SEQUENCE LISTING

<110> Alector LLC
SCHWABE, Tina
AVOGADRI-CONNORS, Francesca
LAM, Helen
TASSI, Ilaria
LEE, Seung-Joo
ROSENTHAL, Arnon

<120> ANTI-TREM2 ANTIBODIES AND METHODS OF USE
THEREOF

<130> 735022000940

<140> Not Yet Assigned
<141> Concurrently Herewith

<150> US 62/238,044
<151> 2015-10-06

<150> US 62/369,666
<151> 2016-08-01

<160> 888

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 230
<212> PRT
<213> Homo sapiens

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

```
        115                 120                 125
Leu Ala Asp Pro Leu Asp His Arg Asp Ala Gly Asp Leu Trp Phe Pro
    130                 135                 140
Gly Glu Ser Glu Ser Phe Glu Asp Ala His Val Glu His Ser Ile Ser
145                 150                 155                 160
Arg Ser Leu Leu Glu Gly Glu Ile Pro Phe Pro Pro Thr Ser Ile Leu
                165                 170                 175
Leu Leu Leu Ala Cys Ile Phe Leu Ile Lys Ile Leu Ala Ala Ser Ala
            180                 185                 190
Leu Trp Ala Ala Ala Trp His Gly Gln Lys Pro Gly Thr His Pro Pro
        195                 200                 205
Ser Glu Leu Asp Cys Gly His Asp Pro Gly Tyr Gln Leu Gln Thr Leu
    210                 215                 220
Pro Gly Leu Arg Asp Thr
225                 230


<210> 2
<211> 227
<212> PRT
<213> Mus musculus

<400> 2
Met Gly Pro Leu His Gln Phe Leu Leu Leu Leu Ile Thr Ala Leu Ser
 1               5                  10                  15
Gln Ala Leu Asn Thr Thr Val Leu Gln Gly Met Ala Gly Gln Ser Leu
            20                  25                  30
Arg Val Ser Cys Thr Tyr Asp Ala Leu Lys His Trp Gly Arg Arg Lys
        35                  40                  45
Ala Trp Cys Arg Gln Leu Gly Glu Glu Gly Pro Cys Gln Arg Val Val
    50                  55                  60
Ser Thr His Gly Val Trp Leu Leu Ala Phe Leu Lys Lys Arg Asn Gly
65                  70                  75                  80
Ser Thr Val Ile Ala Asp Asp Thr Leu Ala Gly Thr Val Thr Ile Thr
                85                  90                  95
Leu Lys Asn Leu Gln Ala Gly Asp Ala Gly Leu Tyr Gln Cys Gln Ser
            100                 105                 110
Leu Arg Gly Arg Glu Ala Glu Val Leu Gln Lys Val Leu Val Glu Val
        115                 120                 125
Leu Glu Asp Pro Leu Asp Asp Gln Asp Ala Gly Asp Leu Trp Val Pro
    130                 135                 140
Glu Glu Ser Ser Ser Phe Glu Gly Ala Gln Val Glu His Ser Thr Ser
145                 150                 155                 160
Arg Asn Gln Glu Thr Ser Phe Pro Pro Thr Ser Ile Leu Leu Leu Leu
                165                 170                 175
Ala Cys Val Leu Leu Ser Lys Phe Leu Ala Ala Ser Ile Leu Trp Ala
            180                 185                 190
Val Ala Arg Gly Arg Gln Lys Pro Gly Thr Pro Val Val Arg Gly Leu
        195                 200                 205
Asp Cys Gly Gln Asp Ala Gly His Gln Leu Gln Ile Leu Thr Gly Pro
```

210 215 220
Gly Gly Thr
225

<210> 3
<211> 228
<212> PRT
<213> Rattus norvegicus

<400> 3
Met Glu Pro Leu His Val Phe Val Leu Leu Leu Val Thr Glu Leu Ser
1 5 10 15
Gln Ala Leu Asn Thr Thr Val Leu Gln Gly Val Ala Gly Gln Ser Leu
20 25 30
Arg Val Ser Cys Thr Tyr Asp Ala Leu Arg His Trp Gly Arg Arg Lys
35 40 45
Ala Trp Cys Arg Gln Leu Ala Glu Glu Gly Pro Cys Gln Arg Val Val
50 55 60
Ser Thr His Gly Val Trp Leu Leu Ala Phe Leu Arg Lys Gln Asn Gly
65 70 75 80
Ser Thr Val Ile Thr Asp Asp Thr Leu Ala Gly Thr Val Thr Ile Thr
85 90 95
Leu Arg Asn Leu Gln Ala Gly Asp Ala Gly Leu Tyr Gln Cys Gln Ser
100 105 110
Leu Arg Gly Arg Glu Ala Glu Val Leu Gln Lys Val Val Val Glu Val
115 120 125
Leu Glu Asp Pro Leu Asp Asp Gln Asp Ala Gly Asp Leu Trp Val Pro
130 135 140
Glu Glu Ser Glu Ser Phe Glu Gly Ala Gln Val Glu His Ser Thr Ser
145 150 155 160
Ser Gln Val Ser Ser Cys Gly Ser Pro Leu Thr Tyr His Leu Pro Pro
165 170 175
Lys Glu Pro Ile Arg Lys Asp Leu Leu Pro Thr His Phe His Ser Ser
180 185 190
Pro Pro Gly Leu Cys Pro Pro Glu Gln Ala Ser Tyr Ser Gln His Pro
195 200 205
Leu Gly Cys Gly Gln Gly Gln Ala Glu Ala Gly Asp Thr Cys Gly Gln
210 215 220
Trp Ala Arg Leu
225

<210> 4
<211> 260
<212> PRT
<213> Macaca mulatta

<400> 4
Met Pro Asp Pro Leu Phe Ser Ala Val Gln Gly Lys Asp Lys Ile Leu

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


<210> 5
<211> 230
<212> PRT
<213> Bos taurus

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

```
65                  70                  75                  80
Ser Thr Ala Ile Thr Asp Asp Ala Leu Gly Gly Thr Leu Thr Ile Thr
                85                  90                  95
Leu Arg Asn Leu Gln Thr His Asp Ala Gly Leu Tyr Gln Cys Gln Ser
            100                 105                 110
Leu His Gly Ser Glu Ala Asp Thr Leu Arg Lys Val Leu Val Glu Val
        115                 120                 125
Leu Ala Asp Pro Arg Asp Tyr Gln Asp Pro Gly Asp Leu Trp Ile Pro
    130                 135                 140
Glu Gly Ser Glu Ser Phe Glu Asn Ala Gln Val Glu His Ser Ile Ser
145                 150                 155                 160
Arg Ser Leu Ser Glu Glu Glu Ser Pro Phe Pro Pro Thr Ser Ile Leu
                165                 170                 175
Phe Leu Leu Ala Cys Ile Phe Leu Ser Lys Leu Leu Ala Ala Ser Ala
            180                 185                 190
Leu Trp Ala Ala Ala Trp His Gly Gln Lys Gln Arg Pro Pro Gln Ala
        195                 200                 205
Ser Gly Pro Asp Cys Gly His Asn Pro Gly Tyr Gln Leu Gln Thr Leu
    210                 215                 220
Thr Glu Leu Arg Asp Val
225                 230


<210> 6
<211> 230
<212> PRT
<213> Equus caballus

<400> 6
Met Glu Pro Leu Pro Leu Leu Ile Leu Leu Ser Val Ala Glu Leu Ser
 1               5                  10                  15
Arg Gly His Asn Thr Thr Val Phe Gln Gly Thr Ala Gly Arg Ser Leu
            20                  25                  30
Lys Val Ser Cys Pro Tyr Asn Ser Leu Met His Trp Gly Arg Arg Lys
        35                  40                  45
Ala Trp Cys Arg Gln Leu Gly Glu Asp Gly Pro Cys Gln Gln Val Val
    50                  55                  60
Ser Thr His Ser Leu Trp Leu Leu Ser Phe Leu Lys Arg Arg Asn Gly
65                  70                  75                  80
Ser Thr Val Ile Thr Asp Asp Ala Leu Gly Gly Ile Leu Thr Ile Thr
                85                  90                  95
Leu Arg Asn Leu Gln Ala His Asp Ala Gly Phe Tyr Gln Cys Gln Ser
            100                 105                 110
Leu His Gly Gly Glu Ala Asp Thr Leu Arg Lys Val Leu Val Glu Val
        115                 120                 125
Leu Ala Asp Pro Leu Asp His Gln Glu Pro Gly Asp Leu Trp Ile Pro
    130                 135                 140
Lys Glu Ser Glu Ser Phe Glu Asp Ala Gln Val Glu His Ser Ile Ser
145                 150                 155                 160
Arg Ser Leu Val Glu Glu Glu Ile Pro Ser Leu Pro Thr Ser Ile Leu
```

```
                165                 170                 175
Leu Leu Leu Ala Cys Ile Phe Leu Ser Lys Leu Leu Ala Ala Ser Ala
            180                 185                 190
Ile Trp Ala Ala Ala Trp His Gly Gln Lys Gln Glu Thr Pro Pro Ala
        195                 200                 205
Ser Glu Pro Asp Arg Gly His Asp Pro Gly Tyr Gln Leu His Thr Leu
    210                 215                 220
Thr Gly Glu Arg Asp Thr
225                 230


<210> 7
<211> 233
<212> PRT
<213> Sus domesticus

<400> 7
Met Glu Thr Leu Gly Leu Leu Leu Leu Leu Trp Val Ala Glu Leu Ser
 1               5                  10                  15
Arg Ala His Asn Thr Ser Val Phe Gln Gly Thr Ala Gly Gln Ser Leu
            20                  25                  30
Arg Val Ser Cys Ser Tyr Asn Ser Leu Lys His Trp Gly Arg Arg Lys
        35                  40                  45
Ala Trp Cys Arg Gln Leu Ser Glu Glu Gly Leu Cys Gln His Val Val
    50                  55                  60
Ser Thr His Pro Thr Trp Leu Leu Ser Phe Leu Lys Arg Arg Asn Gly
65                  70                  75                  80
Ser Thr Ala Ile Thr Asp Asp Ala Leu Gly Gly Thr Leu Thr Ile Thr
                85                  90                  95
Leu Arg Asn Leu Gln Ala His Asp Ala Gly Leu Tyr Gln Cys Gln Ser
            100                 105                 110
Leu His Gly Ser Glu Ala Asp Thr Leu Lys Lys Val Leu Val Glu Val
        115                 120                 125
Leu Ala Asp Pro Leu Glu Ser Gln Ser Lys Ser Phe Gln Asp Val Gln
    130                 135                 140
Met Glu His Ser Ile Ser Arg Asn Leu Ser Glu Glu Ser Leu Phe Pro
145                 150                 155                 160
Pro Thr Ser Thr Leu Phe Leu Leu Ala Cys Val Phe Leu Ser Lys Leu
                165                 170                 175
Leu Val Ala Ser Ala Leu Trp Ala Ala Ala Trp His Gly His Lys Gln
            180                 185                 190
Arg Thr Ser Pro Ala Gly Gly Leu Asp Cys Gly Arg Asp Pro Gly Asp
        195                 200                 205
Gln Asp Gln Thr Leu Thr Asp Glu Leu Gly Glu Ser Ser Asp Gln Asp
    210                 215                 220
Gln Thr Leu Thr Glu Leu Arg Asp Thr
225                 230


<210> 8
```

<211> 230
<212> PRT
<213> Canis familiaris

<400> 8
Met Glu Pro Leu Trp Leu Leu Ile Leu Leu Ala Val Thr Glu Leu Ser
 1   5   10   15
Gly Ala His Asn Thr Thr Val Phe Gln Gly Met Ala Gly Arg Ser Leu
            20   25   30
Gln Val Ser Cys Pro Tyr Asn Ser Leu Lys His Trp Gly Arg Arg Lys
        35   40   45
Ala Trp Cys Arg Gln Val Asp Lys Glu Gly Pro Cys Gln Arg Val Val
    50   55   60
Ser Thr His Arg Ser Trp Leu Leu Ser Phe Leu Lys Arg Trp Asn Gly
65   70   75   80
Ser Thr Ala Ile Val Asp Asp Ala Leu Gly Gly Thr Leu Thr Ile Thr
                85   90   95
Leu Arg Asn Leu Gln Ala His Asp Ala Gly Leu Tyr Gln Cys Gln Ser
            100   105   110
Leu Tyr Gly Asp Glu Ala Asp Thr Leu Arg Lys Val Leu Val Glu Val
        115   120   125
Leu Ala Asp Pro Leu Asp His Leu Asp Pro Gly Asp Leu Trp Ile Pro
    130   135   140
Glu Glu Ser Lys Gly Phe Glu Asp Ala His Val Glu Pro Ser Val Ser
145   150   155   160
Arg Ser Leu Ser Glu Glu Glu Ile Pro Phe Pro Pro Thr Ser Ile Leu
                165   170   175
Phe Leu Leu Ala Cys Ile Phe Leu Ser Lys Phe Leu Ala Ala Ser Ala
            180   185   190
Leu Trp Ala Ala Ala Trp Arg Gly Gln Lys Leu Gly Thr Pro Gln Ala
        195   200   205
Ser Glu Leu Asp Cys Ser Cys Asp Pro Gly Tyr Gln Leu Gln Thr Leu
    210   215   220
Thr Glu Pro Arg Asp Met
225   230

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

<220>
<223> Synthetic Construct

<400> 9
Arg Ala Ser Glu Asn Ile Tyr Ser Phe Leu Ala
 1   5   10

<210> 10
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

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

<220>
<223> Synthetic Construct

<400> 11
Lys Ser Ser Gln Ser Leu Leu Tyr Ser Asn Gly Lys Thr Phe Leu Ser
 1   5   10   15

<210> 12
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 12
Lys Ser Ser Gln Ser Leu Leu Asp Ser Asp Gly Lys Thr Tyr Leu Asn
 1   5   10   15

<210> 13
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 13

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

<210> 14
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 14
Arg Ser Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His
 1   5   10   15

