SEQUENCE LISTING

<110> Denali Therapeutics Inc.

<120> ENGINEERED TRANSFERRIN RECEPTOR BINDING POLYPEPTIDES

<130> 102342-000130PC-1073688

<150> US 62/460,692
<151> 2017-02-17

<150> US 62/543,658
<151> 2017-08-10

<150> US 62/583,314
<151> 2017-11-08

<160> 626

<170> PatentIn version 3.5

<210> 1
<211> 220
<212> PRT
<213> Homo sapiens

<400> 1

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  2
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<213>  Artificial Sequence

<220>
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<400>  2

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60
```

```
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys
```

<210> 3
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 3

```
Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1               5                   10                  15


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


Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
        35                  40                  45


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


Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
65                  70                  75                  80


Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85                  90                  95


Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100                 105
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<210> 4
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 4

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly Leu Val
145                 150                 155                 160


Trp Val Gly Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Ala Lys Ser Thr Trp Gln Gln
            180                 185                 190


Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 5
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 5

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Val
145                 150                 155                 160

Trp Ser His Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Tyr Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

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

<220>
<223> Synthetic construct

<400> 6

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Gln Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Glu Lys Ser Asp Trp Gln Gln
            180                 185                 190


Gly His Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  7
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  7

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Val Gly Thr Pro
145                 150                 155                 160

Trp Ala Leu Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Leu Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 8
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 8

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Val
145                 150                 155                 160


Trp Ser Lys Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190
```

```
Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  9
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  9

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160


Trp Ala Val Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190


Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 10
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 10

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly Leu Val
145                 150                 155                 160

Trp Val Gly Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 11
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 11

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Met Gly His Val
145                 150                 155                 160

Trp Val Gly Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 12
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 12

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly Leu Val
145                 150                 155                 160

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

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 13
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 13

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 14
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 14

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

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

<220>
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<400> 15

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160


Trp Val Gly Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190


Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  16
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  16

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Val Ala Thr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 17
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 17

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly Pro Val
145                 150                 155                 160


Trp Val His Thr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190
```

```
Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 18
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 18

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160


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


Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190


Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  19
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  19

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Val Asn Gln Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 20
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 20

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Val Asn Phe Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 21
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 21

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Ala Val Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 22
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 22

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160


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

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190


Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 23
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 23

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

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

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 24
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 24

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  25
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  25

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 26
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 26

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 27
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 27

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 28
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 28

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Gln Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 29
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 29

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Gln Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 30
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 30

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Phe Asp Tyr Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 31
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 31

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Phe Asp Met Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 32
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 32

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Phe Glu Tyr Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 33
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 33

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Phe Glu Met Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  34
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  34

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

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

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 35
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 35

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


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


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190
```

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 36
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 36

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

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

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 37
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 37

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Phe Asp Tyr Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 38
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 38

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Phe Gly Met Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  39
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  39
```

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

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

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe Tyr Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 40
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 40

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Phe Gly Leu Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 41
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 41

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Phe Asp Tyr Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe Ser Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 42
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 42

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Ile Asp Tyr Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Gly Phe Ser Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  43
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  43

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

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

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe Phe Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 44
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 44

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


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


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190
```

```
Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Gly Phe Tyr Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  45
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  45

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Ile Asp Tyr Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Gly Phe Ser Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 46
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 46

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

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

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe His Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 47
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 47

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Glu Phe
        35                  40                  45
```

```
Ile Trp Tyr Val Asp Gly Val Asp Val Arg Tyr Glu Trp Gln Leu Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 48
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 48

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gly Phe
        35                  40                  45

Val Trp Tyr Val Asp Gly Val Pro Val Ser Trp Glu Trp Tyr Trp Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 49
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 49

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe
        35                  40                  45


Asp Trp Tyr Val Asp Gly Val Met Val Arg Arg Glu Trp His Arg Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 50
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 50

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Ser Phe
        35                  40                  45


Glu Trp Tyr Val Asp Gly Val Pro Val Arg Trp Glu Trp Gln Trp Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145 150 155 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
180 185 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 51
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 51

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Ala Phe
35 40 45

Thr Trp Tyr Val Asp Gly Val Pro Val Arg Trp Glu Trp Gln Asn Pro
50 55 60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 52
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 52

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Asn Phe
        35                  40                  45

Asp Trp Tyr Val Asp Gly Val Leu Val Arg Arg Glu Trp His Arg Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 53
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 53

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe
        35                  40                  45


Val Trp Tyr Val Asp Gly Val Ala Val Arg Trp Glu Trp Ile Arg Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190
```

```
Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  54
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  54

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Glu Phe
        35                  40                  45


Ile Trp Tyr Val Asp Gly Val Glu Val Ala Trp Glu Trp Phe Trp Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 55
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 55

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gly Phe
        35                  40                  45


Ala Trp Tyr Val Asp Gly Val Asn Val Arg Val Glu Trp Gln Tyr Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 56
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 56

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gly Phe
        35                  40                  45
```

```
Val Trp Tyr Val Asp Gly Val Glu Val Arg Arg Glu Trp Val Arg Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 57
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 57

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Ser Phe
        35                  40                  45

Asp Trp Tyr Val Asp Gly Val Leu Val Arg Arg Glu Trp Gln Arg Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 58
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 58

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Glu Phe
        35                  40                  45


Thr Trp Tyr Val Asp Gly Val Asp Val Arg Tyr Glu Trp Tyr Tyr Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  59
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  59

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe
        35                  40                  45


Thr Trp Tyr Val Asp Gly Val Asp Val Arg Tyr Glu Trp Val Arg Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 60
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 60

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  61
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  61

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Tyr Phe
        35                  40                  45

Asp Trp Tyr Val Asp Gly Val Met Val Arg Arg Glu Trp His Arg Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 62
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 62

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Trp Phe
        35                  40                  45


Glu Trp Tyr Val Asp Gly Val Phe Val Gly Val Ala Tyr Asp Val Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190
```

```
Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  63
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  63

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Pro Gln Thr Pro Pro Trp Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Thr Tyr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 64
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 64

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Pro Pro Ser Pro Pro Trp Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Ser Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 65
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 65

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Pro Gln Thr Pro Pro Trp Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Glu Tyr Tyr Ser Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 66
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 66

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Phe Arg Gly Pro Pro Trp Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Glu Tyr Tyr His Asp Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 67
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 67

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Pro Gln Thr Val Pro Trp Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Ser Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  68
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  68

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Pro Lys Met Pro Pro Trp Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Thr Tyr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 69
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 69

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Pro Pro Val Pro Pro Trp Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Glu Tyr Tyr Ser Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  70
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  70

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Pro Ala Phe Pro Pro Trp Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Glu Tyr Tyr Gln Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 71
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 71

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Ala Ile Trp Pro Pro Trp Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Ser Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190
```

```
Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  72
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  72

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Pro Pro Val Ala Pro Trp Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Ser Ser Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 73
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 73

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Pro Gln Met Pro Pro Gln Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Ser Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 74
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 74

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Pro Gln Thr Ala Pro Trp Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Glu Tyr Tyr Thr Tyr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 75
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 75

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Pro Gln Thr Pro Pro Gln Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Glu Tyr Tyr Ser Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 76
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 76

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Pro Gln Thr Pro Pro Trp Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Thr Tyr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  77
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  77

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Pro Arg Val Pro Pro Trp Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Glu Tyr Tyr Gln Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 78
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 78

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Pro Ser Val Pro Pro Trp Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Glu Tyr Tyr Ser Asn Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  79
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  79

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Met Leu Trp Pro Val Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Val Tyr His Arg Pro Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 80
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 80

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Met Leu Trp Pro Val Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Thr Tyr His Asn Pro Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190
```

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 81
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 81

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Met Glu Trp Pro Val Thr Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Thr Tyr His Asn Pro Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  82
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  82

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Met Leu Trp Pro Val Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Thr Tyr His His Pro Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 83
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 83

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Asp Asp Leu Thr Phe Gln Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Val Tyr Val Thr Pro Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 84
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 84

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Asp Asp Leu Thr Phe Gln Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Leu Tyr Val Thr Pro Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 85
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 85

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


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


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


Arg Glu Glu Trp Tyr Asp Val Pro Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  86
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  86

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser Val Pro Pro Arg Met Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Ser
    50                  55                  60


Leu Thr Ser Gln His Asn Ser Thr Val Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 87
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 87

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser Val Pro Pro Trp Met Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Ser
    50                  55                  60

Leu Thr Ser Gln His Asn Ser Thr Val Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  88
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  88

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser Asp Met Trp Glu Tyr Val Lys Phe
        35                  40                  45

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

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

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 89
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 89

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser Asp Asp Trp Thr Trp Val Lys Phe
        35                  40                  45


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


Trp Ile Ala Gln Pro Asn Ser Thr Trp Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190
```

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 90
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 90

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser Asp Asp Trp Glu Trp Val Lys Phe
35 40 45

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

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

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 91
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 91

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Trp Val Trp Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Ser Val
                85                  90                  95
```

```
Val Asn Ile Ala Leu Trp Trp Ser Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  92
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  92

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Val Val Gly Phe
        35                  40                  45
```

```
Arg Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Arg Val
                85                  90                  95

Ser Asn Ser Ala Leu Thr Trp Lys Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 93
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 93

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Val Val Gly Phe
        35                  40                  45

Arg Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Arg Val
                85                  90                  95

Ser Asn Ser Ala Leu Ser Trp Arg Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 94
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 94

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Ile Val Gly Phe
        35                  40                  45


Arg Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Arg Val
                85                  90                  95


Ser Asn Ser Ala Leu Arg Trp Arg Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  95
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  95

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Ala Val Gly Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Gln Val
                85                  90                  95


Phe Asn Trp Ala Leu Asp Trp Val Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 96
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (47)..(47)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (49)..(49)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (56)..(56)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (58)..(63)
<223> Xaa can be any naturally occurring amino acid

<400> 96

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Xaa Phe
        35                  40                  45

