   5   10

<210> 711

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

<220>
<223> Synthetic Construct

<400> 711
Leu Ser Thr Glu Asn Gly Leu Trp Val Ser Lys
 1   5   10

<210> 712
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 712
Gly Pro Glu Asn Ser Gly Lys
 1   5

<210> 713
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 713
Leu Pro Phe His Pro Leu Thr Gln Met Met
 1   5   10

<210> 714
<211> 678
<212> PRT
<213> Homo sapien

<400> 714
Ser Ala Pro Gly Glu Asp Glu Glu Cys Gly Arg Val Arg Asp Phe Val
 1   5   10   15
Ala Lys Leu Ala Asn Asn Thr His Gln His Val Phe Asp Asp Leu Arg
            20   25   30
Gly Ser Val Ser Leu Ser Trp Val Gly Asp Ser Thr Gly Val Ile Leu
        35   40   45
Val Leu Thr Thr Phe His Val Pro Leu Val Ile Met Thr Phe Gly Gln
    50   55   60
Ser Lys Leu Tyr Arg Ser Glu Asp Tyr Gly Lys Asn Phe Lys Asp Ile
65   70   75   80
Thr Asp Leu Ile Asn Asn Thr Phe Ile Arg Thr Glu Phe Gly Met Ala
                85   90   95
Ile Gly Pro Glu Asn Ser Gly Lys Val Val Leu Thr Ala Glu Val Ser
            100   105   110
Gly Gly Ser Arg Gly Gly Arg Ile Phe Arg Ser Ser Asp Phe Ala Lys
        115   120   125
Asn Phe Val Gln Thr Asp Leu Pro Phe His Pro Leu Thr Gln Met Met
    130   135   140
Tyr Ser Pro Gln Asn Ser Asp Tyr Leu Leu Ala Leu Ser Thr Glu Asn
145   150   155   160
Gly Leu Trp Val Ser Lys Asn Phe Gly Gly Lys Trp Glu Glu Ile His
                165   170   175
Lys Ala Val Cys Leu Ala Lys Trp Gly Ser Asp Asn Thr Ile Phe Phe
            180   185   190

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Thr Thr Tyr Ala Asn Gly Ser Cys Lys Ala Asp Leu Gly Ala Leu Glu
        195                 200                 205
Leu Trp Arg Thr Ser Asp Leu Gly Lys Ser Phe Lys Thr Ile Gly Val
    210                 215                 220
Lys Ile Tyr Ser Phe Gly Leu Gly Gly Arg Phe Leu Phe Ala Ser Val
225                 230                 235                 240
Met Ala Asp Lys Asp Thr Thr Arg Arg Ile His Val Ser Thr Asp Gln
                245                 250                 255
Gly Asp Thr Trp Ser Met Ala Gln Leu Pro Ser Val Gly Gln Glu Gln
            260                 265                 270
Phe Tyr Ser Ile Leu Ala Ala Asn Asp Asp Met Val Phe Met His Val
        275                 280                 285
Asp Glu Pro Gly Asp Thr Gly Phe Gly Thr Ile Phe Thr Ser Asp Asp
    290                 295                 300
Arg Gly Ile Val Tyr Ser Lys Ser Leu Asp Arg His Leu Tyr Thr Thr
305                 310                 315                 320
Thr Gly Gly Glu Thr Asp Phe Thr Asn Val Thr Ser Leu Arg Gly Val
                325                 330                 335
Tyr Ile Thr Ser Val Leu Ser Glu Asp Asn Ser Ile Gln Thr Met Ile
            340                 345                 350
Thr Phe Asp Gln Gly Gly Arg Trp Thr His Leu Arg Lys Pro Glu Asn
        355                 360                 365
Ser Glu Cys Asp Ala Thr Ala Lys Asn Lys Asn Glu Cys Ser Leu His
    370                 375                 380
Ile His Ala Ser Tyr Ser Ile Ser Gln Lys Leu Asn Val Pro Met Ala
385                 390                 395                 400
Pro Leu Ser Glu Pro Asn Ala Val Gly Ile Val Ile Ala His Gly Ser
                405                 410                 415
Val Gly Asp Ala Ile Ser Val Met Val Pro Asp Val Tyr Ile Ser Asp
            420                 425                 430
Asp Gly Gly Tyr Ser Trp Thr Lys Met Leu Glu Gly Pro His Tyr Tyr
        435                 440                 445
Thr Ile Leu Asp Ser Gly Gly Ile Ile Val Ala Ile Glu His Ser Ser
    450                 455                 460
Arg Pro Ile Asn Val Ile Lys Phe Ser Thr Asp Glu Gly Gln Cys Trp
465                 470                 475                 480
Gln Thr Tyr Thr Phe Thr Arg Asp Pro Ile Tyr Phe Thr Gly Leu Ala
                485                 490                 495
Ser Glu Pro Gly Ala Arg Ser Met Asn Ile Ser Ile Trp Gly Phe Thr
            500                 505                 510
Glu Ser Phe Leu Thr Ser Gln Trp Val Ser Tyr Thr Ile Asp Phe Lys
        515                 520                 525
Asp Ile Leu Glu Arg Asn Cys Glu Glu Lys Asp Tyr Thr Ile Trp Leu
    530                 535                 540
Ala His Ser Thr Asp Pro Glu Asp Tyr Glu Asp Gly Cys Ile Leu Gly
545                 550                 555                 560
Tyr Lys Glu Gln Phe Leu Arg Leu Arg Lys Ser Ser Val Cys Gln Asn
                565                 570                 575
Gly Arg Asp Tyr Val Val Thr Lys Gln Pro Ser Ile Cys Leu Cys Ser
            580                 585                 590
Leu Glu Asp Phe Leu Cys Asp Phe Gly Tyr Tyr Arg Pro Glu Asn Asp
        595                 600                 605
Ser Lys Cys Val Glu Gln Pro Glu Leu Lys Gly His Asp Leu Glu Phe
    610                 615                 620
Cys Leu Tyr Gly Arg Glu Glu His Leu Thr Thr Asn Gly Tyr Arg Lys
625                 630                 635                 640
Ile Pro Gly Asp Lys Cys Gln Gly Gly Val Asn Pro Val Arg Glu Val
                645                 650                 655
Lys Asp Leu Lys Lys Lys Cys Thr Ser Asn Phe Leu Ser Pro Glu Lys
            660                 665                 670
Gln Asn Ser Lys Ser Asn
        675
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