<210> 15
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 15
Arg Ser Ser Gln Thr Ile Ile His Ser Asn Gly Asn Thr Tyr Leu Glu
 1   5   10   15

<210> 16
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 16
Lys Ser Ser Gln Ser Leu Leu Tyr Ser Ser Asp Gln Lys Asn Tyr Leu
 1   5   10   15
Ala

<210> 17
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 17
Arg Ala Ser Glu Asn Ile Tyr Ser Tyr Leu Ala
 1   5   10

<210> 18
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 18
Arg Thr Ser Glu Asn Val Tyr Ser Asn Leu Ala
 1   5   10

<210> 19
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 19
Arg Ser Ser Gln Ser Leu Val His Ser Asn Gly Tyr Thr Tyr Leu His
 1   5   10   15

<210> 20
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 20
Arg Phe Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His
 1   5   10   15

<210> 21
<211> 10
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 21
Lys Ala Ser Ser Asn Val Asn Tyr Met Ser
 1   5   10

<210> 22
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 22
Lys Ser Ser Gln Ser Leu Leu Asn Ser Gly Asn Gln Lys Lys Tyr Leu
 1   5   10   15
Thr

<210> 23
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 23
Lys Ser Ser Gln Ser Leu Leu Tyr Ser Gly Asn Gln Lys Asn Phe Leu
 1   5   10   15
Ala

<210> 24
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 24
Asn Ser Lys Thr Phe Ala Glu

1 5

<210> 25
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 25
Trp Ala Phe Thr Arg Glu Ser
1 5

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

<220>
<223> Synthetic Construct

<400> 26
Leu Val Ser Lys Leu Asp Ser
1 5

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

<220>
<223> Synthetic Construct

<400> 27
Leu Thr Ser Ile Leu Ala Ser
1 5

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

<220>
<223> Synthetic Construct

<400> 28
Lys Val Ser Asn Arg Phe Ser
 1   5

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

<220>
<223> Synthetic Construct

<400> 29
Trp Ala Ser Thr Arg Glu Ser
 1   5

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

<220>
<223> Synthetic Construct

<400> 30
Lys Ala Lys Thr Leu Ala Glu
 1   5

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

<220>
<223> Synthetic Construct

<400> 31
Ala Ala Thr Asn Leu Ala Asp
 1   5

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

<220>

<223> Synthetic Construct

<400> 32
Phe Thr Ser Asn Leu Pro Ser
 1   5

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

<220>
<223> Synthetic Construct

<400> 33
Lys Val Ser Asn Arg Phe Cys
 1   5

<210> 34
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 34
Gln His His Tyr Gly Thr Pro Pro Trp Thr
 1   5   10

<210> 35
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 35
Gln Gln Tyr Tyr Ser Tyr Pro Leu Thr
 1   5

<210> 36
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 36
Met Gln Gly Thr His Phe Pro Leu Thr
 1   5

<210> 37
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 37
Trp Gln Gly Thr His Phe Pro Tyr Thr
 1   5

<210> 38
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 38
Gln Gln Trp Ser Phe Asn Pro Tyr Thr
 1   5

<210> 39
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 39
Ser Gln Ser Thr His Val Pro Leu Thr
 1   5

<210> 40
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 40
Phe Gln Gly Ser His Val Pro Tyr Thr
 1   5

<210> 41
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 41
Gln His His Tyr Gly Thr Pro Phe Thr
 1   5

<210> 42
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 42
His His Phe Trp Gly Thr Pro Tyr Thr
 1   5

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

<220>
<223> Synthetic Construct

<400> 43
Ser Gln Ser Thr Arg Val Pro Tyr Thr
 1   5

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

<220>
<223> Synthetic Construct

<400> 44
Ser Gln Ser Thr Arg Val Pro Pro Thr
 1   5

<210> 45
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 45
Ser Gly Glu Val Thr Gln Phe Thr
 1   5

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

<220>
<223> Synthetic Construct

<400> 46
Gln Asn Asp Tyr Gly Phe Pro Leu Thr
 1   5

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

<220>
<223> Synthetic Construct

<400> 47
Gln Gln Tyr Tyr Ser Tyr Pro Phe Thr
 1   5

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

<220>
<223> Synthetic Construct

<400> 48
Phe Thr Leu Ser Ser Tyr Ala Met Ser
 1   5

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

<220>
<223> Synthetic Construct

<400> 49
Tyr Thr Phe Thr Glu Tyr Thr Met His
 1   5

<210> 50
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 50
Tyr Thr Phe Thr Asp Tyr Glu Met His
 1   5

<210> 51
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 51

Phe Thr Phe Ser Asp Ala Trp Met Gly
 1   5

<210> 52
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 52
Phe Ser Phe Asn Thr Tyr Ala Met Asn
 1   5

<210> 53
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 53
Tyr Thr Val Ser Arg Tyr Trp Met His
 1   5

<210> 54
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 54
Tyr Pro Phe Ser Asn Phe Trp Ile Thr
 1   5

<210> 55
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 55
Leu Thr Ser Asn Thr Tyr Thr Gln Thr
 1   5

<210> 56
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 56
Phe Thr Phe Ser Asp Ala Trp Met Asp
 1   5

<210> 57
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 57
Phe Thr Phe Asn Thr Tyr Ser Met Asn
 1   5

<210> 58
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 58
Tyr Thr Phe Thr Thr Tyr Trp Ile His
 1   5

<210> 59
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 59
Tyr Ala Phe Ser Asn Tyr Trp Met Ser
 1   5

<210> 60
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 60
Tyr Ala Phe Ser Ser Ser Trp Met Asn
 1   5

<210> 61
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 61
Tyr Ile Phe Thr Thr Tyr Trp Ile His
 1   5

<210> 62
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 62
Phe Asn Phe Asn Thr Tyr Ala Met Lys
 1   5

<210> 63
<211> 9
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 63
Phe Asn Phe Asn Thr Tyr Ala Met Asn
 1   5

<210> 64
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 64
Tyr Thr Phe Ser Asp Tyr Tyr Ile His
 1   5

<210> 65
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 65
Phe Arg Phe Asn Thr Tyr Ala Met Thr
 1   5

<210> 66
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 66
Val Ala Ser Ile Ser Arg Gly Gly Ser Thr Tyr Tyr Pro
 1   5   10

<210> 67

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

<220>
<223> Synthetic Construct

<400> 67
Ile Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Ser
 1   5   10

<210> 68
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 68
Ile Gly Val Ile Asp Pro Glu Thr Gly Gly Thr Ala Tyr Asn
 1   5   10

<210> 69
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 69
Val Ala Glu Ile Arg Asp Lys Val Lys Asn His Ala Thr Tyr Tyr Ala
 1   5   10   15

<210> 70
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 70
Ile Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala
 1   5   10   15

<210> 71
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 71
Ile Gly Arg Ile Asp Pro Asn Ser Gly Gly Thr Lys Tyr Asn
 1   5   10

<210> 72
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 72
Ile Gly Asp Ile Tyr Pro Gly Ser Asp Asn Ser Asn Tyr Asn
 1   5   10

<210> 73
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 73
Glu Ser Val Ile Arg Ser Lys Ser Asn Asn Phe Ser Thr Leu Tyr Ala
 1   5   10   15

<210> 74
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 74
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Ala

1 5 10 15

<210> 75
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 8
<223> Xaa = Glutamic acid or Glutamine

<400> 75
Val Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala
1 5 10 15

<210> 76
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 76
Ile Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn
1 5 10

<210> 77
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 77
Ile Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn
1 5 10

<210> 78
<211> 14
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 78
Ile Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn
 1   5   10

<210> 79
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 79
Ile Gly Arg Ile Asp Pro Asn Asn Gly Asp Thr Asn Tyr Asn
 1   5   10

<210> 80
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 80
Ile Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser
 1   5   10   15

<210> 81
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 81
Ile Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn
 1   5   10

<210> 82

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

<220>
<223> Synthetic Construct

<400> 82
Val Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala
 1   5   10   15

<210> 83
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 83
Ile Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn
 1   5   10

<210> 84
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 84
Glu Gly Val Ile Arg Arg Lys Ser Ser Asn Phe Ala Thr Leu Tyr Ala
 1   5   10   15

<210> 85
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 85
Thr Arg Gly Tyr Gly Tyr Tyr Arg Thr Pro Phe Ala Asn
 1   5   10

<210> 86
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 86
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr
 1   5   10

<210> 87
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 87
Thr Ser Pro Asp Tyr Tyr Gly Ser Ser Tyr Pro Leu Tyr Tyr Ala Met
 1   5   10   15
Asp Tyr

<210> 88
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 88
Arg Leu Gly Val Phe Asp Tyr
 1   5

<210> 89
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 89
Val Arg His Gly Asp Gly Asn Leu Trp Tyr Ile Asp Val
 1   5   10

<210> 90
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 90
Val Leu Thr Gly Thr Asp Phe Asp Tyr
 1   5

<210> 91
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 91
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr
 1   5   10

<210> 92
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 92
Val Arg His Lys Ser Asn Arg Tyr Pro Gly Val Tyr
 1   5   10

<210> 93
<211> 13
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 93
Thr Ser Leu Tyr Asp Gly Tyr Tyr Leu Arg Phe Ala Tyr
 1   5   10

<210> 94
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 2, 4
<223> Xaa = Glutamic acid or Glutamine

<400> 94
Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr
 1   5   10

<210> 95
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 95
Val Arg Thr Asn Trp Asp Gly Asp Phe
 1   5

<210> 96
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 96
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp
 1   5   10   15
Phe Ser Tyr

<210> 97
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 97
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
 1   5   10   15

<210> 98
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 98
Val Met Thr Gly Thr Asp Phe Asp Tyr
 1   5

<210> 99
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 99
Val Gly His Lys Ile Asn Asn Tyr Pro Phe Ala His
 1   5   10

<210> 100
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 100
Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr
 1   5   10

<210> 101
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 101
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr
 1   5   10

<210> 102
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 102
Val Arg His Lys Ser Asn Lys Tyr Pro Phe Val Tyr
 1   5   10

<210> 103
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 103
Asp Ile Xaa Val Thr Gln Ser Pro Ala Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Glu Thr Val Thr Ile Thr Cys
            20

<210> 104
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 104
Thr Met Ser Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly Glu Lys
 1   5   10   15
Val Thr Met Ser Cys
            20

<210> 105
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 105
Asp Val Xaa Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys
            20

<210> 106
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 106
Val Leu Thr Gln Ser Pro Ala Leu Met Ser Ala Ser Pro Gly Glu Lys
 1   5   10   15
Val Thr Met Thr Cys
            20

<210> 107
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 107
Asp Val Xaa Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys
            20

<210> 108
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 10
<223> Xaa = Glutamic acid or Glutamine

<400> 108
Val Leu Thr Gln Ser Pro Ala Ile Met Xaa Ala Ser Pro Gly Glu Lys
 1   5   10   15
Val Thr Met Thr Cys
            20

<210> 109
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 109

Asn Val Leu Thr Gln Ser Pro Ala Leu Met Ser Ala Ser Pro Gly Glu
 1   5   10   15
Lys Val Thr Met Thr Cys
            20

<210> 110
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 110
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys
            20

<210> 111
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 111
Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys
            20

<210> 112
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 112
Ile Thr Met Ser Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly Glu
 1   5   10   15
Lys Val Thr Met Ser Cys
            20

<210> 113
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 10, 12
<223> Xaa = Glutamic acid or Glutamine

<400> 113
Gln Met Ser Gln Ser Pro Ala Cys Leu Xaa Ala Xaa Val Gly Glu Ser
 1   5   10   15
Val Thr Ile Thr Cys
            20

<210> 114
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 114
Asp Ile Gln Met Thr Gln Ser Pro Ala Ser Leu Ser Val Ser Val Gly
 1   5   10   15
Glu Thr Val Thr Ile Thr Cys
            20

<210> 115
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 115

Asp Val Xaa Met Thr Gln Asn Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys
            20

<210> 116
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 116
Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys
            20

<210> 117
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 13
<223> Xaa = Glutamic acid or Glutamine

<400> 117
Asn Val Leu Thr Gln Ser Pro Ala Leu Ile Trp Ala Xaa Pro Gly Glu
 1   5   10   15
Lys Val Thr Met Thr Cys
            20

<210> 118
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>

<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 118
Asp Ile Xaa Met Thr Gln Ser Pro Ser Ser Leu Thr Val Thr Ala Gly
 1   5   10   15
Glu Lys Val Thr Met Ser Cys
            20

<210> 119
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 119
Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly Glu Lys Val Thr
 1   5   10   15
Met Thr Cys

<210> 120
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 120
Trp Tyr Gln Leu Lys Gln Gly Lys Ser Pro Gln Leu Leu Val Tyr
 1   5   10   15

<210> 121
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 121
Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr
 1   5   10   15

<210> 122
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 122
Trp Leu Leu Gln Arg Pro Gly Gln Ser Pro Lys Arg Leu Ile Tyr
 1   5   10   15

<210> 123
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 123
Trp Tyr Gln Gln Lys Pro Arg Ser Ser Pro Lys Pro Trp Ile Tyr
 1   5   10   15

<210> 124
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 124
Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Tyr
 1   5   10   15

<210> 125
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 125

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

<210> 126
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 126
Trp Tyr Gln Gln Lys Gln Gly Lys Ser Pro Lys Leu Val Val Tyr
 1   5   10   15

<210> 127
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 127
Trp Tyr Gln Gln Lys Gln Gly Lys Ser Pro Gln Leu Leu Val Tyr
 1   5   10   15

<210> 128
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 2, 3, 4
<223> Xaa = Any Amino Acid

<400> 128
Trp Xaa Xaa Xaa Lys Pro Arg Ser Ser Pro Lys Pro Gly Ile Tyr
 1   5   10   15

<210> 129
<211> 15

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 10
<223> Xaa = Glutamic acid or Glutamine

<400> 129
Trp Tyr Gln Gln Lys Pro Gly Gln Pro Xaa Lys Leu Leu Ile Tyr
 1   5   10   15