Xaa Trp Tyr Val Asp Gly Val Xaa Val Xaa Xaa Xaa Xaa Xaa Xaa Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205
```

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 97
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (39)..(44)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (68)..(68)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (70)..(72)
<223> Xaa can be any naturally occurring amino acid

<400> 97

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Xaa Xaa Xaa Xaa Xaa Xaa Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Xaa Tyr Xaa Xaa Xaa Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 98
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (41)..(45)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (65)..(67)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature

<222> (69)..(69)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (73)..(73)
<223> Xaa can be any naturally occurring amino acid

<400> 98

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20   25   30

Thr Cys Val Val Val Asp Val Ser Xaa Xaa Xaa Xaa Xaa Val Lys Phe
        35   40   45

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

Xaa Xaa Xaa Gln Xaa Asn Ser Thr Xaa Arg Val Val Ser Val Leu Thr
65   70   75   80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85   90   95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100   105   110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115   120   125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130   135   140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145   150   155   160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165   170   175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180   185   190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195   200   205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210   215   220

<210> 99
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (45)..(45)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (47)..(47)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (49)..(49)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (95)..(95)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (97)..(97)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (99)..(99)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (102)..(104)

<223> Xaa can be any naturally occurring amino acid

<400> 99

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Xaa Val Xaa Phe
        35                  40                  45


Xaa Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Xaa Val
                85                  90                  95


Xaa Asn Xaa Ala Leu Xaa Xaa Xaa Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160


Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190


Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205
```

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 100
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (118)..(120)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (122)..(122)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (210)..(213)
<223> Xaa can be any naturally occurring amino acid

<400> 100

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Xaa Xaa Xaa Val Xaa Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Xaa Xaa Xaa Xaa Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  101
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct


<220>
<221>  misc_feature
<222>  (127)..(129)
<223>  Xaa can be any naturally occurring amino acid

<220>
<221>  misc_feature
<222>  (131)..(134)
<223>  Xaa can be any naturally occurring amino acid

<400>  101
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```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Phe Asp Tyr Val Thr Thr Leu Pro Pro Xaa Xaa
        115                 120                 125

Xaa Glu Xaa Xaa Xaa Xaa Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe Ser Asp Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 102
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (121)..(121)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (206)..(207)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (209)..(209)
<223> Xaa can be any naturally occurring amino acid

<400> 102

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Phe Asp Tyr Xaa Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu Xaa Xaa His
        195                 200                 205

Xaa Gly Phe Ser Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
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<210> 103
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<400> 103

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

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Phe Asp Tyr Val Thr Thr Leu Xaa Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205
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Tyr Gly Phe Ser Asp Xaa Ser Leu Xaa Xaa Xaa Xaa
210 215 220

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<400> 104

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro

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    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Xaa Pro Xaa Phe Asp Tyr Val Thr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Xaa Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
145                 150                 155                 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Xaa Gly Xaa
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
            180                 185                 190

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Gly Phe Ser Asp Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


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<223> Xaa can be any naturally occurring amino acid

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Phe Asp Tyr Val Thr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Xaa Ser Xaa Xaa Gln Pro
145 150 155 160

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
180 185 190

Xaa Xaa Xaa Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Gly Phe Ser Asp Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 106
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<223> Xaa can be any naturally occurring amino acid

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<223> Xaa can be any naturally occurring amino acid

<400> 106

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe

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1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Xaa Gly Xaa Xaa
145                 150                 155                 160

Xaa Xaa Xaa Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Xaa Lys Ser Xaa Trp Gln Gln
            180                 185                 190

Gly Xaa Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
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<210> 107
<211> 181
<212> PRT
<213> Homo sapiens

<400> 107

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Asn Ser Val Ile Ile Val Asp Lys Asn Gly Arg Leu Val Tyr Leu Val
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Glu Asn Pro Gly Gly Tyr Val Ala Tyr Ser Lys Ala Ala Thr Val Thr
            20                  25                  30


Gly Lys Leu Val His Ala Asn Phe Gly Thr Lys Lys Asp Phe Glu Asp
        35                  40                  45


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


Ile Thr Phe Ala Glu Lys Val Ala Asn Ala Glu Ser Leu Asn Ala Ile
65                  70                  75                  80


Gly Val Leu Ile Tyr Met Asp Gln Thr Lys Phe Pro Ile Val Asn Ala
                85                  90                  95


Glu Leu Ser Phe Phe Gly His Ala His Leu Gly Thr Gly Asp Pro Tyr
            100                 105                 110


Thr Pro Gly Phe Pro Ser Phe Asn His Thr Gln Phe Pro Pro Ser Arg
        115                 120                 125


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


Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp Cys Pro Ser Asp Trp
145                 150                 155                 160


Lys Thr Asp Ser Thr Cys Arg Met Val Thr Ser Glu Ser Lys Asn Val
                165                 170                 175


Lys Leu Thr Val Ser
            180
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<210> 108
<211> 181
<212> PRT
<213> Macaca fascicularis

<400> 108

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Asn Ser Val Ile Ile Val Asp Lys Asn Gly Gly Leu Val Tyr Leu Val
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Glu Asn Pro Gly Gly Tyr Val Ala Tyr Ser Lys Ala Ala Thr Val Thr
            20                  25                  30


Gly Lys Leu Val His Ala Asn Phe Gly Thr Lys Lys Asp Phe Glu Asp
        35                  40                  45


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


Ile Thr Phe Ala Glu Lys Val Ala Asn Ala Glu Ser Leu Asn Ala Ile
65                  70                  75                  80


Gly Val Leu Ile Tyr Met Asp Gln Thr Lys Phe Pro Ile Val Lys Ala
                85                  90                  95


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


Thr Pro Gly Phe Pro Ser Phe Asn His Thr Gln Phe Pro Pro Ser Gln
        115                 120                 125


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


Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp Cys Pro Ser Asp Trp
145                 150                 155                 160


Lys Thr Asp Ser Thr Cys Lys Met Val Thr Ser Glu Asn Lys Ser Val
                165                 170                 175


Lys Leu Thr Val Ser
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180

<210> 109
<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 109

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

Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp Cys Pro Ser Asp Trp
20 25 30

Lys Thr Asp Ser Thr Cys Arg Met Val Thr Ser Glu Ser Lys Asn Val
35 40 45

Lys Leu Thr Val Ser Asn Asp Ser Ala Gln Asn Ser Val Ile Ile Val
50 55 60

Asp Lys Asn Gly Arg Leu Val Tyr Leu Val Glu Asn Pro Gly Gly Tyr
65 70 75 80

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

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

Gly Ser Ile Val Ile Val Arg Ala Gly Lys Ile Thr Phe Ala Glu Lys
115 120 125

Val Ala Asn Ala Glu Ser Leu Asn Ala Ile Gly Val Leu Ile Tyr Met
130 135 140

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

<210> 110

<211> 159
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 110

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

Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp Cys Pro Ser Asp Trp
20 25 30

Lys Thr Asp Ser Thr Cys Lys Met Val Thr Ser Glu Asn Lys Ser Val
35 40 45

Lys Leu Thr Val Ser Asn Asp Ser Ala Gln Asn Ser Val Ile Ile Val
50 55 60

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

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

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

Gly Ser Ile Val Ile Val Arg Ala Gly Lys Ile Thr Phe Ala Glu Lys
115 120 125

Val Ala Asn Ala Glu Ser Leu Asn Ala Ile Gly Val Leu Ile Tyr Met
130 135 140

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

<210> 111
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<222> (4)..(4)
<223> Xaa can be any naturally occurring amino acid

<400> 111

Val Pro Pro Xaa Met
1   5

<210> 112
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 112

Ser Leu Thr Ser
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<210> 113
<211> 12
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<223> Xaa can be any naturally occurring amino acid

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<400> 113

Trp Glu Ser Xaa Gly Xaa Xaa Xaa Xaa Xaa Tyr Lys
1   5   10

<210> 114
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<400> 114

Thr Val Xaa Lys Ser Xaa Trp Gln Gln Gly Xaa Val
1 5 10

<210> 115
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<400> 115

Tyr Gly Thr Glu Trp
1 5

<210> 116
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<400> 116

Leu Gly Leu Val Trp Val Gly
1 5

<210> 117
<211> 7
<212> PRT
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<400> 117

Tyr Gly Thr Val Trp Ser His
1 5

<210> 118
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<400> 118

Tyr Gly Thr Glu Trp Ser Gln
1 5

<210> 119
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<400> 119

Val Gly Thr Pro Trp Ala Leu
1 5

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<400> 120

Tyr Gly Thr Val Trp Ser Lys
1 5

<210> 121
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<400> 121

Leu Gly His Val Trp Ala Val
1 5

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<400> 122

Met Gly His Val Trp Val Gly
1 5

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<400> 123

Leu Gly Leu Val Gly Val Phe
1 5

<210> 124
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<400> 124

Tyr Gly Thr Glu Trp Ser Ser
1 5

<210> 125
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<400> 125

Tyr Gly Thr Glu Trp Ser Asn
1 5

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<400> 126

Leu Gly His Val Trp Val Gly
1 5

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<400> 127

Leu Gly His Val Trp Val Ala
1 5

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<400> 128

Leu Gly Pro Val Trp Val His
1   5

<210> 129
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<400> 129

Leu Gly His Val Trp Val Asp
1   5

<210> 130
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<400> 130

Leu Gly His Val Trp Val Asn
1   5

<210> 131
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<400> 131

Ala Lys Ser Thr Trp Gln Gln Gly Trp
1   5

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Ser Lys Ser Glu Trp Gln Gln Gly Tyr
1   5

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Glu Lys Ser Asp Trp Gln Gln Gly His
1   5

<210> 134
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Leu Lys Ser Glu Trp Gln Gln Gly Trp
1   5

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<400> 135

Ser Lys Ser Glu Trp Gln Gln Gly Phe
1   5

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Pro Lys Ser Thr Trp Gln Gln Gly Trp
1 5

<210> 137
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<400> 137

Asp Lys Ser Thr Trp Gln Gln Gly Trp
1 5

<210> 138
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<400> 138

Thr Lys Ser Glu Trp Gln Gln Gly Phe
1 5

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<400> 139

Ser Lys Ser Glu Trp Gln Gln Gly Trp
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<400> 140

Phe Asp Tyr Val Thr
1 5

<210> 141
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<400> 141

Phe Asp Met Val Thr
1 5

<210> 142
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<400> 142

Phe Glu Tyr Val Thr
1 5

<210> 143
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<400> 143

Phe Glu Met Val Thr
1   5

<210> 144
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<400> 144

Phe Glu Leu Val Thr
1   5

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<400> 145

Phe Glu Ile Val Thr
1   5

<210> 146
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<400> 146

Phe Asp Ile Val Thr
1   5

<210> 147
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<400> 147

Phe Gly Met Val Thr
1 5

<210> 148
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<400> 148

Phe Ala Asp Val Thr
1 5

<210> 149
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Phe Gly Leu Val Thr
1 5