<210> 130
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 130
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Gln Phe Ser
 1   5   10   15
Leu Arg Ile Asn Ser Leu Gln Pro Glu Asp Phe Gly Ser Tyr Tyr Cys
            20   25   30

<210> 131
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 131
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Thr Ile Ser Ser Val Lys Ala Glu Asp Leu Ala Val Tyr Tyr Cys
            20   25   30

<210> 132
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 132
Gly Val Pro Asp Arg Phe Ala Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Lys Ile Ser Arg Leu Glu Ala Asp Asp Leu Gly Ile Tyr Tyr Cys
            20   25   30

<210> 133
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 133
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys
            20   25   30

<210> 134
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 134
Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser
 1   5   10   15
Leu Thr Ile Asn Asn Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
            20   25   30

<210> 135
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 135

```
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1               5                  10                  15
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys
            20                  25                  30
```

<210> 136
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 136

```
Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Ser Tyr Ser
 1               5                  10                  15
Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala Ala Thr Tyr Tyr Cys
            20                  25                  30
```

<210> 137
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 137

```
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1               5                  10                  15
Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys
            20                  25                  30
```

<210> 138
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 17
<223> Xaa = Glutamic acid or Glutamine

<400> 138

Gly Val Pro Asp Arg Phe Ala Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Xaa Lys Ile Ser Arg Leu Glu Ala Asp Asp Leu Gly Ile Tyr Tyr Cys
            20   25   30

<210> 139
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 139
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Thr Ile Ser Ser Val Lys Ala Glu Asp Leu Ala Val Tyr Cys Cys
            20   25   30

<210> 140
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 140
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Lys Ile Ser Arg Val Glu Gly Glu Asp Leu Gly Val Tyr Tyr Cys
            20   25   30

<210> 141
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 22
<223> Xaa = Glutamic acid or Glutamine

<400> 141

```
Gly Val Pro Ser Arg Phe Ser Gly Arg Gly Ser Gly Thr Gln Phe Phe
 1               5                  10                  15
Leu Lys Ile Asn Ser Xaa Gln Arg Glu Asp Phe Gly Ser Tyr Tyr Cys
            20                  25                  30
```

<210> 142
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 142
```
Gly Val Pro Ser Arg Phe Ser Ala Ser Gly Ser Ala Thr Gln Phe Ser
 1               5                  10                  15
Leu Lys Ile Asn Ser Leu Gln Ser Ala Asp Phe Gly Ser Tyr Tyr Cys
            20                  25                  30
```

<210> 143
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 143
```
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1               5                  10                  15
Leu Lys Ile Ser Arg Val Glu Ala Asp Asp Leu Gly Val Tyr Leu Cys
            20                  25                  30
```

<210> 144
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 144
```
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1               5                  10                  15
Leu Arg Ile Ser Gly Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys
            20                  25                  30
```

<210> 145
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 15
<223> Xaa = Any Amino Acid

<400> 145
Gly Val Pro Gly Arg Phe Ser Gly Ser Gly Ser Gly Thr Tyr Xaa Ser
 1   5   10   15
Phe Lys Ile Ser Ser Met Glu Gly Lys Met Gly Pro Leu Ile Ile Phe
            20   25   30
Cys

<210> 146
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 11
<223> Xaa = Glutamic acid or Glutamine

<400> 146
Gly Val Arg Asp Arg Phe Thr Gly Ser Gly Xaa Gly Thr Asp Phe Thr
 1   5   10   15
Leu Thr Ile Ser Ser Val Gln Gly Glu Asp Leu Ala Ile Tyr Tyr Cys
            20   25   30

<210> 147
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 147
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Thr Ile Ser Thr Val Lys Ala Glu Asp Leu Ala Val Tyr Tyr Cys
            20   25   30

<210> 148
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 148
Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 1   5   10

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

<220>
<223> Synthetic Construct

<400> 149
Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
 1   5   10

<210> 150
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 150
Phe Gly Gly Gly Thr Lys Leu Val Ile Lys
 1   5   10

<210> 151
<211> 10
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 151
Phe Gly Gly Gly Thr Glu Leu Glu Ile Lys
 1   5   10

<210> 152
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 152
Phe Gly Gly Gly Thr Lys Leu Glu Met Lys
 1   5   10

<210> 153
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 153
Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
 1   5   10

<210> 154
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 154
Phe Gly Gly Gly Thr Lys Leu Glu Met Asn
 1   5   10

<210> 155

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

<220>
<223> Synthetic Construct

<400> 155
Phe Gly Gly Gly Thr Lys Leu Glu Met Lys
 1   5   10

<210> 156
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 156
Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 157
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 157
Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Thr
 1   5   10   15
Ser Val Lys Ile Ser Cys Lys Thr Ser Gly
            20   25

<210> 158
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 158
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Pro Gly Ala
 1   5   10   15
Ser Val Thr Leu Ser Cys Lys Ala Ser Gly
            20   25

<210> 159
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 159
Glu Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Met Lys Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 160
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 160
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Lys Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 161
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 161
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Leu Ser Cys Lys Ala Ser Gly
            20   25

<210> 162
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = Glutamic acid or Glutamine

<400> 162
Xaa Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Lys Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 163
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 163
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Met Ser Cys Lys Thr Ser Gly
            20   25

<210> 164
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 6, 7, 11, 19, 20, 24
<223> Xaa = Glutamic acid or Glutamine

<220>
<221> VARIANT
<222> 18
<223> Xaa = Any Amino Acid

<400> 164
Glu Val Gln Leu Val Xaa Xaa Gly Arg Gly Xaa Ser Gln Gly Lys Gly
 1   5   10   15
Ser Xaa Xaa Xaa Gly Arg Ala Xaa Arg Cys
            20   25

<210> 165
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 165
Glu Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Met Lys Leu Ser Cys Thr Ala Ser Gly
            20   25

<210> 166
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 166
Leu Ser Cys Ala Ala Ser Gly
 1   5

<210> 167
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 167
Gln Val Gln Leu Gln Gln Ser Gly Ala Val Leu Val Lys Pro Gly Ala

```
 1               5                  10                  15
Ser Val Lys Leu Ser Cys Lys Ala Ser Gly
            20                  25
```

<210> 168
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 168

```
Glu Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly
            20                  25
```

<210> 169
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 169

```
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1               5                  10                  15
Ser Leu Lys Ile Ser Cys Lys Ala Ser Gly
            20                  25
```

<210> 170
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 170

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Lys Gly
 1               5                  10                  15
Ser Leu Lys Leu Ser Cys Ala Ala Phe Gly
            20                  25
```

<210> 171
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 171
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Val Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Met Ser Cys Lys Thr Ser Gly
            20   25

<210> 172
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 172
Glu Val Gln Leu Val Glu Ser Gly Gly Arg Leu Val Gln Pro Lys Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly
            20   25

<210> 173
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 173
Gln Val Gln Leu Gln Gln Tyr Gly Pro Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Met Ser Cys Lys Val Ser Gly
            20   25

<210> 174
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 174
Trp Arg Ile Gly Gln Gly Lys Gly Ser Leu Lys Leu Ala Arg Ala Ala
 1   5   10   15
Arg Gly

<210> 175
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 175
Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp
 1   5   10

<210> 176
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 176
Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp
 1   5   10

<210> 177
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 177
Trp Val Lys Gln Thr Pro Val His Gly Leu Glu Trp
 1   5   10

<210> 178

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

<220>
<223> Synthetic Construct

<400> 178
Trp Val Arg Gln Ser Pro Glu Lys Gly Leu Glu Trp
 1   5   10

<210> 179
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 179
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 1   5   10

<210> 180
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 180
Trp Val Lys Gln Arg Pro Gly Arg Gly Leu Glu Trp
 1   5   10

<210> 181
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 181
Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Val Trp
 1   5   10

<210> 182
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 182
Gly Val Pro Gln Gly Pro Gly Lys Gly Arg Glu Trp
 1   5   10

<210> 183
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 183
Trp Val Lys Gln Arg Pro Gly Arg Gly Pro Glu Trp
 1   5   10

<210> 184
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 184
Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp
 1   5   10

<210> 185
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 185
Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp

1 5 10

<210> 186
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 186
Trp Met Lys Gln Ser His Gly Lys Ser Leu Glu Trp
1 5 10

<210> 187
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 187
Arg Val Arg Gln Gly Pro Gly Lys Gly Arg Glu Trp
1 5 10

<210> 188
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 188
Asp Ser Val Gln Gly Arg Phe Thr Phe Ser Arg Asp Asn Ala Arg Asn
1 5 10 15
Ile Leu Tyr Leu Gln Met Ser Ser Leu Arg Ser Glu Asp Thr Ala Met
20 25 30
Tyr Tyr Cys
35

<210> 189
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 189
Gln Lys Phe Lys Gly Lys Ala Ser Leu Thr Val Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Glu Leu His Ser Leu Ala Ser Asp Asp Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 190
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 190
Gln Lys Phe Lys Gly Lys Ala Ile Leu Thr Ala Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 191
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 191
Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser
 1   5   10   15
Thr Val Tyr Leu Gln Met Asn Thr Leu Arg Ala Asp Asp Thr Gly Ile
            20   25   30
Tyr Tyr Cys
        35

<210> 192
<211> 35
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 192
Asp Ser Val Lys Asp Arg Ile Thr Cys Ser Arg Asp Asp Ser Glu Asn
 1   5   10   15
Met Phe Tyr Leu Gln Leu Ser Ser Leu Lys Thr Glu Asp Thr Ala Met
            20   25   30
Tyr Tyr Cys
        35

<210> 193
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 193
Glu Lys Phe Lys Thr Lys Ala Thr Leu Thr Val Asp Lys Pro Ser Ser
 1   5   10   15
Thr Ala Tyr Met Gln Val Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 194
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 194
Asp Ser Val Lys Asp Arg Phe Thr Cys Ser Arg Asp Asp Ser Glu Asn
 1   5   10   15
Met Phe Tyr Leu Gln Leu Ser Ser Leu Lys Thr Glu Asp Thr Ala Ile
            20   25   30
Tyr Tyr Cys
        35

<210> 195
<211> 35

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 195
Asp Ser Val Lys Asp Arg Phe Thr Cys Ser Arg Asp Asp Ser Glu Asn
 1   5   10   15
Met Phe Tyr Leu Gln Leu Ser Ser Leu Lys Thr Glu Asp Thr Ala Met
            20   25   30
Tyr Tyr Cys
        35

<210> 196
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 196
Glu Lys Phe Lys Thr Lys Ala Thr Leu Thr Val Asp Thr Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met His Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Phe Cys
        35

<210> 197
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 9, 20, 24, 25, 27, 35
<223> Xaa = Glutamic acid or Glutamine

<400> 197
Asp Ser Val Lys Asp Arg Phe Thr Xaa Ser Arg Asp Asp Ser Glu Ser
 1   5   10   15
Leu Phe Tyr Xaa Gln Met Ser Xaa Xaa Lys Xaa Glu Asp Thr Ala Met
            20   25   30

Tyr Tyr Xaa
        35

<210> 198
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 198
Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser
 1   5   10   15
Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Gly Ile
            20   25   30
Tyr Tyr Cys
        35

<210> 199
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 23
<223> Xaa = Glutamic acid or Glutamine

<400> 199
Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Glu Ser
 1   5   10   15
Met Leu Tyr Leu Gln Met Xaa Asn Leu Lys Thr Glu Asp Thr Ala Met
            20   25   30
Tyr Tyr Cys
        35

<210> 200
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 30
<223> Xaa = Glutamic acid or Glutamine

<400> 200
Glu Lys Phe Arg Asn Lys Ala Ile Leu Thr Val Asp Lys Pro Ser Ser
 1   5   10   15
Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Xaa Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 201
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 201
Gly Lys Phe Glu Gly Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Phe Cys
        35

<210> 202
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 202
Gly Glu Phe Arg Val Arg Ala Thr Leu Thr Ala Asp Thr Ser Ser Thr
 1   5   10   15
Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Phe Cys
        35

<210> 203

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

<220>
<223> Synthetic Construct

<400> 203
Glu Lys Phe Lys Thr Lys Ala Thr Leu Thr Val Asp Lys Pro Ser Ser
 1   5   10   15
Thr Ala Asp Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 204
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 204
Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Glu Ser
 1   5   10   15
Ile Val Tyr Val Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Gly Met
            20   25   30
Tyr Ser Cys
        35

<210> 205
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 205
Glu Arg Phe Lys Thr Lys Ala Thr Leu Thr Val Asp Thr Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met His Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Phe Cys
        35

<210> 206
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 206
Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Glu Ser
 1   5   10   15
Met Leu Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Met
            20   25   30
Tyr Tyr Cys
        35

<210> 207
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 34
<223> Xaa = Glutamic acid or Glutamine

<400> 207
Gln Glu Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Glu Leu Arg Ser Leu Thr Phe Glu Asp Ser Ala Val
            20   25   30
Tyr Xaa Cys
        35

<210> 208
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 208
Asp Ser Val Lys Asp Arg Phe Arg Ala Ser Arg Asp Asp Ser Glu Ser
 1   5   10   15

Met Leu Tyr Val Gln Met Ser Asn Trp Lys Gln Glu Asp Thr Ala Met
            20   25   30
Tyr Tyr Gly
        35

<210> 209
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 209
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala
 1   5   10

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

<220>
<223> Synthetic Construct

<400> 210
Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser
 1   5   10

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

<220>
<223> Synthetic Construct

<400> 211
Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
 1   5   10

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

<220>
<223> Synthetic Construct

<400> 212
Trp Gly Thr Gly Thr Thr Val Thr Val Ser Thr
 1   5   10

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

<220>
<223> Synthetic Construct

<400> 213
Trp Gly Thr Gly Thr Thr Val Thr Val Ser Ser
 1   5   10

<210> 214
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 214
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Thr
 1   5   10

<210> 215
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 215
Trp Gly Gln Gly Thr Ile Val Thr Val Ser
 1   5   10

<210> 216
<211> 11
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 216
Trp Gly Gln Gly Ala Ser Val Thr Val Ser Ser
 1   5   10

<210> 217
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 217
Trp Gly Arg Gly Thr Leu Val
 1   5

<210> 218
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 218
Trp Gly Gln Gly Thr
 1   5

<210> 219
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 219

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

<210> 220
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 220

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

<210> 221
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 221

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

<210> 222
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 222

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

<210> 223
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 223

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

<210> 224
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 224

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

<210> 225
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 225

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

<210> 226
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 226

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

<210> 227
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 227

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

<210> 228
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 228

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

<210> 229
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 229

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

<210> 230
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 230

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

<210> 231
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 231

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

<210> 232
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 232

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

<210> 233
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 233
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Leu Gln Lys Pro Gly Gln
        35   40   45
Ser Pro Gln Leu Leu Ile Tyr Trp Ala Phe Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65   70   75   80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 234
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 234
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Phe Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 235

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

<220>
<223> Synthetic Construct

<400> 235
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Phe Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 236
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 236
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Phe Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 237
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 237
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Phe Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 238
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 238
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Phe Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln

```
                85                  90                  95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100                 105                 110
Lys
```

<210> 239
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 239

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

<210> 240
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 240

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

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

<210> 241
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 241

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

<210> 242
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 242

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

<210> 243
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 243

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

<210> 244
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 244

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

<210> 245
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 245

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

<210> 246
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 246

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

<210> 247
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 247

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

<210> 248
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 248

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

<210> 249
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 249

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

<210> 250
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 250

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

<210> 251
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 251
```
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20                  25                  30
Asn Gly Lys Thr Phe Leu Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35                  40                  45
Pro Arg Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Ile Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65                  70                  75                  80
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Met Gln Gly
                85                  90                  95
Thr His Phe Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
```

<210> 252
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>

<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 252
Asp Val Xaa Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Leu Leu Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 253
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 253
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Arg Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 254
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 254
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 255
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 255
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Pro
        35   40   45
Pro Lys Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 256
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 256
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 257
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 257
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 258
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 258
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 259
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 259
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 260
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 260
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 261
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 261
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 262
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 262
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Asn Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Ile Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Trp Gln Gly
                85   90   95
Thr His Phe Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 263
<211> 104
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 263
Val Leu Thr Gln Ser Pro Ala Leu Met Ser Ala Ser Pro Gly Glu Lys
 1   5   10   15
Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met Tyr Trp
            20   25   30
Tyr Gln Gln Lys Pro Arg Ser Ser Pro Lys Pro Trp Ile Tyr Leu Thr
        35   40   45
Ser Ile Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser
    50   55   60
Gly Thr Ser Tyr Ser Leu Thr Ile Asn Asn Met Glu Ala Glu Asp Ala
65   70   75   80
Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr Phe Gly
                85   90   95
Gly Gly Thr Lys Leu Val Ile Lys
            100

<210> 264
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 264
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro Glu
65   70   75   80
Asp Phe Ala Val Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 265
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 265
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
65   70   75   80
Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 266
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 266
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Asp
65   70   75   80
Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 267
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 267
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Ile Pro Ala Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser Glu
65   70   75   80
Asp Phe Ala Val Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 268
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 268
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
65   70   75   80
Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 269
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 269
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro Glu
65   70   75   80
Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 270
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 270
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu
65   70   75   80
Asp Phe Ala Val Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 271
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 271
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu
65   70   75   80
Asp Val Gly Val Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 272
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 272
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Phe Gln Gln Arg Pro Gly Gln Ser Pro Arg Arg Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu
65   70   75   80
Asp Val Gly Val Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 273
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 273
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
            20   25   30
Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr
        35   40   45
Leu Thr Ser Ile Leu Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu
65   70   75   80
Asp Val Ala Val Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr
                85   90   95
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 274
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 274
Asp Val Xaa Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
            100   105   110

<210> 275
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 275
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 276
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 276
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 277
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 277
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Pro
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 278
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 278
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 279
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 279
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 280
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 280
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 281
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 281
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 282
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 282
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 283
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 283
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 284
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 284
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr His Val Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 285
<211> 104
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 10
<223> Xaa = Glutamic acid or Glutamine

<400> 285
Val Leu Thr Gln Ser Pro Ala Ile Met Xaa Ala Ser Pro Gly Glu Lys
 1   5   10   15
Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met Tyr Trp
            20   25   30
Tyr Gln Gln Lys Pro Arg Ser Ser Pro Lys Pro Trp Ile Tyr Leu Thr
        35   40   45
Ser Ile Leu Ala Ser Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser
    50   55   60
Gly Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu Asp Ala
65   70   75   80

```
Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Phe Asn Pro Tyr Thr Phe Gly
                85                  90                  95
Gly Gly Thr Lys Leu Val Ile Lys
            100
```

<210> 286
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 286

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

<210> 287
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 287

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

```
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
                85                  90                  95
Ser His Val Pro Tyr Thr Phe Gly Gly Gly Thr Glu Leu Glu Ile Lys
            100                 105                 110


<210> 288
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 288
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1               5                  10                  15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu Glu Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35                  40                  45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
                85                  90                  95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 289
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 289
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1               5                  10                  15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35                  40                  45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
```

```
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
                85                  90                  95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 290
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 290
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1               5                  10                  15
Glu Arg Ala Thr Ile Asn Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Gln Pro
        35                  40                  45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65                  70                  75                  80
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Phe Gln Gly
                85                  90                  95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 291
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 291
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35                  40                  45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50                  55                  60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65                  70                  75                  80
```

```
Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Phe Gln Gly
                85                  90                  95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 292
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 292
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35                  40                  45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50                  55                  60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65                  70                  75                  80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Phe Gln Gly
                85                  90                  95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 293
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 293
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35                  40                  45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50                  55                  60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile
65                  70                  75                  80
```

Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Phe Gln Gly
85 90 95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 294
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 294
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Thr Ile Ile His Ser
20 25 30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Lys Ala
35 40 45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65 70 75 80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Phe Gln Gly
85 90 95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 295
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 295
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
20 25 30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Gln Ala
35 40 45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
50 55 60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65 70 75 80

Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Phe Gln Gly
85 90 95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 296
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 296
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Thr Ile Ile His Ser
20 25 30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Lys Ala
35 40 45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65 70 75 80
Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Phe Gln Gly
85 90 95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 297
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 297
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
20 25 30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Gln Ala
35 40 45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
50 55 60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65 70 75 80

```
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Phe Gln Gly
                85                  90                  95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 298
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 78
<223> Xaa = Glutamic acid or Glutamine

<400> 298
Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
 1               5                  10                  15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20                  25                  30
Asn Gly Lys Thr Phe Leu Ser Trp Leu Leu Gln Arg Pro Gly Gln Ser
        35                  40                  45
Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ala Gly Ser Gly Ser Gly Thr Asp Phe Thr Xaa Lys Ile
65                  70                  75                  80
Ser Arg Leu Glu Ala Asp Asp Leu Gly Ile Tyr Tyr Cys Met Gln Gly
                85                  90                  95
Thr His Phe Pro Leu Thr Phe Gly Gly Gly Thr Lys Leu Glu Met Lys
            100                 105                 110


<210> 299
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 299
Ile Thr Met Ser Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly Glu
 1               5                  10                  15
Lys Val Thr Met Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser Ser
            20                  25                  30
Asp Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser
```

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

<210> 300
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 300

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

<210> 301
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 301

```
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1               5                  10                  15
Glu Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
```

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

<210> 302
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 302

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

<210> 303
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 303
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asp Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 304
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 304
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asp Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 305
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 305
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asp Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 306
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 306
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asp Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 307
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 307
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asp Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 308
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 308
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asp Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110

Lys

<210> 309
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 309
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asp Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 310
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

<400> 310
Asp Val Xaa Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Arg Lys Pro Gly Gln Ser

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

<210> 311
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 10, 12, 76
<223> Xaa = Glutamic acid or Glutamine

<400> 311

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

<210> 312
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 312

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

<210> 313
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 313

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

<210> 314
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 314

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

<210> 315
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 315

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

<210> 316
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 316

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

<210> 317
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 317

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

<210> 318
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 318

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

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

<220>
<223> Synthetic Construct

<400> 319

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

<210> 320
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 320

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

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

<220>
<223> Synthetic Construct

<400> 321

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

<210> 322
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 322

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

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

<220>
<223> Synthetic Construct

<400> 323

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

<210> 324
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 324

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

<210> 325
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 325

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

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

<220>
<223> Synthetic Construct

<400> 326

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

<210> 327
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 327

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

<210> 328
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 328

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

<210> 329
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 329

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

<210> 330
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 330

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

<210> 331
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 331

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

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

<220>
<223> Synthetic Construct

<400> 332

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

<210> 333
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Glutamic acid or Glutamine

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

<210> 334
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 334
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 335
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 335
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 336
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 336
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Pro
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 337
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 337
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 338
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 338
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 339
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 339
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 340
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 340
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 341
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 341
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 342
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 342
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 343
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 343
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 344
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 344
Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Phe Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Arg Ile
65   70   75   80
Ser Gly Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 345
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 346
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 346
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Phe Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 347
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 347
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Arg Phe Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Pro
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 348
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 348
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Phe Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 349
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 349
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Phe Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 350
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 350
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Phe Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 351
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 352
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 352
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Phe Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 353
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 354
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 354
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Phe Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65   70   75   80
Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 355
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 356
<211> 105

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 357
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 358
<211> 105

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 358
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Ser Asn Val Asn Tyr Met
            20   25   30
Ser Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
        35   40   45
Phe Thr Ser Asn Leu Pro Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
65   70   75   80
Asp Phe Ala Thr Tyr Tyr Cys Ser Gly Glu Val Thr Gln Phe Thr Phe
                85   90   95
Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 359
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 359
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Ser Asn Val Asn Tyr Met
            20   25   30
Ser Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
        35   40   45
Phe Thr Ser Asn Leu Pro Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Asp
65   70   75   80
Asp Phe Ala Thr Tyr Tyr Cys Ser Gly Glu Val Thr Gln Phe Thr Phe
                85   90   95
Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 360
<211> 105

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 361
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 361
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ala Ser Ser Asn Val Asn Tyr Met
            20   25   30
Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
        35   40   45
Phe Thr Ser Asn Leu Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu
65   70   75   80
Asp Phe Ala Val Tyr Tyr Cys Ser Gly Glu Val Thr Gln Phe Thr Phe
                85   90   95
Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 362
<211> 105

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 362
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Lys Ala Ser Ser Asn Val Asn Tyr Met
            20   25   30
Ser Trp Tyr Leu Gln Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr
        35   40   45
Phe Thr Ser Asn Leu Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu
65   70   75   80
Asp Val Gly Val Tyr Tyr Cys Ser Gly Glu Val Thr Gln Phe Thr Phe
                85   90   95
Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 363
<211> 105
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 363
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Lys Ala Ser Ser Asn Val Asn Tyr Met
            20   25   30
Ser Trp Phe Gln Gln Arg Pro Gly Gln Ser Pro Arg Arg Leu Ile Tyr
        35   40   45
Phe Thr Ser Asn Leu Pro Ser Gly Val Pro Asp Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu
65   70   75   80
Asp Val Gly Val Tyr Tyr Cys Ser Gly Glu Val Thr Gln Phe Thr Phe
                85   90   95
Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 364
<211> 105

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 365
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 366
<211> 112

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 366
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu Glu Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Phe Cys Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
                85   90   95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 367
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 367
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Cys Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Phe Gln Gly
                85   90   95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 368
<211> 112

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 369
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 370
<211> 112

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 370
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35   40   45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Cys Gly Ile Pro
    50   55   60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Phe Gln Gly
                85   90   95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

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

<220>
<223> Synthetic Construct

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

<210> 372
<211> 112

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 373
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 373
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Cys Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Phe Gln Gly
                85   90   95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 374
<211> 112

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 374
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Thr Ile Ile His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Gln Gln Lys Pro Gly Lys Ala
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Cys Gly Val Pro
    50   55   60
Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65   70   75   80
Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Phe Gln Gly
                85   90   95
Ser His Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

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

<220>
<223> Synthetic Construct

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

<210> 376
<211> 113

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3, 50, 73
<223> Xaa = Glutamic acid or Glutamine

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

<210> 377
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 377
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
            20   25   30
Gly Asn Gln Lys Lys Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Asn

```
                85                  90                  95
Asp Tyr Gly Phe Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100                 105                 110
Lys
```

<210> 378
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 378

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

<210> 379
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 379

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

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

<210> 380
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 380

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

<210> 381
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 381

```
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
```

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

<210> 382
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 382

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

<210> 383
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 383
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
            20   25   30
Gly Asn Gln Lys Lys Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Asn
                85   90   95
Asp Tyr Gly Phe Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 384
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 384
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
            20   25   30
Gly Asn Gln Lys Lys Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Asn
                85   90   95
Asp Tyr Gly Phe Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 385
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 385
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
            20   25   30
Gly Asn Gln Lys Lys Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Asn
                85   90   95
Asp Tyr Gly Phe Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 386
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 386
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Asn Ser
            20   25   30
Gly Asn Gln Lys Lys Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Asn
                85   90   95
Asp Tyr Gly Phe Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 387
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 387
Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly Glu Lys Val Thr
 1   5   10   15
Met Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser Gly Asn Gln Lys
            20   25   30
Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu
        35   40   45
Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val Pro Asp Arg Phe
    50   55   60
Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Thr Val
65   70   75   80
Lys Ala Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln Tyr Tyr Ser Tyr
                85   90   95
Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 388
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 388
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Gly Asn Gln Lys Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 389
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 390
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

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

<210> 391
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 391
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Gly Asn Gln Lys Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 392
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 392
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Gly Asn Gln Lys Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65 70 75 80
Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
85 90 95
Tyr Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys

<210> 393
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 393
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30
Gly Asn Gln Lys Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
35 40 45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
50 55 60
Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65 70 75 80
Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
85 90 95
Tyr Tyr Ser Tyr Pro Phe Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100 105 110
Lys

<210> 394
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 394
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
20 25 30

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

<210> 395
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 395

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

<210> 396
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 396

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

<210> 397
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 397

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

<210> 398
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 399
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 399
Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
        35   40   45
Ala Ser Ile Ser Arg Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Gln
    50   55   60
Gly Arg Phe Thr Phe Ser Arg Asp Asn Ala Arg Asn Ile Leu Tyr Leu
65   70   75   80
Gln Met Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys Thr
                85   90   95
Arg Gly Tyr Gly Tyr Tyr Arg Thr Pro Phe Ala Asn Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ala
        115

<210> 400
<211> 119
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 401
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 401
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Ser Ile Ser Arg Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr
                85   90   95
Arg Gly Tyr Gly Tyr Tyr Arg Thr Pro Phe Ala Asn Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 402
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 402
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Ser Ile Ser Arg Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr
                85   90   95
Arg Gly Tyr Gly Tyr Tyr Arg Thr Pro Phe Ala Asn Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 403
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 403
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Leu Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Ser Ile Ser Arg Gly Gly Ser Thr Tyr Tyr Pro Asp Ser Val Lys
    50   55   60
Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr Leu
65   70   75   80
Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr
                85   90   95
Arg Gly Tyr Gly Tyr Tyr Arg Thr Pro Phe Ala Asn Trp Gly Gln Gly