<210> 150
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<400> 150

Ile Asp Tyr Val Thr
1 5

<210> 151
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<400> 151

Phe Lys Asp Val Thr
1   5

<210> 152
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<400> 152

Phe Asp Leu Val Thr
1   5

<210> 153
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<400> 153

Phe Glu Leu Val Ala
1   5

<210> 154
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<400> 154

Gly His Phe Asp
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<210> 155
<211> 4
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<400> 155

Gly Phe Tyr Asp
1

<210> 156
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Gly Phe Ser Asp
1

<210> 157
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Gly Phe Phe Asp
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<210> 158
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<400> 158

Glu Phe Ile
1

<210> 159
<211> 3

<212> PRT
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<400> 159

Gly Phe Val
1

<210> 160
<211> 3
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<400> 160

Gln Phe Asp
1

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<400> 161

Ser Phe Glu
1

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<400> 162

Ala Phe Thr
1

<210> 163
<211> 3
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<400> 163

Asn Phe Asp
1

<210> 164
<211> 3
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<220>
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<400> 164

Gln Phe Val
1

<210> 165
<211> 3
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<400> 165

Gly Phe Ala
1

<210> 166
<211> 3
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<400> 166

Ser Phe Asp
1

<210> 167
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<400> 167

Glu Phe Thr
1

<210> 168
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Gln Phe Thr
1

<210> 169
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<400> 169

Gln Phe Tyr
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<400> 170

Tyr Phe Asp
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<210> 171
<211> 3
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<400> 171

Trp Phe Glu
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<210> 172
<211> 8
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<220>
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<400> 172

Asp Val Arg Tyr Glu Trp Gln Leu
1 5

<210> 173
<211> 8
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<220>
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<400> 173

Pro Val Ser Trp Glu Trp Tyr Trp
1 5

<210> 174
<211> 8
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<220>
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<400> 174

Met Val Arg Arg Glu Trp His Arg
1 5

<210> 175
<211> 8
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<220>
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<400> 175

Pro Val Arg Trp Glu Trp Gln Trp
1 5

<210> 176
<211> 8
<212> PRT
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<220>
<223> Synthetic construct

<400> 176

Pro Val Arg Trp Glu Trp Gln Asn
1 5

<210> 177
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<220>
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<400> 177

Leu Val Arg Arg Glu Trp His Arg
1 5

<210> 178
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<220>

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<400> 178

Ala Val Arg Trp Glu Trp Ile Arg
1 5

<210> 179
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<400> 179

Glu Val Ala Trp Glu Trp Phe Trp
1 5

<210> 180
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<400> 180

Asn Val Arg Val Glu Trp Gln Tyr
1 5

<210> 181
<211> 8
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<400> 181

Glu Val Arg Arg Glu Trp Val Arg
1 5

<210> 182
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<213> Artificial Sequence

<220>
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<400> 182

Leu Val Arg Arg Glu Trp Gln Arg
1   5

<210> 183
<211> 8
<212> PRT
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<220>
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<400> 183

Asp Val Arg Tyr Glu Trp Tyr Tyr
1   5

<210> 184
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<400> 184

Asp Val Arg Tyr Glu Trp Val Arg
1   5

<210> 185
<211> 8
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<220>
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<400> 185

Asn Val Arg Arg Glu Trp His Arg
1   5

<210> 186
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<220>
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<400> 186

Phe Val Gly Val Ala Tyr Asp Val
1   5

<210> 187
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<220>
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<400> 187

Pro Gln Thr Pro Pro Trp
1   5

<210> 188
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<220>
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<400> 188

Pro Pro Ser Pro Pro Trp
1   5

<210> 189
<211> 6
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<220>
<223> Synthetic construct

<400> 189

Phe Arg Gly Pro Pro Trp
1   5

<210> 190
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<220>
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<400> 190

Pro Gln Thr Val Pro Trp
1   5

<210> 191
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<400> 191

Pro Lys Met Pro Pro Trp
1   5

<210> 192
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<400> 192

Pro Pro Val Pro Pro Trp
1   5

<210> 193
<211> 6
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<400> 193

Pro Ala Phe Pro Pro Trp
1   5

<210> 194
<211> 6
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<220>
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<400> 194

Ala Ile Trp Pro Pro Trp
1   5

<210> 195
<211> 6
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<400> 195

Pro Pro Val Ala Pro Trp
1   5

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<400> 196

Pro Gln Met Pro Pro Gln
1   5

<210> 197
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<220>
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<400> 197

Pro Gln Thr Ala Pro Trp
1   5

<210> 198
<211> 6
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<220>
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<400> 198

Pro Gln Thr Pro Pro Gln
1   5

<210> 199
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<220>
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<400> 199

Pro Arg Val Pro Pro Trp
1   5

<210> 200
<211> 6
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<220>
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<400> 200

Pro Ser Val Pro Pro Trp
1   5

<210> 201
<211> 6
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<220>
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<400> 201

Met Leu Trp Pro Val Pro
1 5

<210> 202
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<220>
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<400> 202

Met Glu Trp Pro Val Thr
1 5

<210> 203
<211> 6
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<213> Artificial Sequence

<220>
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<400> 203

Asp Asp Leu Thr Phe Gln
1 5

<210> 204
<211> 6
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<213> Artificial Sequence

<220>
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<400> 204

Ala Tyr Gly Asp Pro Glu
1 5

<210> 205
<211> 5
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 205

Glu Tyr Tyr Thr Tyr
1 5

<210> 206
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 206

Glu Tyr Tyr Ser Asn
1 5

<210> 207
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 207

Glu Tyr Tyr His Asp
1 5

<210> 208
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 208

Glu Tyr Tyr Gln Asn
1 5

<210> 209
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 209

Glu Tyr Tyr Ser Ser
1   5

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

<220>
<223> Synthetic construct

<400> 210

Val Tyr His Arg Pro
1   5

<210> 211
<211> 5
<212> PRT
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<220>
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<400> 211

Thr Tyr His Asn Pro
1   5

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

<220>
<223> Synthetic construct

<400> 212

Thr Tyr His His Pro
1   5

<210> 213
<211> 5

<212> PRT
<213> Artificial Sequence

<220>
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<400> 213

Val Tyr Val Thr Pro
1   5

<210> 214
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 214

Leu Tyr Val Thr Pro
1   5

<210> 215
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 215

Trp Tyr Asp Val Pro
1   5

<210> 216
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 216

Val Pro Pro Arg Met
1   5

<210> 217
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 217

Val Pro Pro Trp Met
1   5

<210> 218
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 218

Asp Met Trp Glu Tyr
1   5

<210> 219
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 219

Asp Asp Trp Thr Trp
1   5

<210> 220
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 220

Asp Asp Trp Glu Trp
1   5

<210> 221
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 221

Leu Thr Ser Gln His Asn Ser Thr Val
1 5

<210> 222
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 222

Trp Val Lys Gln Leu Asn Ser Thr Trp
1 5

<210> 223
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 223

Trp Ile Ala Gln Pro Asn Ser Thr Trp
1 5

<210> 224
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 224

Trp Lys Leu Gln Leu Asn Ser Thr Trp
1 5

<210> 225
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 225

Trp Val Trp Phe Tyr
1 5

<210> 226
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 226

Val Val Gly Phe Arg
1 5

<210> 227
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 227

Ile Val Gly Phe Arg
1 5

<210> 228
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 228

Ala Val Gly Phe Glu
1 5

<210> 229
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 229

Ser Val Val Asn Ile Ala Leu Trp Trp Ser
1 5 10

<210> 230
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 230

Arg Val Ser Asn Ser Ala Leu Thr Trp Lys
1 5 10

<210> 231
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 231

Arg Val Ser Asn Ser Ala Leu Ser Trp Arg
1 5 10

<210> 232
<211> 10
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 232

Arg Val Ser Asn Ser Ala Leu Arg Trp Arg
1   5   10

<210> 233
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 233

Gln Val Phe Asn Trp Ala Leu Asp Trp Val
1   5   10

<210> 234
<211> 15
<212> PRT
<213> Homo sapiens

<400> 234

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
1   5   10   15

<210> 235
<211> 760
<212> PRT
<213> Homo sapiens

<400> 235

Met Met Asp Gln Ala Arg Ser Ala Phe Ser Asn Leu Phe Gly Gly Glu
1   5   10   15

Pro Leu Ser Tyr Thr Arg Phe Ser Leu Ala Arg Gln Val Asp Gly Asp
            20   25   30

Asn Ser His Val Glu Met Lys Leu Ala Val Asp Glu Glu Glu Asn Ala
        35   40   45