```
            100                 105                 110
Thr Leu Val Thr Val Ser Ser
        115
```

<210> 404
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 404

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

<210> 405
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 405

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

65 70 75 80
Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Thr
85 90 95
Arg Gly Tyr Gly Tyr Tyr Arg Thr Pro Phe Ala Asn Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ser
115

<210> 406
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 406
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Phe Thr Leu Ser Ser Tyr
20 25 30
Ala Met Ser Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Ser Ile Ser Arg Gly Gly Ser Thr Tyr Tyr Pro Pro Ser Phe Gln
50 55 60
Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr Leu
65 70 75 80
Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys Thr
85 90 95
Arg Gly Tyr Gly Tyr Tyr Arg Thr Pro Phe Ala Asn Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ser
115

<210> 407
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 407
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Leu Ser Ser Tyr
20 25 30
Ala Met Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val

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

<210> 408
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 408

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

<210> 409
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 409

```
Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Thr
```

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


<210> 410
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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


<210> 411
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
```

<223> Synthetic Construct

<400> 411
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Ser Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 412
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 413
<211> 119

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 413
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Ser Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 414
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 415
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 415
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Ser Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 416
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 416
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Ser Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ser
115

<210> 417
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 417
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
20 25 30
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Ser Ala Pro Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ser
115

<210> 418
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 418
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Phe Thr Glu Tyr
20 25 30
Thr Met His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Ser Pro Ser Leu
50 55 60

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

<210> 419
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 419

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

<210> 420
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 420

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
            20                  25                  30
```

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

<210> 421
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 421

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

<210> 422
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 422

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

<210> 423
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 423

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

<210> 424
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 424
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
            20   25   30
Glu Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Val Ile Asp Pro Glu Thr Gly Gly Thr Ala Tyr Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Thr Ser Pro Asp Tyr Tyr Gly Ser Ser Tyr Pro Leu Tyr Tyr Ala Met
            100   105   110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 425
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 425
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
            20   25   30
Glu Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Val Ile Asp Pro Glu Thr Gly Gly Thr Ala Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Thr Ser Pro Asp Tyr Tyr Gly Ser Ser Tyr Pro Leu Tyr Tyr Ala Met
            100   105   110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 426

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

<220>
<223> Synthetic Construct

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

<210> 427
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 427
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
            20   25   30
Glu Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Val Ile Asp Pro Glu Thr Gly Gly Thr Ala Tyr Asn Ala Pro Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Thr Ser Pro Asp Tyr Tyr Gly Ser Ser Tyr Pro Leu Tyr Tyr Ala Met
            100   105   110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

115 120 125

<210> 428
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 428
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30
Glu Met His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Val Ile Asp Pro Glu Thr Gly Gly Thr Ala Tyr Asn Pro Ser Leu
50 55 60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65 70 75 80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Thr Ser Pro Asp Tyr Tyr Gly Ser Ser Tyr Pro Leu Tyr Tyr Ala Met
100 105 110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 429
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

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


<210> 430
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 430
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20                  25                  30
Trp Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Glu Ile Arg Asp Lys Val Lys Asn His Ala Thr Tyr Tyr Ala Ala
    50                  55                  60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65                  70                  75                  80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Arg Leu Gly Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115


<210> 431
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 431
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20                  25                  30
Trp Met Gly Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Glu Ile Arg Asp Lys Val Lys Asn His Ala Thr Tyr Tyr Ala Asp
```

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

<210> 432
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 432

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

<210> 433
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 433

```
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
```

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


<210> 434
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 434
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20                  25                  30
Trp Met Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35                  40                  45
Ala Glu Ile Arg Asp Lys Val Lys Asn His Ala Thr Tyr Tyr Ala Gln
    50                  55                  60
Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr
65                  70                  75                  80
Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Arg Leu Gly Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115


<210> 435
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct
```

<400> 435
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Gly Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asp Lys Val Lys Asn His Ala Thr Tyr Tyr Ala Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr
65   70   75   80
Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Arg Leu Gly Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 436
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 436
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Gly Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asp Lys Val Lys Asn His Ala Thr Tyr Tyr Ala Pro
    50   55   60
Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr
65   70   75   80
Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr
                85   90   95
Tyr Cys Arg Leu Gly Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 437
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 437
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asp Lys Val Lys Asn His Ala Thr Tyr Tyr Ala Pro
    50   55   60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65   70   75   80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Arg Leu Gly Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 438
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 438
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Gly Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asp Lys Val Lys Asn His Ala Thr Tyr Tyr Ala Pro
    50   55   60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65   70   75   80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Arg Leu Gly Val Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 439
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 439
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Lys Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Asp Arg Ile Thr Cys Ser Arg Asp Asp Ser Glu Asn Met
65   70   75   80
Phe Tyr Leu Gln Leu Ser Ser Leu Lys Thr Glu Asp Thr Ala Met Tyr
                85   90   95
Tyr Cys Val Arg His Gly Asp Gly Asn Leu Trp Tyr Ile Asp Val Trp
            100   105   110
Gly Thr Gly Thr Thr Val Thr Val Ser Thr
        115   120

<210> 440
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 440
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Gly Asp Gly Asn Leu Trp Tyr Ile Asp Val Trp
            100   105   110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 441
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 441
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Gly Asp Gly Asn Leu Trp Tyr Ile Asp Val Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 442
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

```
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Val Arg His Gly Asp Gly Asn Leu Trp Tyr Ile Asp Val Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 443
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 443

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

<210> 444
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 444

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

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

<210> 445
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 445

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

<210> 446
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 446

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

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

<210> 447
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 447

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

<210> 448
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 449
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 449
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Val Ser Arg Tyr
            20   25   30
Trp Met His Trp Val Lys Gln Arg Pro Gly Arg Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Asp Pro Asn Ser Gly Gly Thr Lys Tyr Asn Glu Lys Phe
    50   55   60
Lys Thr Lys Ala Thr Leu Thr Val Asp Lys Pro Ser Ser Thr Ala Tyr
65   70   75   80
Met Gln Val Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
                85   90   95
Val Leu Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Thr Leu
            100   105   110
Thr Val Ser Ser
        115

<210> 450
<211> 116
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 450
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Val Ser Arg Tyr
            20   25   30
Trp Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Asp Pro Asn Ser Gly Gly Thr Lys Tyr Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Leu Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 451
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 451
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Val Ser Arg Tyr
            20   25   30
Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Asp Pro Asn Ser Gly Gly Thr Lys Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Leu Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 452
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<210> 453
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

```
            100                 105                 110
Thr Val Ser Ser
        115


<210> 454
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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


<210> 455
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 455
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Val Ser Arg Tyr
            20                  25                  30
Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Arg Ile Asp Pro Asn Ser Gly Gly Thr Lys Tyr Asn Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
```

65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Val Leu Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110
Thr Val Ser Ser
115

<210> 456
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 456
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Val Ser Arg Tyr
20 25 30
Trp Met His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Arg Ile Asp Pro Asn Ser Gly Gly Thr Lys Tyr Asn Pro Ser Leu
50 55 60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65 70 75 80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Val Leu Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110
Thr Val Ser Ser
115

<210> 457
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 457
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Val Ser Arg Tyr
20 25 30
Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile

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

<210> 458
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 458

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

<210> 459
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT

<222> 1
<223> Xaa = Glutamic acid or Glutamine

<400> 459
Xaa Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Lys Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Asp Arg Phe Thr Cys Ser Arg Asp Asp Ser Glu Asn Met
65   70   75   80
Phe Tyr Leu Gln Leu Ser Ser Leu Lys Thr Glu Asp Thr Ala Ile Tyr
                85   90   95
Tyr Cys Val Arg His Gly Asp Gly Asn Leu Trp Tyr Ile Asp Val Trp
            100   105   110
Gly Thr Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 460
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 460
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Lys Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Asp Arg Phe Thr Cys Ser Arg Asp Asp Ser Glu Asn Met
65   70   75   80
Phe Tyr Leu Gln Leu Ser Ser Leu Lys Thr Glu Asp Thr Ala Met Tyr
                85   90   95
Tyr Cys Val Arg His Gly Asp Gly Asn Leu Trp Tyr Ile Asp Val Trp
            100   105   110
Gly Thr Gly Thr Thr Val Thr Val Ser Ser
        115   120

<210> 461

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

<220>
<223> Synthetic Construct

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

<210> 462
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 462
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Pro Phe Ser Asn Phe
            20   25   30
Trp Ile Thr Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Ser Asn Tyr Asn Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 463
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 463
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Pro Phe Ser Asn Phe
20 25 30
Trp Ile Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Ser Asn Tyr Asn Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
100 105 110
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 464
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

```
                85                  90                  95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 465
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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


<210> 466
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 466
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Pro Phe Ser Asn Phe
            20                  25                  30
Trp Ile Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Ser Asn Tyr Asn Asp Ser Val
```

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

<210> 467
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 467

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

<210> 468
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 468

```
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Pro Phe Ser Asn Phe
```

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


<210> 469
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 469
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Pro Phe Ser Asn Phe
            20                  25                  30
Trp Ile Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Ser Asn Tyr Asn Ala Pro Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 470
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct
```

<400> 470
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Pro Phe Ser Asn Phe
            20   25   30
Trp Ile Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Ser Asn Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 471
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 6, 7, 11, 19, 20, 24, 72, 83, 87, 88, 90, 98
<223> Xaa = Glutamic acid or Glutamine

<220>
<221> VARIANT
<222> 18
<223> Xaa = Any Amino Acid

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

```
Tyr Xaa Val Arg His Lys Ser Asn Arg Tyr Pro Gly Val Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Ile Val Thr Val Ser
        115                 120
```

<210> 472
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 472

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

<210> 473
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 473

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

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

<210> 474
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 474

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

<210> 475
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 475

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Leu Thr Ser Asn Thr Tyr
            20                  25                  30
```

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

<210> 476
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 476

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

<210> 477
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 477

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


<210> 478
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 478
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1               5                  10                  15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Leu Thr Ser Asn Thr Tyr
            20                  25                  30
Thr Gln Thr Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Glu
        35                  40                  45
Ser Val Ile Arg Ser Lys Ser Asn Asn Phe Ser Thr Leu Tyr Ala Pro
    50                  55                  60
Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr
65                  70                  75                  80
Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr
                85                  90                  95
Tyr Cys Val Arg His Lys Ser Asn Arg Tyr Pro Gly Val Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 479
<211> 121
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Synthetic Construct

<400> 479
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Leu Thr Ser Asn Thr Tyr
            20   25   30
Thr Gln Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Glu
        35   40   45
Ser Val Ile Arg Ser Lys Ser Asn Asn Phe Ser Thr Leu Tyr Ala Pro
    50   55   60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65   70   75   80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Lys Ser Asn Arg Tyr Pro Gly Val Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 480
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 480
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Leu Thr Ser Asn Thr Tyr
            20   25   30
Thr Gln Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Glu
        35   40   45
Ser Val Ile Arg Ser Lys Ser Asn Asn Phe Ser Thr Leu Tyr Ala Pro
    50   55   60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65   70   75   80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Lys Ser Asn Arg Tyr Pro Gly Val Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 481

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

<220>
<223> Synthetic Construct

<400> 481
Glu Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Met Lys Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Asp Trp Val Arg Gln Ser Pro Glu Lys Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Ala Glu
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Thr
65   70   75   80
Val Tyr Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Gly Ile Tyr
                85   90   95
Tyr Cys Thr Ser Leu Tyr Asp Gly Tyr Tyr Leu Arg Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ala
        115   120

<210> 482
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 482
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Trp
        35   40   45
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Cys Thr Ser Leu Tyr Asp Gly Tyr Tyr Leu Arg Phe Ala Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 483
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 483
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
20 25 30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Trp
35 40 45
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Asp
50 55 60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
65 70 75 80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85 90 95
Tyr Cys Cys Thr Ser Leu Tyr Asp Gly Tyr Tyr Leu Arg Phe Ala Trp
100 105 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 484
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 484
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
20 25 30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Trp
35 40 45
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Asp
50 55 60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65 70 75 80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr

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


<210> 485
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 485
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20                  25                  30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Trp
        35                  40                  45
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Asp
    50                  55                  60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65                  70                  75                  80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Cys Thr Ser Leu Tyr Asp Gly Tyr Tyr Leu Arg Phe Ala Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 486
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 486
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20                  25                  30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Trp
        35                  40                  45
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Gln
```

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


<210> 487
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 487
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20                  25                  30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Trp
        35                  40                  45
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Gln
    50                  55                  60
Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr
65                  70                  75                  80
Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Cys Thr Ser Leu Tyr Asp Gly Tyr Tyr Leu Arg Phe Ala Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 488
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 488
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1               5                  10                  15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Phe Thr Phe Ser Asp Ala
```

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


<210> 489
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 489
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Ser Asp Ala
            20                  25                  30
Trp Met Asp Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Trp
        35                  40                  45
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Pro
    50                  55                  60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65                  70                  75                  80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Cys Thr Ser Leu Tyr Asp Gly Tyr Tyr Leu Arg Phe Ala Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 490
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct
```

<400> 490
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Asp Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Trp
        35   40   45
Val Ala Glu Ile Arg Asn Lys Val Asn Asn His Ala Thr Tyr Tyr Pro
    50   55   60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65   70   75   80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Cys Thr Ser Leu Tyr Asp Gly Tyr Tyr Leu Arg Phe Ala Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 491
<211> 102
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 36, 67, 81, 83
<223> Xaa = Glutamic acid or Glutamine

<400> 491
Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Thr Tyr Ser Met Asn
 1   5   10   15
Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala His Ile
            20   25   30
Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Asp Ser Val Lys
        35   40   45
Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Glu Ser Met Leu Tyr Leu
    50   55   60
Gln Met Xaa Asn Leu Lys Thr Glu Asp Thr Ala Met Tyr Tyr Cys Val
65   70   75   80
Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly Gln Gly Thr
                85   90   95
Leu Val Thr Val Ser Ala
            100

<210> 492

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

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 492
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Thr Tyr
            20   25   30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 493
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 493
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Thr Tyr
            20   25   30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val

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


<210> 494
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 494
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Thr Tyr
            20                  25                  30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Asp
    50                  55                  60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65                  70                  75                  80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 495
<211> 121
<212> PRT
<213> Artificial Sequence
```

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 495
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Thr Tyr
            20   25   30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 496
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 496
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Asn Thr Tyr
            20   25   30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35   40   45
Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr

65 70 75 80
Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
85 90 95
Tyr Cys Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 497
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 497
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Asn Thr Tyr
20 25 30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
35 40 45
Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Gln
50 55 60
Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr
65 70 75 80
Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
85 90 95
Tyr Cys Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 498
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>

<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 498
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Phe Thr Phe Asn Thr Tyr
            20   25   30
Ser Met Asn Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Pro
    50   55   60
Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr
65   70   75   80
Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr
                85   90   95
Tyr Cys Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 499
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 499
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Asn Thr Tyr
            20   25   30
Ser Met Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Pro
    50   55   60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65   70   75   80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly

```
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 500
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 55, 100, 102
<223> Xaa = Glutamic acid or Glutamine

<400> 500
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Asn Thr Tyr
            20                  25                  30
Ser Met Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala His Ile Lys Thr Lys Xaa Asn Asn Phe Ala Thr Phe Tyr Ala Pro
    50                  55                  60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65                  70                  75                  80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Val Xaa His Xaa Ser Asn Asn Tyr Pro Phe Ala Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 501
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 91
<223> Xaa = Glutamic acid or Glutamine
```

<400> 501
Gln Val Gln Leu Gln Gln Ser Gly Ala Val Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Lys Gln Arg Pro Gly Arg Gly Pro Glu Trp Ile
        35   40   45
Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn Glu Lys Phe
    50   55   60
Arg Asn Lys Ala Ile Leu Thr Val Asp Lys Pro Ser Ser Thr Ala Tyr
65   70   75   80
Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Xaa Ala Val Tyr Tyr Cys
                85   90   95
Val Arg Thr Asn Trp Asp Gly Asp Phe Trp Gly Gln Gly Thr Thr Leu
            100   105   110
Thr Val Ser Ser
        115

<210> 502
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 502
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Arg Thr Asn Trp Asp Gly Asp Phe Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 503
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 503
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Val Arg Thr Asn Trp Asp Gly Asp Phe Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 504
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 504
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Arg Thr Asn Trp Asp Gly Asp Phe Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 505
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 505
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Arg Thr Asn Trp Asp Gly Asp Phe Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 506
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 506
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Arg Thr Asn Trp Asp Gly Asp Phe Trp Gly Gln Gly Thr Leu Val
            100   105   110

Thr Val Ser Ser
        115

<210> 507
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 507
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Arg Thr Asn Trp Asp Gly Asp Phe Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 508
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 508
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Asn Asp Pro Asn Ser Gly Gly Ser Asn Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80

```
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Val Arg Thr Asn Trp Asp Gly Asp Phe Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115
```

<210> 509
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 509

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

<210> 510
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 510

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

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

<210> 511
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 511

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

<210> 512
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 512

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

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


<210> 513
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 513
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Asn Tyr
            20                  25                  30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp
            100                 105                 110
Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210> 514
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct
```

<400> 514
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ala Phe Ser Asn Tyr
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp
            100   105   110
Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 515
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 515
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Asn Tyr
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp
            100   105   110
Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 516
<211> 126
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 516
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ala Phe Ser Asn Tyr
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp
            100   105   110
Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 517
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 517
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ala Phe Ser Asn Tyr
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp
            100   105   110
Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 518
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 518
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ala Phe Ser Asn Tyr
            20   25   30
Trp Met Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp
            100   105   110
Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120   125

<210> 519
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 519
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ala Phe Ser Asn Tyr
            20   25   30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn Ala Pro Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp

```
            100                 105                 110
Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210> 520
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 520
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ala Phe Ser Asn Tyr
            20                  25                  30
Trp Met Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Gln Ile Tyr Pro Gly Asp Gly Asp Thr Lys Tyr Asn Pro Ser Leu
    50                  55                  60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65                  70                  75                  80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ser Arg Glu Lys Gly Ala Asp Tyr Tyr Gly Ser Thr Tyr Ser Ala Trp
            100                 105                 110
Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120                 125


<210> 521
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 521
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1               5                  10                  15
Ser Leu Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
            20                  25                  30
Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Glu Phe
    50                  55                  60
Arg Val Arg Ala Thr Leu Thr Ala Asp Thr Ser Ser Thr Thr Ala Tyr
```

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

<210> 522
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 522
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ala Phe Ser Ser Ser
20 25 30
Trp Met Asn Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Pro Ser Phe
50 55 60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65 70 75 80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
100 105 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 523
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 523
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
20 25 30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile

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


<210> 524
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 524
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
            20                  25                  30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100                 105                 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 525
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 525
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
```

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

<210> 526
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 526

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

<210> 527
<211> 123
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 527
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ala Phe Ser Ser Ser
            20   25   30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 528
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 528
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ala Phe Ser Ser Ser
            20   25   30
Trp Met Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 529
<211> 123

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 529
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ala Phe Ser Ser Ser
            20   25   30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Ala Pro Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 530
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 530
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ala Phe Ser Ser Ser
            20   25   30
Trp Met Asn Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 531
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 531
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Ile Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Lys Gln Arg Pro Gly Arg Gly Pro Glu Trp Ile
        35   40   45
Gly Arg Ile Asp Pro Asn Asn Gly Asp Thr Asn Tyr Asn Glu Lys Phe
    50   55   60
Lys Thr Lys Ala Thr Leu Thr Val Asp Lys Pro Ser Ser Thr Ala Asp
65   70   75   80
Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
                85   90   95
Val Met Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Thr Leu
            100   105   110
Thr Val Ser Ser
        115

<210> 532
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 532
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ile Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Asp Pro Asn Asn Gly Asp Thr Asn Tyr Asn Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95

```
Val Met Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115


<210> 533
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 533
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ile Phe Thr Thr Tyr
            20                  25                  30
Trp Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45
Gly Arg Ile Asp Pro Asn Asn Gly Asp Thr Asn Tyr Asn Gln Lys Phe
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Val Met Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115


<210> 534
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 534
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ile Phe Thr Thr Tyr
            20                  25                  30
Trp Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45
Gly Arg Ile Asp Pro Asn Asn Gly Asp Thr Asn Tyr Asn Gln Lys Phe
    50                  55                  60
```

```
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Val Met Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115
```

<210> 535
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 535

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

<210> 536
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 536

```
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ile Phe Thr Thr Tyr
            20                  25                  30
```

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

<210> 537
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 537

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

<210> 538
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 538

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

<210> 539
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 539

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

<210> 540
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 540
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ile Phe Thr Thr Tyr
            20   25   30
Trp Ile His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Asp Pro Asn Asn Gly Asp Thr Asn Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Met Thr Gly Thr Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 541
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 541
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Val Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Met Ser Cys Lys Thr Ser Gly Tyr Pro Phe Ser Asn Phe
            20   25   30
Trp Ile Thr Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Val Trp Ile
        35   40   45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn Glu Arg Phe
    50   55   60
Lys Thr Lys Ala Thr Leu Thr Val Asp Thr Ser Ser Ser Thr Ala Tyr
65   70   75   80
Met His Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
                85   90   95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ala
        115   120

<210> 542

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

<220>
<223> Synthetic Construct

<400> 542
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Pro Phe Ser Asn Phe
            20   25   30
Trp Ile Thr Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 543
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 543
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Pro Phe Ser Asn Phe
            20   25   30
Trp Ile Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100   105   110
Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 544
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 544
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Pro Phe Ser Asn Phe
20 25 30
Trp Ile Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
100 105 110
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 545
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 545
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Pro Phe Ser Asn Phe
20 25 30
Trp Ile Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn Asp Ser Val
50 55 60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys

```
                85                  90                  95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 546
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 546
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Pro Phe Ser Asn Phe
            20                  25                  30
Trp Ile Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 547
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 547
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Pro Phe Ser Asn Phe
            20                  25                  30
Trp Ile Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn Asp Ser Val
```

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

<210> 548
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 548

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

<210> 549
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 549

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Pro Phe Ser Asn Phe
```

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


<210> 550
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 550
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Pro Phe Ser Asn Phe
            20                  25                  30
Trp Ile Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Asp Ile Tyr Pro Gly Ser Asp Asn Arg Asn Phe Asn Pro Ser Leu
    50                  55                  60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65                  70                  75                  80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Glu Ala Tyr Tyr Thr Asn Pro Gly Phe Ala Tyr Trp Gly Gln
            100                 105                 110
Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 551
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct
```

<400> 551
Glu Val Gln Leu Val Glu Ser Gly Gly Arg Leu Val Gln Pro Lys Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Glu Ser Met
65   70   75   80
Leu Tyr Leu Gln Met Asn Asn Leu Lys Thr Glu Asp Thr Ala Met Tyr
                85   90   95
Tyr Cys Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ala
        115   120

<210> 552
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 552
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Ala
    50   55   60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 553
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 553
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 554
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 554
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 555
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 555
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 556
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 556
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr
65   70   75   80
Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr Trp
            100   105   110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 557
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 557
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr
65   70   75   80
Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 558
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 558
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Asn Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Arg Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Tyr Tyr Ala Pro
    50   55   60
Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr
65   70   75   80

```
Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr
                85                  90                  95
Tyr Cys Val Arg His Tyr Ser Asn Tyr Gly Trp Gly Phe Ala Tyr Trp
            100                 105                 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 559
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 559

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

<210> 560
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 560

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

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

<210> 561
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 95
<223> Xaa = Glutamic acid or Glutamine

<400> 561

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

<210> 562
<211> 119
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 562
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20   25   30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 563
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 563
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Ser Asp Tyr
            20   25   30
Tyr Ile His Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Pro Ser Phe
    50   55   60
Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr Ala Tyr
65   70   75   80
Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 564
<211> 119

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 564
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20   25   30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 565
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 565
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20   25   30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 566
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 566
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20   25   30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 567
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 567
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20   25   30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95

```
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr Trp Gly Gln Gly
            100                 105                 110
Thr Leu Val Thr Val Ser Ser
        115


<210> 568
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 568
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Phe Ser Asp Tyr
            20                  25                  30
Tyr Ile His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Pro Ser Leu
    50                  55                  60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65                  70                  75                  80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr Trp Gly Gln Gly
            100                 105                 110
Thr Leu Val Thr Val Ser Ser
        115


<210> 569
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 569
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Ser Asp Tyr
            20                  25                  30
Tyr Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Ala Pro Val
    50                  55                  60
```

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

<210> 570
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 570
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Phe Ser Asp Tyr
20 25 30
Tyr Ile His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45
Gly Tyr Ile Tyr Pro Asn Asn Gly Asp Asn Gly Tyr Asn Pro Ser Leu
50 55 60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65 70 75 80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Arg Gly Tyr Tyr Gly Gly Ser Tyr Asp Tyr Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ser
115

<210> 571
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 571
Trp Arg Ile Gly Gln Gly Lys Gly Ser Leu Lys Leu Ala Arg Ala Ala
1 5 10 15
Arg Gly Phe Arg Phe Asn Thr Tyr Ala Met Thr Arg Val Arg Gln Gly
20 25 30

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

<210> 572
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 572

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

<210> 573
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 573

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

<210> 574
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 574

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

<210> 575
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 575
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Arg Phe Asn Thr Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Glu
        35   40   45
Gly Val Ile Arg Arg Lys Ser Ser Asn Phe Ala Thr Leu Tyr Ala Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Lys Ser Asn Lys Tyr Pro Phe Val Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 576
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 576
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Arg Phe Asn Thr Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Glu
        35   40   45
Gly Val Ile Arg Arg Lys Ser Ser Asn Phe Ala Thr Leu Tyr Ala Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr
65   70   75   80
Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Lys Ser Asn Lys Tyr Pro Phe Val Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 577

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

<220>
<223> Synthetic Construct

<400> 577
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Arg Phe Asn Thr Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Glu
        35   40   45
Gly Val Ile Arg Arg Lys Ser Ser Asn Phe Ala Thr Leu Tyr Ala Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr
65   70   75   80
Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Arg His Lys Ser Asn Lys Tyr Pro Phe Val Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 578
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 578
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Phe Arg Phe Asn Thr Tyr
            20   25   30
Ala Met Thr Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Glu
        35   40   45
Gly Val Ile Arg Arg Lys Ser Ser Asn Phe Ala Thr Leu Tyr Ala Pro
    50   55   60
Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr
65   70   75   80
Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr
                85   90   95
Tyr Cys Val Arg His Lys Ser Asn Lys Tyr Pro Phe Val Tyr Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 579
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 579
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Arg Phe Asn Thr Tyr
20 25 30
Ala Met Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Glu
35 40 45
Gly Val Ile Arg Arg Lys Ser Ser Asn Phe Ala Thr Leu Tyr Ala Pro
50 55 60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65 70 75 80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
85 90 95
Tyr Cys Val Arg His Lys Ser Asn Lys Tyr Pro Phe Val Tyr Trp Gly
100 105 110
Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 580
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 580
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Arg Phe Asn Thr Tyr
20 25 30
Ala Met Thr Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Glu
35 40 45
Gly Val Ile Arg Arg Lys Ser Ser Asn Phe Ala Thr Leu Tyr Ala Pro
50 55 60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65 70 75 80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr