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

```
Ser Ile Cys Tyr Gly Thr Ile Ala Val Ile Val Phe Phe Leu Ile Gly
65                  70                  75                  80

Phe Met Ile Gly Tyr Leu Gly Tyr Cys Lys Gly Val Glu Pro Lys Thr
                85                  90                  95

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

Gly Glu Asp Phe Pro Ala Ala Arg Arg Leu Tyr Trp Asp Asp Leu Lys
        115                 120                 125

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

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

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

Lys Leu Ser Lys Val Trp Arg Asp Gln His Phe Val Lys Ile Gln Val
            180                 185                 190

Lys Asp Ser Ala Gln Asn Ser Val Ile Ile Val Asp Lys Asn Gly Arg
        195                 200                 205

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

Ala Ala Thr Val Thr Gly Lys Leu Val His Ala Asn Phe Gly Thr Lys
225                 230                 235                 240

Lys Asp Phe Glu Asp Leu Tyr Thr Pro Val Asn Gly Ser Ile Val Ile
                245                 250                 255

Val Arg Ala Gly Lys Ile Thr Phe Ala Glu Lys Val Ala Asn Ala Glu
            260                 265                 270
```

```
Ser Leu Asn Ala Ile Gly Val Leu Ile Tyr Met Asp Gln Thr Lys Phe
        275                 280                 285

Pro Ile Val Asn Ala Glu Leu Ser Phe Phe Gly His Ala His Leu Gly
    290                 295                 300

Thr Gly Asp Pro Tyr Thr Pro Gly Phe Pro Ser Phe Asn His Thr Gln
305                 310                 315                 320

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

Ile Ser Arg Ala Ala Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp
            340                 345                 350

Cys Pro Ser Asp Trp Lys Thr Asp Ser Thr Cys Arg Met Val Thr Ser
        355                 360                 365

Glu Ser Lys Asn Val Lys Leu Thr Val Ser Asn Val Leu Lys Glu Ile
    370                 375                 380

Lys Ile Leu Asn Ile Phe Gly Val Ile Lys Gly Phe Val Glu Pro Asp
385                 390                 395                 400

His Tyr Val Val Val Gly Ala Gln Arg Asp Ala Trp Gly Pro Gly Ala
                405                 410                 415

Ala Lys Ser Gly Val Gly Thr Ala Leu Leu Leu Lys Leu Ala Gln Met
            420                 425                 430

Phe Ser Asp Met Val Leu Lys Asp Gly Phe Gln Pro Ser Arg Ser Ile
        435                 440                 445

Ile Phe Ala Ser Trp Ser Ala Gly Asp Phe Gly Ser Val Gly Ala Thr
    450                 455                 460

Glu Trp Leu Glu Gly Tyr Leu Ser Ser Leu His Leu Lys Ala Phe Thr
465                 470                 475                 480

Tyr Ile Asn Leu Asp Lys Ala Val Leu Gly Thr Ser Asn Phe Lys Val
                485                 490                 495
```

```
Ser Ala Ser Pro Leu Leu Tyr Thr Leu Ile Glu Lys Thr Met Gln Asn
            500                 505                 510

Val Lys His Pro Val Thr Gly Gln Phe Leu Tyr Gln Asp Ser Asn Trp
        515                 520                 525

Ala Ser Lys Val Glu Lys Leu Thr Leu Asp Asn Ala Ala Phe Pro Phe
    530                 535                 540

Leu Ala Tyr Ser Gly Ile Pro Ala Val Ser Phe Cys Phe Cys Glu Asp
545                 550                 555                 560

Thr Asp Tyr Pro Tyr Leu Gly Thr Thr Met Asp Thr Tyr Lys Glu Leu
                565                 570                 575

Ile Glu Arg Ile Pro Glu Leu Asn Lys Val Ala Arg Ala Ala Ala Glu
            580                 585                 590

Val Ala Gly Gln Phe Val Ile Lys Leu Thr His Asp Val Glu Leu Asn
        595                 600                 605

Leu Asp Tyr Glu Arg Tyr Asn Ser Gln Leu Leu Ser Phe Val Arg Asp
    610                 615                 620

Leu Asn Gln Tyr Arg Ala Asp Ile Lys Glu Met Gly Leu Ser Leu Gln
625                 630                 635                 640

Trp Leu Tyr Ser Ala Arg Gly Asp Phe Phe Arg Ala Thr Ser Arg Leu
                645                 650                 655

Thr Thr Asp Phe Gly Asn Ala Glu Lys Thr Asp Arg Phe Val Met Lys
            660                 665                 670

Lys Leu Asn Asp Arg Val Met Arg Val Glu Tyr His Phe Leu Ser Pro
        675                 680                 685

Tyr Val Ser Pro Lys Glu Ser Pro Phe Arg His Val Phe Trp Gly Ser
    690                 695                 700
```

```
Gly Ser His Thr Leu Pro Ala Leu Leu Glu Asn Leu Lys Leu Arg Lys
705                 710                 715                 720


Gln Asn Asn Gly Ala Phe Asn Glu Thr Leu Phe Arg Asn Gln Leu Ala
                725                 730                 735


Leu Ala Thr Trp Thr Ile Gln Gly Ala Ala Asn Ala Leu Ser Gly Asp
            740                 745                 750


Val Trp Asp Ile Asp Asn Glu Phe
        755                 760
```

<210> 236
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 236

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110
```

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  237
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  237

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60
```

```
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 238
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 238

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15
```

```
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 239
<211> 220

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 239

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190
```

```
Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  240
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  240

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  241
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  241

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  242
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  242

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Ala Val Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 243
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 243

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Ala Val Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205
```

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 244
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 244

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Tyr Trp Glu Ser Leu Gly His Val
145 150 155 160

Trp Ala Val Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
180 185 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 245
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 245

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160


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


Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190


Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  246
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  246

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60
```

```
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160


Trp Ala Val Tyr Phe Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190


Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  247
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  247

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15
```

```
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Ala Val Tyr His Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 248
<211> 220

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 248

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190
```

```
Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  249
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  249

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  250
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  250

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 251
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 251

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Gly Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 252
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 252

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Trp Val Met His Glu Ala Leu His Asn His
        195                 200                 205
```

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 253
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 253

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

```
Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Trp Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 254
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 254

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110
```

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Thr Cys Trp Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  255
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  255

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60
```

```
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Thr Cys Gly Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 256
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 256

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15
```

```
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Glu Cys Trp Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 257
<211> 220

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 257

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190
```

```
Gly Phe Val Phe Lys Cys Trp Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  258
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  258

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Pro Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Lys Cys Trp Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  259
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  259

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  260
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  260

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Gly Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  261
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct
```

<400> 261

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Thr Cys Trp Val Met His Glu Ala Leu His Asn His
        195                 200                 205
```

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 262
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 262

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Gly Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Thr Cys Trp Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 263
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 263

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Arg Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Thr Cys Gly Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  264
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  264

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60
```

```
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 265
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 265

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15
```

```
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Arg Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 266
<211> 220

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 266

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195   200   205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210   215   220

<210> 267
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 267

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20   25   30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35   40   45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65   70   75   80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85   90   95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100   105   110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115   120   125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130   135   140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  268
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  268

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Val Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  269
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  269

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  270
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct
```

<400> 270

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 271
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 271

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

```
Trp Val Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  272
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  272

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110
```

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  273
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  273

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60
```

```
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 274
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 274

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15
```

```
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 275
<211> 220

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 275

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 276
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 276

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  277
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  277

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Val Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  278
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  278

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  279
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct
```

<400> 279

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205
```

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 280
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 280

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

```
Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  281
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  281

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110
```

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  282
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  282

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60
```

```
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 283
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 283

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15
```

```
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 284
<211> 220

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 284

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 285
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 285

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  286
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  286

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  287
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  287

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  288
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct
```

<400> 288

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205
```

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 289
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 289

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

```
Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  290
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  290

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110
```

```
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  291
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  291

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60
```

```
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 292
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 292

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15
```

```
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 293
<211> 220

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 293

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

```
Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  294
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  294

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  295
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  295

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Val Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  296
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  296

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 297
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 297

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Val Asn Gln Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205
```

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 298
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 298

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145 150 155 160

```
Trp Val Asn Gln Gln Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190


Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 299
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 299

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110
```

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Leu Gly His Val
145 150 155 160

Trp Val Asn Gln Gln Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
180 185 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 300
<211> 760
<212> PRT
<213> Macaca fascicularis

<400> 300

Met Met Asp Gln Ala Arg Ser Ala Phe Ser Asn Leu Phe Gly Gly Glu
1 5 10 15

Pro Leu Ser Tyr Thr Arg Phe Ser Leu Ala Arg Gln Val Asp Gly Asp
20 25 30

Asn Ser His Val Glu Met Lys Leu Gly Val Asp Glu Glu Glu Asn Thr
35 40 45

Asp Asn Asn Thr Lys Ala Asn Gly Thr Lys Pro Lys Arg Cys Gly Gly
50 55 60

Asn Ile Cys Tyr Gly Thr Ile Ala Val Ile Ile Phe Phe Leu Ile Gly
65 70 75 80

```
Phe Met Ile Gly Tyr Leu Gly Tyr Cys Lys Gly Val Glu Pro Lys Thr
                85                  90                  95

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

Glu Glu Asp Phe Pro Ala Ala Pro Arg Leu Tyr Trp Asp Asp Leu Lys
        115                 120                 125

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

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

Lys Asp Glu Asn Leu Ala Leu Tyr Ile Glu Asn Gln Phe Arg Glu Phe
                165                 170                 175

Lys Leu Ser Lys Val Trp Arg Asp Gln His Phe Val Lys Ile Gln Val
            180                 185                 190

Lys Asp Ser Ala Gln Asn Ser Val Ile Ile Val Asp Lys Asn Gly Gly
        195                 200                 205

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

Ala Ala Thr Val Thr Gly Lys Leu Val His Ala Asn Phe Gly Thr Lys
225                 230                 235                 240

Lys Asp Phe Glu Asp Leu Asp Ser Pro Val Asn Gly Ser Ile Val Ile
                245                 250                 255

Val Arg Ala Gly Lys Ile Thr Phe Ala Glu Lys Val Ala Asn Ala Glu
            260                 265                 270

Ser Leu Asn Ala Ile Gly Val Leu Ile Tyr Met Asp Gln Thr Lys Phe
        275                 280                 285

Pro Ile Val Lys Ala Asp Leu Ser Phe Phe Gly His Ala His Leu Gly
```

```
    290                 295                 300

Thr Gly Asp Pro Tyr Thr Pro Gly Phe Pro Ser Phe Asn His Thr Gln
305                 310                 315                 320

Phe Pro Pro Ser Gln Ser Ser Gly Leu Pro Asn Ile Pro Val Gln Thr
                325                 330                 335

Ile Ser Arg Ala Ala Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp
            340                 345                 350

Cys Pro Ser Asp Trp Lys Thr Asp Ser Thr Cys Lys Met Val Thr Ser
        355                 360                 365

Glu Asn Lys Ser Val Lys Leu Thr Val Ser Asn Val Leu Lys Glu Thr
    370                 375                 380

Lys Ile Leu Asn Ile Phe Gly Val Ile Lys Gly Phe Val Glu Pro Asp
385                 390                 395                 400

His Tyr Val Val Val Gly Ala Gln Arg Asp Ala Trp Gly Pro Gly Ala
                405                 410                 415

Ala Lys Ser Ser Val Gly Thr Ala Leu Leu Leu Lys Leu Ala Gln Met
            420                 425                 430