```
                85                  90                  95
Tyr Cys Val Arg His Lys Ser Asn Lys Tyr Pro Phe Val Tyr Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 581
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 581
```
Lys Ser Ser Gln Ser Val Phe Tyr Ser Ser Asn Gln Lys Asn Tyr Leu
 1               5                  10                  15
Ala
```

<210> 582
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 582
```
His Gln Tyr Leu Ser Ser Leu Thr
 1               5
```

<210> 583
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 583
```
Ser Gln Ser Thr His Val Pro Pro Thr
 1               5
```

<210> 584
<211> 9

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 584
Tyr Ser Phe Thr Gly Tyr Tyr Met His
 1   5

<210> 585
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 585
Val Ala Glu Ile Arg Asn Lys Ile Asn Asn His Ala Thr Tyr Tyr Ala
 1   5   10   15

<210> 586
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 586
Ile Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys
 1   5   10

<210> 587
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 587
Ile Gly Arg Val Asn Pro Asn Asn Gly Gly Thr Ser Tyr Asn
 1   5   10

<210> 588
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 588
Thr Ser Leu Tyr Asp Gly Ser Tyr Leu Arg Phe Ala Tyr
 1   5   10

<210> 589
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 589
Val Leu Thr Gly Gly Tyr Phe Asp Tyr
 1   5

<210> 590
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 590
Gln Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Ala Gly Glu Lys Val
 1   5   10   15
Thr Leu Ser Cys
            20

<210> 591
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 591

Gln Thr Gln Val Phe Leu Ser Leu Leu Leu Trp Val Ser Gly Thr Cys
 1   5   10   15
Gly Asn Ile Met Leu Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Ala
            20   25   30
Gly Glu Lys Val Thr Leu Ser Cys
        35   40

<210> 592
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 592
Asp Ile Val Met Ser Gln Ser Pro Ser Ser Leu Ala Val Ser Val Gly
 1   5   10   15
Glu Lys Val Thr Met Ser Cys
            20

<210> 593
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 593
Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Ser
 1   5   10   15

<210> 594
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 594
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Phe Gly Thr Asp Phe Thr
 1   5   10   15
Leu Thr Ile Ser Ser Val Gln Gly Glu Asp Leu Ala Val Tyr Tyr Cys
            20   25   30

<210> 595
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 595
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Leu Thr Ile Asn Ser Val Gln Ala Glu Asp Leu Ala Val Tyr Tyr Cys
            20   25   30

<210> 596
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 596
Gly Val Gln Ser Glu Val Lys Phe Glu Glu Ser Gly Gly Gly Leu Val
 1   5   10   15
Gln Pro Gly Gly Ser Met Lys Leu Ser Cys Thr Ala Ser Gly
            20   25   30

<210> 597
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 597
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Ile Ser Cys Lys Thr Ser Gly
            20   25

<210> 598
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 598
Gln Val Gln Leu Gln Gln Ser Gly Pro Asp Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly
            20   25

<210> 599
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 599
Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser
 1   5   10   15
Ser Val Ser Leu Gln Met Asn Ser Leu Arg Thr Glu Asp Thr Gly Ile
            20   25   30
Tyr Tyr Cys
        35

<210> 600
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 600
Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Arg Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 601
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 601
Gln Lys Phe Lys Gly Lys Ala Ile Leu Thr Val Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 602
<211> 129
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 602
Gln Thr Gln Val Phe Leu Ser Leu Leu Leu Trp Val Ser Gly Thr Cys
 1   5   10   15
Gly Asn Ile Met Leu Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Ala
            20   25   30
Gly Glu Lys Val Thr Leu Ser Cys Lys Ser Ser Gln Ser Val Phe Tyr
        35   40   45
Ser Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly
    50   55   60
Gln Ser Pro Lys Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly
65   70   75   80
Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu
                85   90   95
Thr Ile Asn Ser Val Gln Ala Glu Asp Leu Ala Val Tyr Tyr Cys His
            100   105   110
Gln Tyr Leu Ser Ser Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu
        115   120   125
Lys

<210> 603
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 603

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

<210> 604
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 604

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

<210> 605
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 605

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

<210> 606
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 606

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

<210> 607
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 607

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

<210> 608
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 608

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

<210> 609
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 609

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


<210> 610
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 610
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20                  25                  30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35                  40                  45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50                  55                  60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65                  70                  75                  80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln
                85                  90                  95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 611
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 611
```

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

<210> 612
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 612

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

<210> 613
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 613

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

<210> 614
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 614

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

<210> 615
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 615
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Leu Gln Lys Pro Gly Gln
        35   40   45
Ser Pro Gln Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65   70   75   80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 616
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 616
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Phe Gln Gln Arg Pro Gly Gln
        35   40   45
Ser Pro Arg Arg Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65   70   75   80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 617

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

<220>
<223> Synthetic Construct

<400> 617
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 618
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 618
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 619
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 619
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
                85   90   95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100   105   110
Lys

<210> 620
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 620
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Cys Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln

```
                85                  90                  95
Tyr Tyr Ser Tyr Pro Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
            100                 105                 110
Lys
```

<210> 621
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 621

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

<210> 622
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 622

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

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

<210> 623
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 623

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

<210> 624
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 624

```
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1               5                  10                  15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
```

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


<210> 625
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 625
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1               5                  10                  15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu His Trp Phe Gln Gln Arg Pro Gly Gln Ser
        35                  40                  45
Pro Arg Arg Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85                  90                  95
Thr His Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 626
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 626
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1               5                  10                  15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
```

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


<210> 627
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 627
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1               5                  10                  15
Glu Arg Ala Thr Ile Asn Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Pro
        35                  40                  45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
65                  70                  75                  80
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Ser Gln Ser
                85                  90                  95
Thr His Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 628
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 628
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
```

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

<210> 629
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 629

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

<210> 630
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 630

```
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
```

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

<210> 631
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 631

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

<210> 632
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 632

```
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1               5                  10                  15
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Ser Leu Val His Ser
```

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


<210> 633
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 633
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Gln Gln Lys Pro Gly Gln Ala
        35                  40                  45
Pro Arg Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Ile Pro
    50                  55                  60
Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65                  70                  75                  80
Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys Ser Gln Ser
                85                  90                  95
Thr His Val Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210> 634
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 634
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1               5                  10                  15
Glu Arg Ala Thr Leu Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
```

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

<210> 635
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 635

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

<210> 636
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 636

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

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

<210> 637
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 637

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

<210> 638
<211> 121
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 638
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Lys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Gly His Lys Ile Asn Asn Tyr Pro Phe Ala His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 639
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 639
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Lys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Gly His Lys Ile Asn Asn Tyr Pro Phe Ala His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 640
<211> 121

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 640
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Lys Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Gly His Lys Ile Asn Asn Tyr Pro Phe Ala His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 641
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 641
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Lys Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr
65   70   75   80
Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Gly His Lys Ile Asn Asn Tyr Pro Phe Ala His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 642
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 642
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Lys Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr
65   70   75   80
Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Val Gly His Lys Ile Asn Asn Tyr Pro Phe Ala His Trp Gly
            100   105   110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 643
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 643
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Phe Asn Phe Asn Thr Tyr
            20   25   30
Ala Met Lys Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser Pro
    50   55   60
Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr
65   70   75   80
Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr
                85   90   95

```
Tyr Cys Val Gly His Lys Ile Asn Asn Tyr Pro Phe Ala His Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 644
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 644
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Asn Phe Asn Thr Tyr
            20                  25                  30
Ala Met Lys Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser Pro
    50                  55                  60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65                  70                  75                  80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
                85                  90                  95
Tyr Cys Val Gly His Lys Ile Asn Asn Tyr Pro Phe Ala His Trp Gly
            100                 105                 110
Gln Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210> 645
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 645
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1               5                  10                  15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Asn Phe Asn Thr Tyr
            20                  25                  30
Ala Met Lys Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Ala Arg Ile Arg Ser Asn Ser Asn Asp Tyr Ala Thr Asn Tyr Ser Pro
    50                  55                  60
```

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

<210> 646
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 646

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

<210> 647
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 647

```
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20                  25                  30
```

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

<210> 648
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 648

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

<210> 649
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 649

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

<210> 650
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 650

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

<210> 651
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 651
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asn Lys Ile Asn Asn His Ala Thr Tyr Tyr Ala Asp
    50   55   60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
65   70   75   80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Thr Ser Leu Tyr Asp Gly Ser Tyr Leu Arg Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 652
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 652
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asn Lys Ile Asn Asn His Ala Thr Tyr Tyr Ala Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr
65   70   75   80
Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Thr Ser Leu Tyr Asp Gly Ser Tyr Leu Arg Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 653

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

<220>
<223> Synthetic Construct

<400> 653
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asn Lys Ile Asn Asn His Ala Thr Tyr Tyr Ala Gln
    50   55   60
Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr
65   70   75   80
Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr
                85   90   95
Tyr Cys Thr Ser Leu Tyr Asp Gly Ser Tyr Leu Arg Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 654
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 654
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Phe Thr Phe Ser Asp Ala
            20   25   30
Trp Met Asp Trp Val Arg Gln Met Pro Gly Lys Gly Leu Glu Trp Val
        35   40   45
Ala Glu Ile Arg Asn Lys Ile Asn Asn His Ala Thr Tyr Tyr Ala Pro
    50   55   60
Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile Ser Thr
65   70   75   80
Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala Met Tyr
                85   90   95
Tyr Cys Thr Ser Leu Tyr Asp Gly Ser Tyr Leu Arg Phe Ala Tyr Trp
            100   105   110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 655
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 655
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Ser Asp Ala
20 25 30
Trp Met Asp Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Glu Ile Arg Asn Lys Ile Asn Asn His Ala Thr Tyr Tyr Ala Pro
50 55 60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65 70 75 80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr
85 90 95
Tyr Cys Thr Ser Leu Tyr Asp Gly Ser Tyr Leu Arg Phe Ala Tyr Trp
100 105 110
Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 656
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 656
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1 5 10 15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Ser Asp Ala
20 25 30
Trp Met Asp Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Val
35 40 45
Ala Glu Ile Arg Asn Lys Ile Asn Asn His Ala Thr Tyr Tyr Ala Pro
50 55 60
Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln
65 70 75 80
Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr

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


<210> 657
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 657
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Tyr
            20                  25                  30
Thr Met His Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
        35                  40                  45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Gln Lys Phe
    50                  55                  60
Lys Gly Lys Ala Thr Leu Thr Val Asp Arg Ser Ser Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100                 105                 110
Thr Ser Val Thr Val Ser Ser
        115


<210> 658
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 658
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20                  25                  30
Thr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Gln Lys Phe
```

```
    50                  55                  60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100                 105                 110
Thr Leu Val Thr Val Ser Ser
        115
```

<210> 659
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 659

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

<210> 660
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 660

```
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Glu
 1               5                  10                  15
Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr Glu Tyr
```

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


<210> 661
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 661
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20                  25                  30
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Asp Ser Val
    50                  55                  60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65                  70                  75                  80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100                 105                 110
Thr Leu Val Thr Val Ser Ser
        115


<210> 662
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct
```

<400> 662
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 663
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 663
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 664
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 664
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 665
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 665
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 666
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 666
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Ala Pro Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ser
        115

<210> 667
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 667
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Thr Phe Thr Glu Tyr
            20   25   30
Thr Met His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Gly Ile Asn Pro Asn Asn Gly Gly Thr Ser Tyr Lys Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Gly Gly Ser His Tyr Tyr Ala Met Asp Tyr Trp Gly Gln Gly
            100   105   110

Thr Leu Val Thr Val Ser Ser
        115

<210> 668
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 668
Gln Val Gln Leu Gln Gln Ser Gly Pro Asp Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Gly Tyr
            20   25   30
Tyr Met His Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
        35   40   45
Gly Arg Val Asn Pro Asn Asn Gly Gly Thr Ser Tyr Asn Gln Lys Phe
    50   55   60
Lys Gly Lys Ala Ile Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65   70   75   80
Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
                85   90   95
Val Leu Thr Gly Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Thr Leu
            100   105   110
Thr Val Ser Ser
        115

<210> 669
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 669
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Gly Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Val Asn Pro Asn Asn Gly Gly Thr Ser Tyr Asn Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80

```
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Val Leu Thr Gly Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100                 105                 110
Thr Val Ser Ser
        115
```

<210> 670
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 670

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

<210> 671
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 671

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

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

<210> 672
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 672

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

<210> 673
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 673

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

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

<210> 674
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 674

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

<210> 675
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 675
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ser Phe Thr Gly Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Val Asn Pro Asn Asn Gly Gly Thr Ser Tyr Asn Asp Ser Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Leu Thr Gly Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 676
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 676
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ser Phe Thr Gly Tyr
            20   25   30
Tyr Met His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Val Asn Pro Asn Asn Gly Gly Thr Ser Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Leu Thr Gly Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 677
<211> 116
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 677
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ser Phe Thr Gly Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Val Asn Pro Asn Asn Gly Gly Thr Ser Tyr Asn Ala Pro Val
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr Leu Tyr
65   70   75   80
Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Leu Thr Gly Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 678
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 678
Gln Leu Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
 1   5   10   15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Tyr Ser Phe Thr Gly Tyr
            20   25   30
Tyr Met His Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Val Asn Pro Asn Asn Gly Gly Thr Ser Tyr Asn Pro Ser Leu
    50   55   60
Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe Ser
65   70   75   80
Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Val Leu Thr Gly Gly Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val
            100   105   110
Thr Val Ser Ser
        115

<210> 679
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 679
Gln Thr Gln Ser Pro Ser Ser Leu Ala Val Ser Ala Gly Glu Lys Val
 1   5   10   15
Thr Leu Ser Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser Ser Asn Gln
            20   25   30
Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys
        35   40   45
Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val Pro Asp Arg
    50   55   60
Phe Thr Gly Ser Gly Phe Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser
65   70   75   80
Val Gln Gly Glu Asp Leu Ala Val Tyr Tyr Cys His Gln Tyr Leu Ser
                85   90   95
Ser Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
            100   105