Phe Ser Asp Met Val Leu Lys Asp Gly Phe Gln Pro Ser Arg Ser Ile
        435                 440                 445

Ile Phe Ala Ser Trp Ser Ala Gly Asp Phe Gly Ser Val Gly Ala Thr
    450                 455                 460

Glu Trp Leu Glu Gly Tyr Leu Ser Ser Leu His Leu Lys Ala Phe Thr
465                 470                 475                 480

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

Ser Ala Ser Pro Leu Leu Tyr Thr Leu Ile Glu Lys Thr Met Gln Asp
            500                 505                 510
```

```
Val Lys His Pro Val Thr Gly Arg Ser Leu Tyr Gln Asp Ser Asn Trp
        515                 520                 525

Ala Ser Lys Val Glu Lys Leu Thr Leu Asp Asn Ala Ala Phe Pro Phe
    530                 535                 540

Leu Ala Tyr Ser Gly Ile Pro Ala Val Ser Phe Cys Phe Cys Glu Asp
545                 550                 555                 560

Thr Asp Tyr Pro Tyr Leu Gly Thr Thr Met Asp Thr Tyr Lys Glu Leu
                565                 570                 575

Val Glu Arg Ile Pro Glu Leu Asn Lys Val Ala Arg Ala Ala Ala Glu
            580                 585                 590

Val Ala Gly Gln Phe Val Ile Lys Leu Thr His Asp Thr Glu Leu Asn
        595                 600                 605

Leu Asp Tyr Glu Arg Tyr Asn Ser Gln Leu Leu Leu Phe Leu Arg Asp
    610                 615                 620

Leu Asn Gln Tyr Arg Ala Asp Val Lys Glu Met Gly Leu Ser Leu Gln
625                 630                 635                 640

Trp Leu Tyr Ser Ala Arg Gly Asp Phe Phe Arg Ala Thr Ser Arg Leu
                645                 650                 655

Thr Thr Asp Phe Arg Asn Ala Glu Lys Arg Asp Lys Phe Val Met Lys
            660                 665                 670

Lys Leu Asn Asp Arg Val Met Arg Val Glu Tyr Tyr Phe Leu Ser Pro
        675                 680                 685

Tyr Val Ser Pro Lys Glu Ser Pro Phe Arg His Val Phe Trp Gly Ser
    690                 695                 700

Gly Ser His Thr Leu Ser Ala Leu Leu Glu Ser Leu Lys Leu Arg Arg
705                 710                 715                 720

Gln Asn Asn Ser Ala Phe Asn Glu Thr Leu Phe Arg Asn Gln Leu Ala
```

725 730 735

Leu Ala Thr Trp Thr Ile Gln Gly Ala Ala Asn Ala Leu Ser Gly Asp
740 745 750

Val Trp Asp Ile Asp Asn Glu Phe
755 760

<210> 301
<211> 186
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 301

Met Gly Trp Ser Cys Ile Ile Leu Phe Leu Val Ala Thr Ala Thr Gly
1 5 10 15

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

Ile Ser Arg Ala Ala Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp
35 40 45

Cys Pro Ser Asp Trp Lys Thr Asp Ser Thr Cys Arg Met Val Thr Ser
50 55 60

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

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

Asn Pro Gly Gly Tyr Val Ala Tyr Ser Lys Ala Ala Thr Val Thr Gly
100 105 110

Lys Leu Val His Ala Asn Phe Gly Thr Lys Lys Asp Phe Glu Asp Leu
115 120 125

Tyr Thr Pro Val Asn Gly Ser Ile Val Ile Val Arg Ala Gly Lys Ile

130 135 140

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

Val Leu Ile Tyr Met Asp Gln Thr Lys Phe Pro Ile Val Asn Ala Glu
165 170 175

Leu Ser Ala Ser His His His His His His
180 185

<210> 302
<211> 247
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 302

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

Gly Ser Thr Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
20 25 30

Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
35 40 45

Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val Thr Cys Val Val Val
50 55 60

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

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

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

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu

```
        115                 120                 125

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

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
145                 150                 155                 160

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                165                 170                 175

Ile Ala Val Glu Trp Glu Ser Leu Gly His Val Trp Ala Val Tyr Lys
            180                 185                 190

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

Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln Gly Trp Val Phe Ser
    210                 215                 220

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

Leu Ser Leu Ser Pro Gly Lys
                245
```

<210> 303
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 303

```
Glu Trp Glu Ser Phe Gly Thr Glu Trp Ser Ser
1               5                   10
```

<210> 304
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 304

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Ala Ser
1   5   10

<210> 305
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 305

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Val Ser
1   5   10

<210> 306
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 306

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Ser Ser
1   5   10

<210> 307
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 307

Glu Trp Glu Ser Phe Gly Thr Glu Trp Ala Ser
1   5   10

<210> 308
<211> 11
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 308

Glu Trp Glu Ser Phe Gly Thr Glu Trp Val Ser
1 5 10

<210> 309
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 309

Trp Trp Glu Ser Phe Gly Thr Glu Trp Ser Ser
1 5 10

<210> 310
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 310

Trp Trp Glu Ser Tyr Gly Thr Glu Trp Ala Ser
1 5 10

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

<220>
<223> Synthetic construct

<400> 311

Trp Trp Glu Ser Tyr Gly Thr Glu Trp Val Ser
1 5 10

<210> 312

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

<220>
<223> Synthetic construct

<400> 312

Trp Trp Glu Ser Tyr Gly Thr Glu Trp Ser Ser
1 5 10

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

<220>
<223> Synthetic construct

<400> 313

Trp Trp Glu Ser Phe Gly Thr Glu Trp Ala Ser
1 5 10

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

<220>
<223> Synthetic construct

<400> 314

Trp Trp Glu Ser Phe Gly Thr Glu Trp Val Ser
1 5 10

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

<220>
<223> Synthetic construct

<400> 315

Glu Trp Glu Ser Phe Gly Thr Glu Trp Ser Asn
1 5 10

<210> 316
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 316

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Ala Asn
1   5   10

<210> 317
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 317

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Val Asn
1   5   10

<210> 318
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 318

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Ser Asn
1   5   10

<210> 319
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 319

Glu Trp Glu Ser Phe Gly Thr Glu Trp Ala Asn

1 5 10

<210> 320
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 320

Glu Trp Glu Ser Phe Gly Thr Glu Trp Val Asn
1 5 10

<210> 321
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 321

Trp Trp Glu Ser Phe Gly Thr Glu Trp Ser Asn
1 5 10

<210> 322
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 322

Trp Trp Glu Ser Tyr Gly Thr Glu Trp Ala Asn
1 5 10

<210> 323
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 323

Trp Trp Glu Ser Tyr Gly Thr Glu Trp Val Asn
1 5 10

<210> 324
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 324

Trp Trp Glu Ser Tyr Gly Thr Glu Trp Ser Asn
1 5 10

<210> 325
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 325

Trp Trp Glu Ser Phe Gly Thr Glu Trp Ala Asn
1 5 10

<210> 326
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 326

Trp Trp Glu Ser Phe Gly Thr Glu Trp Val Asn
1 5 10

<210> 327
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 327

Leu Trp Glu Ser Phe Gly Thr Glu Trp Ser Ser
1 5 10

<210> 328
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 328

Leu Trp Glu Ser Tyr Gly Thr Glu Trp Ala Ser
1 5 10

<210> 329
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 329

Leu Trp Glu Ser Tyr Gly Thr Glu Trp Val Ser
1 5 10

<210> 330
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 330

Leu Trp Glu Ser Tyr Gly Thr Glu Trp Ser Ser
1 5 10

<210> 331
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 331

Leu Trp Glu Ser Phe Gly Thr Glu Trp Ala Ser
1   5   10

<210> 332
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 332

Leu Trp Glu Ser Phe Gly Thr Glu Trp Val Ser
1   5   10

<210> 333
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 333

Trp Trp Glu Ser Leu Gly His Val Trp Ala Val
1   5   10

<210> 334
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 334

Glu Trp Glu Ser Leu Gly His Val Trp Ala Val
1   5   10

<210> 335
<211> 11
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 335

Leu Trp Glu Ser Leu Gly His Val Trp Ala Val
1 5 10

<210> 336
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 336

Tyr Trp Glu Ser Leu Gly His Val Trp Ala Val
1 5 10

<210> 337
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 337

Glu Trp Glu Ser Leu Gly Leu Val Trp Val Phe
1 5 10

<210> 338
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 338

Trp Trp Glu Ser Leu Gly His Val Trp Val Asn
1 5 10

<210> 339

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

<220>
<223> Synthetic construct

<400> 339

Glu Trp Glu Ser Leu Gly His Val Trp Val Asn
1 5 10

<210> 340
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 340

Thr Lys Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 341
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 341

Ser Lys Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 342
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 342

Pro Lys Thr Ser Trp Gln Gln Gly Trp
1 5

<210> 343
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 343

Thr Arg Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 344
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 344

Thr Pro Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 345
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 345

Thr Gly Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 346
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature

<222> (3)..(3)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (5)..(6)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (11)..(11)
<223> Xaa can be any naturally occurring amino acid

<400> 346

Thr Val Xaa Lys Xaa Xaa Trp Gln Gln Gly Xaa Val
1 5 10

<210> 347
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 347

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  348
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  348

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  349
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  349

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
```

```
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 350
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 350

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  351
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  351

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 352
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 352

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  353
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  353

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 354
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 354

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
```

195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 355
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 355

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu

145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 356
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 356

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  357
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  357

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  358
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  358

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
```

```
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 359
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 359

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 360
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 360

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 361
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 361

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 362
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 362

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 363
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 363

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
```

195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 364
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 364

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu

145 150 155 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 365
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 365

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  366
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  366

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  367
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  367

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
```

```
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 368
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 368

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  369
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  369

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 370
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 370

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 371
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 371

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 372
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 372

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
```

195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 373
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 373

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu

145 150 155 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 374
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 374

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  375
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  375

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  376
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  376

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
```

```
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 377
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 377

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  378
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  378

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


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 379
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 379

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 380
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 380

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 381
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 381

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
```

195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 382
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 382

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu

145 150 155 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 383
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 383

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  384
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  384

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  385
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  385

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
```

```
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 386
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 386

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 387
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 387

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 388
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 388

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  389
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  389

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 390
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 390

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
```

195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 391
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 391

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu

145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 392
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 392

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 393
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 393

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  394
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  394

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
```

```
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 395
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 395

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 396
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 396

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 397
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 397

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  398
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  398

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 399
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 399

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
```

195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 400
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 400

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu

145 150 155 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 401
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 401

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  402
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  402

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  403
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  403

Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
```

```
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 404
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 404

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  405
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  405

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 406
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 406

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 407
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 407

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 408
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 408

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
```

195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 409
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 409

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu

145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 410
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 410

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  411
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  411

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 412
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 412

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
```

```
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 413
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 413

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175
```

```
Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 414
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 414

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125
```

```
Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 415
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 415

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80
```

```
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 416
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 416

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30
```

```
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 417
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 417

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
```

195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 418
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 418

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu

145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 419
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 419

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala

```
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  420
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  420

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
```

```
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  421
<211>  247
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  421

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
```

```
1               5                   10                  15

Gly Ser Thr Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
            20                  25                  30

Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
        35                  40                  45

Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val Thr Cys Val Val Val
    50                  55                  60

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

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

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

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

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

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys
145                 150                 155                 160

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                165                 170                 175

Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu Trp Ser Ser Tyr Lys
            180                 185                 190

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

Lys Leu Thr Val Thr Lys Ser Glu Trp Gln Gln Gly Phe Val Phe Ser
    210                 215                 220
```

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

Leu Ser Leu Ser Pro Gly Lys
245

<210> 422
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 422

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Trp Gly Phe Val
145                 150                 155                 160


Trp Ser Thr Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Asn Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  423
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  423

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Trp Gly His Val
145                 150                 155                 160

Trp Ser Thr Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Asn Trp Gln Gln
            180                 185                 190

Gly Tyr Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 424
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 424

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

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

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 425
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 425

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145                 150                 155                 160

Trp Val Gly Val Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 426
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 426

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145 150 155 160

Trp Val His Thr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
            180                 185                 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 427
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 427

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Trp Gly Thr Val
145                 150                 155                 160

Trp Gly Thr Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Asn Trp Gln Gln
            180                 185                 190

Gly Tyr Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 428
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 428

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Leu Gly His Val
145 150 155 160

Trp Val Gly Thr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Thr Trp Gln Gln
180 185 190

Gly Trp Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 429
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 429

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220

<210>  430
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 430

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 431
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 431

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 432
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 432

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 433
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 433

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  434
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  434
```

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 435
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 435

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 436
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 436

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  437
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  437

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 438
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 438

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220

<210>  439
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 439

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

```
Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  440
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  440

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


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 441
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 441

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 442
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 442

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 443
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 443

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 444
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 444

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 445
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 445

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  446
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  446

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 447
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 447

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220

<210>  448
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 448

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 449
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 449

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 450
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 450

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 451
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 451

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 452
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 452

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 453
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 453

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 454
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 454

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  455
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  455

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 456
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 456

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220

<210>  457
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 457

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

```
Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  458
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  458

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


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  459
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  459

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


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 460
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 460

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  461
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  461
```

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 462
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 462

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 463
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 463

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 464
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 464

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 465
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 465

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  466
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 466

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190
```

```
Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  467
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  467

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly
    130                 135                 140
```

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 468
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 468

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 469
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 469

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  470
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  470
```

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 471
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 471

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 472
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 472

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  473
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  473

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 474
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 474

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  475
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 475

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 476
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 476

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 477
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 477

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 478
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 478

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 479
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 479

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 480
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 480

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 481
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 481

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 482
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 482

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 483
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 483

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

Pro Pro Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220

<210>  484
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 484

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195   200   205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210   215   220

<210> 485
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 485

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20   25   30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35   40   45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65   70   75   80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85   90   95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100   105   110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115   120   125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130   135   140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 486
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 486

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  487
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  487

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  488
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  488
```

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 489
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 489

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 490
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 490

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  491
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  491

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 492
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 492

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  493
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 493

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 494
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 494

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 495
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 495

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 496
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 496

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 497
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 497

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 498
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 498

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 499
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 499

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  500
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  500

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 501
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 501

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  502
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 502

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 503
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 503

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 504
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 504

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Val Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 505
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 505

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  506
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  506
```

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 507
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 507

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 508
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 508

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  509
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  509

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 510
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 510

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 511
<211> 220
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 511

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 512
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 512

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  513
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  513

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 514
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 514

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  515
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  515
```

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 516
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 516

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 517
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 517

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  518
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  518

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Leu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ala Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 519
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 519

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220

<210>  520
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 520

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 521
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 521

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 522
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 522

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  523
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  523

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 524
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 524

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 525
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 525

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 526
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 526

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  527
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  527

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 528
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 528

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220

<210>  529
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 529

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 530
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 530

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

```
Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 531
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 531

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 532
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 532

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 533
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 533

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 534
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 534

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 535
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 535

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  536
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  536

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 537
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 537

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 538
<211> 220
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 538

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


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


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 539
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 539

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  540
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  540

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


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 541
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 541

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  542
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  542
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```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 543
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 543

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 544
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 544

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  545
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  545

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
```

65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145 150 155 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
165 170 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
180 185 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 546
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 546

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val

```
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Tyr Gly Thr Glu
145                 150                 155                 160

Trp Ala Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Ser Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220

<210>  547
<211>  220
<212>  PRT
```

<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 547

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95


Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110


Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125


Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
    130                 135                 140


Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190
```

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 548
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 548

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
130 135 140

```
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160


Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175


Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190


Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205


Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 549
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 549

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15


Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30


Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45


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


Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80


Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95
```

```
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 550
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 550

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45
```

```
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
    50                  55                  60

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
    130                 135                 140

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Tyr Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220


<210>  551
<211>  220
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  551
```

```
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
1               5                  10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
```

210 215 220

<210> 552
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 552

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

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
20 25 30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65 70 75 80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
85 90 95

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
115 120 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145 150 155 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser

```
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 553
<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 553

```
Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
1               5                   10                  15

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
            20                  25                  30

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
        35                  40                  45

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

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
65                  70                  75                  80

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
                85                  90                  95

Ser Asn Lys Ala Leu Gly Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
            100                 105                 110

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
```

```
        115                 120                 125

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

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Phe Gly Thr Glu
145                 150                 155                 160

Trp Ser Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
                165                 170                 175

Phe Phe Leu Val Ser Lys Leu Thr Val Ser Lys Glu Glu Trp Gln Gln
            180                 185                 190

Gly Phe Val Phe Ser Cys Ser Val Leu His Glu Ala Leu His Ser His
        195                 200                 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
    210                 215                 220
```

<210> 554
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Glu, Leu, Ser, Val, Trp, or Tyr

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa = an aromatic amino acid (e.g., Tyr, Phe, or Trp), Met, Pro, or Val

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa = Thr, Asn, or Val

<220>
<221> MISC_FEATURE

<222> (8)..(8)
<223> Xaa = Glu, Ile, Pro, or Val

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa = an aliphatic amino acid (e.g., Ala, Ile, or Val), Ser, or Thr

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa = Ser, Asn, Arg, or Thr

<400> 554

Xaa Trp Glu Ser Xaa Gly Xaa Xaa Trp Xaa Xaa
1 5 10

<210> 555
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Thr, His, or Ser

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa = Glu, Ser, Asp, Gly, Thr, Pro, Gln, or Arg

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> Xaa = Glu or Arg

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa = Phe, His, Lys, Tyr, or Trp

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa = Ser, Thr, or Trp

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa = Ser, Cys, Pro, Met, or Trp

<400> 555

Xaa Lys Xaa Xaa Trp Gln Gln Gly Xaa Val Phe Xaa Cys Xaa
1 5 10

<210> 556
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> Xaa = Glu, Leu, Ser, Val, Trp, or Tyr

<220>
<221> MISC_FEATURE
<222> (44)..(44)
<223> Xaa = an aromatic amino acid (e.g., Tyr, Phe, or Trp), Met, Pro, or Val

<220>
<221> MISC_FEATURE
<222> (46)..(46)
<223> Xaa = Thr, Asn, or Val

<220>
<221> MISC_FEATURE
<222> (47)..(47)
<223> Xaa = Glu, Ile, Pro, or Val

<220>
<221> MISC_FEATURE
<222> (49)..(49)
<223> Xaa = an aliphatic amino acid (e.g., Ala, Ile, or Val), Ser, or Thr

<220>
<221> MISC_FEATURE
<222> (50)..(50)
<223> Xaa = Ser, Asn, Arg, or Thr

<220>
<221> MISC_FEATURE

<222> (73)..(73)
<223> Xaa = Thr, His, or Ser

<220>
<221> MISC_FEATURE
<222> (75)..(75)
<223> Xaa = Glu, Ser, Asp, Gly, Thr, Pro, Gln, or Arg

<220>
<221> MISC_FEATURE
<222> (76)..(76)
<223> Xaa = Glu or Arg

<220>
<221> MISC_FEATURE
<222> (81)..(81)
<223> Xaa = Phe, His, Lys, Tyr, or Trp

<220>
<221> MISC_FEATURE
<222> (84)..(84)
<223> Xaa = Ser, Thr, or Trp

<220>
<221> MISC_FEATURE
<222> (86)..(86)
<223> Xaa = Ser, Cys, Pro, Met, or Trp

<400> 556

```
Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1               5                   10                  15


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


Tyr Pro Ser Asp Ile Ala Val Xaa Trp Glu Ser Xaa Gly Xaa Xaa Trp
        35                  40                  45


Xaa Xaa Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    50                  55                  60


Phe Leu Tyr Ser Lys Leu Thr Val Xaa Lys Xaa Xaa Trp Gln Gln Gly
65                  70                  75                  80


Xaa Val Phe Xaa Cys Xaa Val Met His Glu Ala Leu His Asn His Tyr
                85                  90                  95
```

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
100 105

<210> 557
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Glu, Leu, or Trp

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa = an aromatic amino acid (e.g., Tyr or Phe)

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa = an aliphatic amino acid (e.g., Ala or Val) or Ser

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa = Ser or Asn

<400> 557

Xaa Trp Glu Ser Xaa Gly Thr Glu Trp Xaa Xaa
1 5 10

<210> 558
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Thr or Ser

<220>

<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa = Glu or Ser

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa = Phe, His, Tyr, or Trp

<400> 558

Xaa Lys Xaa Glu Trp Gln Gln Gly Xaa Val Phe Ser Cys Ser
1 5 10

<210> 559
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> Xaa = Glu, Leu, or Trp

<220>
<221> MISC_FEATURE
<222> (44)..(44)
<223> Xaa = an aromatic amino acid (e.g., Tyr or Phe)

<220>
<221> MISC_FEATURE
<222> (49)..(49)
<223> Xaa = an aliphatic amino acid (e.g., Ala or Val) or Ser

<220>
<221> MISC_FEATURE
<222> (50)..(50)
<223> Xaa = Ser or Asn

<220>
<221> MISC_FEATURE
<222> (73)..(73)
<223> Xaa = Thr or Ser

<220>
<221> MISC_FEATURE
<222> (75)..(75)
<223> Xaa = Glu or Ser

<220>
<221> MISC_FEATURE
<222> (81)..(81)
<223> Xaa = Phe, His, Tyr, or Trp

<400> 559

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1 5 10 15

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

Tyr Pro Ser Asp Ile Ala Val Xaa Trp Glu Ser Xaa Gly Thr Glu Trp
35 40 45

Xaa Xaa Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
50 55 60

Phe Leu Tyr Ser Lys Leu Thr Val Xaa Lys Xaa Glu Trp Gln Gln Gly
65 70 75 80

Xaa Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
85 90 95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
100 105

<210> 560
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Glu, Leu, or Trp

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa = Tyr or Phe

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa = Ser, Ala or Val

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa = Ser or Asn

<400> 560

Xaa Trp Glu Ser Xaa Gly Thr Glu Trp Xaa Xaa
1   5   10

<210> 561
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<222> (1)..(1)
<223> Xaa = Thr or Ser

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<222> (3)..(3)
<223> Xaa = Glu or Ser

<400> 561

Xaa Lys Xaa Glu Trp Gln Gln Gly Phe Val Phe Ser Cys Ser
1   5   10

<210> 562
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
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<222> (40)..(40)
<223> Xaa = Glu, Leu, or Trp

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<221> MISC_FEATURE
<222> (44)..(44)
<223> Xaa = Tyr or Phe

<220>
<221> MISC_FEATURE
<222> (49)..(49)
<223> Xaa = Ser, Ala or Val

<220>
<221> MISC_FEATURE
<222> (50)..(50)
<223> Xaa = Ser or Asn

<220>
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<222> (73)..(73)
<223> Xaa = Thr or Ser

<220>
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<222> (75)..(75)
<223> Xaa = Glu or Ser

<400> 562

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1   5   10   15

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

Tyr Pro Ser Asp Ile Ala Val Xaa Trp Glu Ser Xaa Gly Thr Glu Trp
        35   40   45

Xaa Xaa Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    50   55   60

Phe Leu Tyr Ser Lys Leu Thr Val Xaa Lys Xaa Glu Trp Gln Gln Gly
65   70   75   80

Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85   90   95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100   105

<210> 563
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (40)..(40)
<223> Xaa = Glu, Leu, Ser, Val, Trp, or Tyr

<400> 563

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1 5 10 15

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

Tyr Pro Ser Asp Ile Ala Val Xaa Trp Glu Ser Tyr Gly Thr Glu Trp
35 40 45

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

Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65 70 75 80

Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
85 90 95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
100 105

<210> 564
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (44)..(44)
<223> Xaa = Tyr, Phe, Met, Pro, Val, or Trp

<400> 564

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1   5   10   15

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

Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Xaa Gly Thr Glu Trp
        35   40   45

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

Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65   70   75   80

Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85   90   95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100   105

<210> 565
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (46)..(46)
<223> Xaa = Thr, Asn, or Val

<400> 565

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1   5   10   15

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


Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Xaa Glu Trp
        35                  40                  45


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


Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65                  70                  75                  80


Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85                  90                  95


Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100                 105


<210>  566
<211>  107
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct


<220>
<221>  MISC_FEATURE
<222>  (47)..(47)
<223>  Xaa = Glu, Ile, Pro, or Val

<400>  566

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1               5                   10                  15


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


Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Xaa Trp
        35                  40                  45
```

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

Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65   70   75   80

Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85   90   95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100   105

<210> 567
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (49)..(49)
<223> Xaa = Ser, Ala, Ile, Thr, or Val

<400> 567

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1   5   10   15

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

Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu Trp
        35   40   45

Xaa Ser Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    50   55   60

Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65   70   75   80

Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85   90   95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
100 105

<210> 568
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (50)..(50)
<223> Xaa = Ser, Asn, Arg, or Thr

<400> 568

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1 5 10 15

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

Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu Trp
35 40 45

Ser Xaa Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
50 55 60

Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65 70 75 80

Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
85 90 95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
100 105

<210> 569
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (73)..(73)
<223> Xaa = Thr, His, or Ser

<400> 569

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1   5   10   15

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

Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu Trp
        35   40   45

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

Phe Leu Tyr Ser Lys Leu Thr Val Xaa Lys Glu Glu Trp Gln Gln Gly
65   70   75   80

Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85   90   95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100   105

<210> 570
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (75)..(75)
<223> Xaa = Glu, Ser, Asp, Gly, Thr, Pro, Gln, or Arg

<400> 570

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1   5   10   15

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

Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu Trp
        35   40   45

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

Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Xaa Glu Trp Gln Gln Gly
65   70   75   80

Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85   90   95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100   105

<210> 571
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (76)..(76)
<223> Xaa = Glu or Arg

<400> 571

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1   5   10   15

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

```
Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu Trp
        35                  40                  45


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


Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Xaa Trp Gln Gln Gly
65                  70                  75                  80


Phe Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85                  90                  95


Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100                 105


<210>  572
<211>  107
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct


<220>
<221>  MISC_FEATURE
<222>  (81)..(81)
<223>  Xaa = Phe, His, Lys, or Tyr

<400>  572

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1               5                   10                  15


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


Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu Trp
        35                  40                  45


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


Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65                  70                  75                  80
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```
Xaa Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85                  90                  95


Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100                 105


<210>  573
<211>  107
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct


<220>
<221>  MISC_FEATURE
<222>  (84)..(84)
<223>  Xaa = Ser, Thr, or Trp

<400>  573

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1               5                   10                  15


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


Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu Trp
        35                  40                  45


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


Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65                  70                  75                  80


Phe Val Phe Xaa Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85                  90                  95


Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100                 105
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<210> 574
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (86)..(86)
<223> Xaa = Ser, Cys, Pro, Met, or Trp

<400> 574

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1 5 10 15

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

Tyr Pro Ser Asp Ile Ala Val Trp Trp Glu Ser Tyr Gly Thr Glu Trp
35 40 45

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

Phe Leu Tyr Ser Lys Leu Thr Val Thr Lys Glu Glu Trp Gln Gln Gly
65 70 75 80

Phe Val Phe Ser Cys Xaa Val Met His Glu Ala Leu His Asn His Tyr
85 90 95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
100 105

<210> 575
<211> 12
<212> PRT
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<220>
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<220>

<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Glu or Trp

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<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa = Val, Trp, Leu, or Tyr

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa = Leu, Pro, Phe, Thr, or His

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa = Pro, Val, or Glu

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa = Ala, Ser, Val, or Gly

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa = Leu, His, Gln, Gly, Val, Ala, Asn, Asp, Thr, or Glu

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa = Thr, Phe, Gln, Val, or Tyr

<400> 575

Xaa Trp Glu Ser Xaa Gly Xaa Xaa Trp Xaa Xaa Xaa
1 5 10

<210> 576
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
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<222> (1)..(1)
<223> Xaa = Leu, Ser, Glu, Ala, or Pro

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> Xaa = Glu, Asp, Thr, or Asn

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa = Trp, Tyr, His, or Phe

<400> 576

Xaa Lys Ser Xaa Trp Gln Gln Gly Xaa
1   5

<210> 577
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
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<222> (40)..(40)
<223> Xaa = Glu or Trp

<220>
<221> MISC_FEATURE
<222> (44)..(44)
<223> Xaa = Val, Trp, Leu, or Tyr

<220>
<221> MISC_FEATURE
<222> (46)..(46)
<223> Xaa = Leu, Pro, Phe, Thr, or His

<220>
<221> MISC_FEATURE
<222> (47)..(47)
<223> Xaa = Pro, Val, or Glu

<220>
<221> MISC_FEATURE
<222> (49)..(49)
<223> Xaa = Ala, Ser, Val, or Gly

<220>
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<222> (50)..(50)
<223> Xaa = Leu, His, Gln, Gly, Val, Ala, Asn, Asp, Thr, or Glu

<220>
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<222> (51)..(51)
<223> Xaa = Thr, Phe, Gln, Val, or Tyr

<220>
<221> MISC_FEATURE
<222> (73)..(73)
<223> Xaa = Leu, Ser, Glu, Ala, or Pro

<220>
<221> MISC_FEATURE
<222> (76)..(76)
<223> Xaa = Glu, Asp, Thr, or Asn

<220>
<221> MISC_FEATURE
<222> (81)..(81)
<223> Xaa = Trp, Tyr, His, or Phe

<400> 577

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Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1               5                   10                  15


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


Tyr Pro Ser Asp Ile Ala Val Xaa Trp Glu Ser Xaa Gly Xaa Xaa Trp
        35                  40                  45


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


Phe Leu Tyr Ser Lys Leu Thr Val Xaa Lys Ser Xaa Trp Gln Gln Gly
65                  70                  75                  80


Xaa Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                85                  90                  95


Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            100                 105
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<210> 578
<211> 12
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Glu or Trp

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa = Trp, Leu, or Tyr

<220>
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<222> (7)..(7)
<223> Xaa = Thr or His

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa = Ala, Ser, or Val

<220>
<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa = Val, Thr, or Asn

<220>
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<222> (12)..(12)
<223> Xaa = Tyr or Gln

<400> 578

Xaa Trp Glu Ser Xaa Gly Xaa Val Trp Xaa Xaa Xaa
1 5 10

<210> 579
<211> 9
<212> PRT
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<220>
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<220>
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<222> (4)..(4)

<223> Xaa = Thr or Asn

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa = Trp, Tyr, His, or Phe

<400> 579

Pro Lys Ser Xaa Trp Gln Gln Gly Xaa
1   5

<210> 580
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<222> (40)..(40)
<223> Xaa = Glu or Trp

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<222> (44)..(44)
<223> Xaa = Trp, Leu, or Tyr

<220>
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<222> (46)..(46)
<223> Xaa = Thr or His

<220>
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<222> (49)..(49)
<223> Xaa = Ala, Ser, or Val

<220>
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<222> (50)..(50)
<223> Xaa = Val, Thr, or Asn

<220>
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<222> (51)..(51)
<223> Xaa = Tyr or Gln

<220>
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<222> (76)..(76)
<223> Xaa = Thr or Asn

<220>
<221> MISC_FEATURE
<222> (81)..(81)
<223> Xaa = Trp, Tyr, His, or Phe

<400> 580

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp
1 5 10 15

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

Tyr Pro Ser Asp Ile Ala Val Xaa Trp Glu Ser Xaa Gly Xaa Val Trp
35 40 45

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

Phe Leu Tyr Ser Lys Leu Thr Val Pro Lys Ser Xaa Trp Gln Gln Gly
65 70 75 80

Xaa Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
85 90 95

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
100 105

<210> 581
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 581

Glu Trp Glu Ser Phe Gly Thr Glu Trp Ser Ser
1 5 10

<210> 582
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 582

Ser Lys Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 583
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 583

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Ala Asn
1 5 10

<210> 584
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 584

Ser Lys Ser Glu Trp Gln Gln Gly Phe
1 5

<210> 585
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 585

Glu Trp Glu Ser Phe Gly Thr Glu Trp Ser Asn
1 5 10

<210> 586
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 586

Ser Lys Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 587
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 587

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Ser Ser
1 5 10

<210> 588
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 588

Ser Lys Ser Glu Trp Gln Gln Gly Phe
1 5

<210> 589
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 589

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Val Asn
1 5 10

<210> 590
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 590

Ser Lys Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 591
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 591

Glu Trp Glu Ser Tyr Gly Thr Glu Trp Ser Asn
1 5 10

<210> 592
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 592

Ser Lys Ser Glu Trp Gln Gln Gly Phe
1 5

<210> 593
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 593

Glu Trp Glu Ser Phe Gly Thr Glu Trp Val Asn
1 5 10

<210> 594
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 594

Ser Lys Glu Glu Trp Gln Gln Gly Phe
1 5

<210> 595
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 595

Trp Gly Phe Val Trp Ser Thr Tyr
1 5

<210> 596
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 596

Pro Lys Ser Asn Trp Gln Gln Gly Phe
1 5

<210> 597
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 597

Trp Gly His Val Trp Ser Thr Tyr
1 5

<210> 598
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 598

Pro Lys Ser Asn Trp Gln Gln Gly Tyr
1 5

<210> 599
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 599

Leu Gly His Val Trp Val Glu Gln
1 5

<210> 600
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 600

Pro Lys Ser Thr Trp Gln Gln Gly Trp
1 5

<210> 601
<211> 8
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 601

Leu Gly His Val Trp Val Gly Val
1   5

<210> 602
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 602

Pro Lys Ser Thr Trp Gln Gln Gly Trp
1   5

<210> 603
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 603

Leu Gly His Val Trp Val His Thr
1   5

<210> 604
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 604

Pro Lys Ser Thr Trp Gln Gln Gly Trp
1   5

<210> 605
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 605

Trp Gly Thr Val Trp Gly Thr Tyr
1   5

<210> 606
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 606

Pro Lys Ser Asn Trp Gln Gln Gly Tyr
1   5

<210> 607
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 607

Leu Gly His Val Trp Val Gly Thr
1   5

<210> 608
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 608

Pro Lys Ser Thr Trp Gln Gln Gly Trp
1   5

<210> 609
<211> 11

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Glu, Leu, Ser, Val, Trp, or Tyr

<400> 609

Xaa Trp Glu Ser Tyr Gly Thr Glu Trp Ser Ser
1   5   10

<210> 610
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (5)..(5)
<223> Xaa = Tyr, Phe, Met, Pro, Val, or Trp

<400> 610

Trp Trp Glu Ser Xaa Gly Thr Glu Trp Ser Ser
1   5   10

<210> 611
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (7)..(7)
<223> Xaa = Thr, Asn, or Val

<400> 611

Trp Trp Glu Ser Tyr Gly Xaa Glu Trp Ser Ser
1 5 10

<210> 612
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (8)..(8)
<223> Xaa = Glu, Ile, Pro, or Val

<400> 612

Trp Trp Glu Ser Tyr Gly Thr Xaa Trp Ser Ser
1 5 10

<210> 613
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (10)..(10)
<223> Xaa = Ser, Ala, Ile, Thr, or Val

<400> 613

Trp Trp Glu Ser Tyr Gly Thr Glu Trp Xaa Ser
1 5 10

<210> 614
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>

<221> MISC_FEATURE
<222> (11)..(11)
<223> Xaa = Ser, Asn, Arg, or Thr

<400> 614

Trp Trp Glu Ser Tyr Gly Thr Glu Trp Ser Xaa
1 5 10

<210> 615
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa = Thr, His, or Ser

<400> 615

Xaa Lys Glu Glu Trp Gln Gln Gly Phe Val Phe Ser Cys Ser
1 5 10

<210> 616
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (3)..(3)
<223> Xaa = Glu, Ser, Asp, Gly, Thr, Pro, Gln, or Arg

<400> 616

Thr Lys Xaa Glu Trp Gln Gln Gly Phe Val Phe Ser Cys Ser
1 5 10

<210> 617
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> Xaa = Glu or Arg

<400> 617

Thr Lys Glu Xaa Trp Gln Gln Gly Phe Val Phe Ser Cys Ser
1   5   10

<210> 618
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa = Phe, His, Lys, or Tyr

<400> 618

Thr Lys Glu Glu Trp Gln Gln Gly Xaa Val Phe Ser Cys Ser
1   5   10

<210> 619
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa = Ser, Thr, or Trp

<400> 619

Thr Lys Glu Glu Trp Gln Gln Gly Phe Val Phe Xaa Cys Ser
1   5   10

<210> 620
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa = Ser, Cys, Pro, Met, or Trp

<400> 620

Thr Lys Glu Glu Trp Gln Gln Gly Phe Val Phe Ser Cys Xaa
1 5 10

<210> 621
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> misc_feature
<222> (2)..(2)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (5)..(5)
<223> Xaa can be any naturally occurring amino acid

<400> 621

Thr Xaa Trp Ser Xaa
1 5

<210> 622
<211> 181
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (97)..(97)
<223> Xaa = Asp or Glu

<400> 622

```
Asn Ser Val Ile Ile Val Asp Lys Asn Gly Arg Leu Val Tyr Leu Val
1               5                   10                  15


Glu Asn Pro Gly Gly Tyr Val Ala Tyr Ser Lys Ala Ala Thr Val Thr
            20                  25                  30


Gly Lys Leu Val His Ala Asn Phe Gly Thr Lys Lys Asp Phe Glu Asp
        35                  40                  45


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


Ile Thr Phe Ala Glu Lys Val Ala Asn Ala Glu Ser Leu Asn Ala Ile
65                  70                  75                  80


Gly Val Leu Ile Tyr Met Asp Gln Thr Lys Phe Pro Ile Val Asn Ala
                85                  90                  95


Xaa Leu Ser Phe Phe Gly His Ala His Leu Gly Thr Gly Asp Pro Tyr
            100                 105                 110


Thr Pro Gly Phe Pro Ser Phe Asn His Thr Gln Phe Pro Pro Ser Arg
        115                 120                 125


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


Ala Glu Lys Leu Phe Gly Asn Met Glu Gly Asp Cys Pro Ser Asp Trp
145                 150                 155                 160


Lys Thr Asp Ser Thr Cys Arg Met Val Thr Ser Glu Asn Lys Asn Val
                165                 170                 175


Lys Leu Thr Val Ser
```

180

<210> 623
<211> 330
<212> PRT
<213> Homo sapiens

<400> 623

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<210> 624
<211> 326
<212> PRT
<213> Homo sapiens

<400> 624

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

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

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

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

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

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

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
        115                 120                 125

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

Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
145                 150                 155                 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
                165                 170                 175

Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp
            180                 185                 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
        195                 200                 205

Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
    210                 215                 220

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

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
```

245 250 255

Ser Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
260 265 270

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

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

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305 310 315 320

Ser Leu Ser Pro Gly Lys
325

<210> 625
<211> 377
<212> PRT
<213> Homo sapiens

<400> 625

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

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

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

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

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

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

```
Arg Val Glu Leu Lys Thr Pro Leu Gly Asp Thr Thr His Thr Cys Pro
            100                 105                 110

Arg Cys Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg
        115                 120                 125

Cys Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys
    130                 135                 140

Pro Glu Pro Lys Ser Cys Asp Thr Pro Pro Pro Cys Pro Arg Cys Pro
145                 150                 155                 160

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
                165                 170                 175

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
            180                 185                 190

Val Val Asp Val Ser His Glu Asp Pro Glu Val Gln Phe Lys Trp Tyr
        195                 200                 205

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

Gln Tyr Asn Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Leu His
225                 230                 235                 240

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
                245                 250                 255

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

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
        275                 280                 285

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
    290                 295                 300

Ser Asp Ile Ala Val Glu Trp Glu Ser Ser Gly Gln Pro Glu Asn Asn
305                 310                 315                 320
```

```
Tyr Asn Thr Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu
                325                 330                 335


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


Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn Arg Phe Thr Gln
        355                 360                 365


Lys Ser Leu Ser Leu Ser Pro Gly Lys
    370                 375
```

<210> 626
<211> 327
<212> PRT
<213> Homo sapiens

<400> 626

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


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


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


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


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


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


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


Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
```

```
        115                 120                 125

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

Asp Val Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp
145                 150                 155                 160

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190

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

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    210                 215                 220

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

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

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

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

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

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

Leu Ser Leu Ser Leu Gly Lys
                325
```