<210> 680
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 680
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 681
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 681
Asp Ile Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1   5   10   15
Glu Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Leu Gln Lys Pro Gly Gln
        35   40   45
Ser Pro Gln Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65   70   75   80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 682
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 682
Asp Val Val Met Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Leu Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Phe Gln Gln Arg Pro Gly Gln
        35   40   45
Ser Pro Arg Arg Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65   70   75   80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 683
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 683
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Asp Asp Phe Ala Thr Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 684
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 684
Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 685
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 685
Glu Ile Val Met Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Ser Glu Asp Phe Ala Val Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 686
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 686
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Ile Ala Thr Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 687
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 687
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 688
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 688
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1   5   10   15
Asp Arg Val Thr Ile Thr Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
        35   40   45
Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50   55   60
Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 689
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 689
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ser Ser Gln Ser Val Phe Tyr Ser
            20   25   30
Ser Asn Gln Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35   40   45
Ala Pro Arg Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Ile
    50   55   60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65   70   75   80
Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys His Gln
                85   90   95
Tyr Leu Ser Ser Leu Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 690
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 690
Ser Gln Asp Val Ser Thr Thr Val Ala
 1   5

<210> 691
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 691
Ser Gln Ser Ile Val His Ser Asn Gly Asn Thr Tyr Leu Glu
 1   5   10

<210> 692
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 692
Ser Gln Gly Val Ser Thr Ala Val Ala
 1   5

<210> 693
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 693
Ser Gln Asp Val Arg Thr Ala Val Ala
 1   5

<210> 694
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 694
Ser Glu Asn Val Val Thr Tyr Val Ser
 1   5

<210> 695
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 695

Ser Ala Ser Tyr Arg Tyr Thr
 1   5

<210> 696
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 696
Trp Ala Ser Thr Arg His Thr
 1   5

<210> 697
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 697
Gly Ala Ser Asn Arg Tyr Thr
 1   5

<210> 698
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 698
Gln Gln His Tyr Ser Thr Pro Pro Thr
 1   5

<210> 699
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 699
Phe Gln Gly Ser His Val Pro Phe Thr
 1   5

<210> 700
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 700
His Gln His Tyr Ser Thr Tyr Thr
 1   5

<210> 701
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 701
Gln Gln His Tyr Gly Thr Pro Pro Trp Thr
 1   5   10

<210> 702
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 702
Gly Gln Gly Tyr Ser Tyr Pro Tyr Thr
 1   5

<210> 703
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 703
Ser Arg Phe Thr Phe Ser Ser Tyr Ala Met Ser
 1   5   10

<210> 704
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 704
Ser Ala Phe Ser Leu Thr Asn Tyr Ala Val His
 1   5   10

<210> 705
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 705
Ser Arg Phe Thr Phe Ser Ser Tyr Ala Val Ser
 1   5   10

<210> 706
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 706
Val Ala Ala Ile Ser Gly Gly Gly Arg Tyr Thr Tyr Tyr Pro
 1   5   10

<210> 707
<211> 13
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 707
Leu Gly Val Ile Trp Ser Gly Gly Ser Thr Ala Phe Asn
 1   5   10

<210> 708
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 708
Val Ala Thr Ile Ser Gly Gly Gly Arg Tyr Thr Tyr Tyr Pro
 1   5   10

<210> 709
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 709
Ala Arg His Tyr Asp Gly Tyr Leu Asp Tyr
 1   5   10

<210> 710
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 710
Ala Thr His Tyr Tyr Arg Ser Thr Tyr Ala Phe Ser Tyr
 1   5   10

<210> 711

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

<220>
<223> Synthetic Construct

<400> 711
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
 1   5   10   15
Asp Arg Val Ser Ile Thr Cys Lys Ala
            20   25

<210> 712
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 712
Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Ser
            20   25

<210> 713
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 713
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Ile Gly
 1   5   10   15
Ala Arg Val Ser Ile Thr Cys Lys Ala
            20   25

<210> 714
<211> 25
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 714
Asp Ile Val Met Thr Gln Ser Pro Lys Ser Met Ser Met Ser Val Gly
 1   5   10   15
Glu Arg Val Thr Leu Thr Cys Lys Ala
            20   25

<210> 715
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 715
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Phe Gly Thr Asp Phe Thr
 1   5   10   15
Phe Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr Tyr Cys
            20   25   30

<210> 716
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 716
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Tyr Thr
 1   5   10   15
Leu Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Leu Tyr Tyr Cys
            20   25   30

<210> 717
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 717
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Ala Thr Asp Phe Thr
 1   5   10   15

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

<210> 718
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 718
Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1   5   10   15
Phe Thr Ile Ser Ser Val Gln Ala Glu Asp Leu Ala Val Tyr Tyr Cys
            20   25   30

<210> 719
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 719
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Glu Ala
            20

<210> 720
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 720
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Gln Pro Ser Gln
 1   5   10   15
Ser Leu Ser Ile Ile Cys Thr Val
            20

<210> 721

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

<220>
<223> Synthetic Construct

<400> 721
Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp
 1   5   10

<210> 722
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 722
Asp Ser Met Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 1   5   10   15
Phe Leu Tyr Leu Gln Met Ser Ser Leu Arg Ser Glu Asp Thr Ala Met
            20   25   30
Tyr Tyr Cys
        35

<210> 723
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 723
Ala Ala Phe Ile Ser Arg Leu Asn Ile Ser Lys Asp Asn Ser Lys Ser
 1   5   10   15
Gln Val Phe Phe Lys Met Asn Ser Leu Gln Ser Asp Asp Thr Ala Ile
            20   25   30
Tyr Tyr Cys
        35

<210> 724
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 724
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
 1   5   10   15
Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Thr Thr
            20   25   30
Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
        35   40   45
Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Asp Arg Phe Thr Gly
    50   55   60
Ser Gly Phe Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Val Gln Ala
65   70   75   80
Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln His Tyr Ser Thr Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 725
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 725
Asp Val Leu Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Ile Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Tyr Cys Phe Gln Gly
                85   90   95
Ser His Val Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 726
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 726
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
 1   5   10   15
Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Gly Val Ser Thr Ala
            20   25   30
Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
        35   40   45
Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Val Gln Ala
65   70   75   80
Glu Asp Leu Ala Leu Tyr Tyr Cys His Gln His Tyr Ser Thr Tyr Thr
                85   90   95
Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 727
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 727
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Ile Gly
 1   5   10   15
Ala Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Thr Ala
            20   25   30
Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
        35   40   45
Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Asp Arg Phe Thr Gly
    50   55   60
Ser Gly Phe Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Val Gln Ala
65   70   75   80
Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln His Tyr Gly Thr Pro Pro
                85   90   95
Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 728
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 728
Asp Ile Val Met Thr Gln Ser Pro Lys Ser Met Ser Met Ser Val Gly
 1   5   10   15
Glu Arg Val Thr Leu Thr Cys Lys Ala Ser Glu Asn Val Val Thr Tyr
            20   25   30
Val Ser Trp Tyr Gln Gln Lys Pro Glu Gln Ser Pro Lys Leu Leu Ile
        35   40   45
Tyr Gly Ala Ser Asn Arg Tyr Thr Gly Val Pro Asp Arg Phe Thr Gly
    50   55   60
Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr Ile Ser Ser Val Gln Ala
65   70   75   80
Glu Asp Leu Ala Asp Tyr His Cys Gly Gln Gly Tyr Ser Tyr Pro Tyr
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 729
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 729
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Ile Gly
 1   5   10   15
Ala Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Thr Ala
            20   25   30
Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
        35   40   45
Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Asp Arg Phe Thr Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Val Gln Ala
65   70   75   80
Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln His Tyr Gly Thr Pro Pro
                85   90   95
Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 730
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 730
Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
 1   5   10   15
Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Thr Thr
            20   25   30
Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
        35   40   45
Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Asp Arg Phe Thr Gly
    50   55   60
Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Val Gln Ala
65   70   75   80
Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln His Tyr Ser Thr Pro Pro
                85   90   95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105

<210> 731
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 731
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Glu Ala Ser Arg Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
        35   40   45
Ala Ala Ile Ser Gly Gly Gly Arg Tyr Thr Tyr Tyr Pro Asp Ser Met
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Phe Leu Tyr
65   70   75   80
Leu Gln Met Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg His Tyr Asp Gly Tyr Leu Asp Tyr Trp Gly Gln Gly Thr Thr
            100   105   110
Leu Thr Val Ser Ser
        115

<210> 732
<211> 119

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 732
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Gln Pro Ser Gln
 1   5   10   15
Ser Leu Ser Ile Ile Cys Thr Val Ser Ala Phe Ser Leu Thr Asn Tyr
            20   25   30
Ala Val His Trp Ile Arg Gln Ser Pro Gly Lys Gly Leu Glu Trp Leu
        35   40   45
Gly Val Ile Trp Ser Gly Gly Ser Thr Ala Phe Asn Ala Ala Phe Ile
    50   55   60
Ser Arg Leu Asn Ile Ser Lys Asp Asn Ser Lys Ser Gln Val Phe Phe
65   70   75   80
Lys Met Asn Ser Leu Gln Ser Asp Asp Thr Ala Ile Tyr Tyr Cys Ala
                85   90   95
Thr His Tyr Tyr Arg Ser Thr Tyr Ala Phe Ser Tyr Trp Gly Gln Gly
            100   105   110
Thr Leu Val Thr Val Ser Ala
        115

<210> 733
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 733
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1   5   10   15
Ser Leu Lys Leu Ser Cys Glu Ala Ser Arg Phe Thr Phe Ser Ser Tyr
            20   25   30
Ala Val Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
        35   40   45
Ala Thr Ile Ser Gly Gly Gly Arg Tyr Thr Tyr Tyr Pro Asp Ser Met
    50   55   60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Phe Leu Tyr
65   70   75   80
Leu Gln Met Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
                85   90   95
Ala Arg His Tyr Asp Gly Tyr Leu Asp Tyr Trp Gly Gln Gly Thr Thr
            100   105   110
Leu Thr Val Ser Ser
        115

<210> 734
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 734
Ser Gln Ser Leu Val His Ser Asn Gly Asn Thr Tyr Leu His
 1   5   10

<210> 735
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 735
Ser Gln Ser Leu Val His Ser Asn Gly Asp Thr Tyr Leu His
 1   5   10

<210> 736
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 736
Ser Glu Ser Val Asp Tyr His Gly Thr Ser Leu Met Gln
 1   5   10

<210> 737
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>

<221> VARIANT
<222> 5
<223> Xaa = Glutamic acid or Glutamine

<400> 737
Ser Glu Asn Ile Xaa Tyr Ser Leu Ala
 1   5

<210> 738
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 738
Arg Ala Ser Gln Ser Ile Gly Thr Ser Ile His
 1   5   10

<210> 739
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 739
Lys Val Ser Asn Arg Val Ser
 1   5

<210> 740
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 740
Lys Val Ser Asp Arg Phe Ser
 1   5

<210> 741
<211> 7

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 741
Ala Ala Ser Asn Val Glu Ser
 1   5

<210> 742
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 742
Asn Ala Asn Ser Leu Glu Asp
 1   5

<210> 743
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 743
Phe Ala Ser Glu Ser Ile Ser
 1   5

<210> 744
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 744
Gln Gln Asn Arg Lys Ile Leu Trp Thr
 1   5

<210> 745
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 745
Lys Gln Ala Tyr Asp Val Pro Trp Thr
 1   5

<210> 746
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 746
Gln Gln Thr Asn Thr Trp Pro Ile Thr
 1   5

<210> 747
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 747
Ser Gly Tyr Thr Phe Thr Asp Phe Tyr Met Asn
 1   5   10

<210> 748
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 748
Ser Gly Tyr Thr Phe Thr Ala Tyr Trp Met His
 1   5   10

<210> 749
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 749
Ser Gly Phe Asn Ile Lys Asn Thr Tyr Ile His
 1   5   10

<210> 750
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 750
Ser Gly Tyr Thr Phe Thr Asn Tyr Trp Ile His
 1   5   10

<210> 751
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 751
Ser Gly Tyr Thr Phe Thr Ser Ala Thr Met His
 1   5   10

<210> 752
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 752

Tyr Ser Phe Thr Asp Tyr Asn Ile His
 1   5

<210> 753
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 753
Phe Thr Leu Ser Asn Tyr Trp Met Asn
 1   5

<210> 754
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 754
Tyr Thr Phe Thr Asp Tyr Asn Ile His
 1   5

<210> 755
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 755
Ile Gly Asp Ile Asn Pro Asn Asn Gly His Thr Thr Tyr Asn
 1   5   10

<210> 756
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 756
Ile Gly Arg Thr His Pro Ser Asp Ser Asp Thr Asn Tyr Asn
 1   5   10

<210> 757
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 757
Ile Gly Arg Ile Asp Pro Ala Ile Gly Asn Thr Asn Tyr Ala
 1   5   10

<210> 758
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 758
Ile Gly Arg Ile His Pro Ser Asp Ser Asp Ile Asn Tyr Asn
 1   5   10

<210> 759
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 759
Ile Gly Tyr Ile Asn Pro Asn Ser Gly Tyr Ser Lys Tyr Asn
 1   5   10

<210> 760
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 760
Ile Gly Tyr Ile Asn Pro Asn Ser Asp Asn Thr Arg Tyr Ile
 1   5   10

<210> 761
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 761
Val Ala Gln Ile Arg Leu Lys Ser Asp Asn Tyr Ala Thr His Tyr Ala
 1   5   10   15

<210> 762
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 762
Ile Gly Tyr Ile Asn Pro Asn Asn Gly Gly Thr Thr Tyr Asn
 1   5   10

<210> 763
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 763
Ala Arg Glu Pro Tyr Ser Tyr Gly Ser Ser Pro Trp Tyr Phe Leu Val
 1   5   10   15

<210> 764
<211> 13
<212> PRT

<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 764
Ala Thr Tyr Ser Asn Tyr Val Thr Gly Ala Met Asp Ser
 1   5   10

<210> 765
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 765
Val Ser Pro Gly Met Asp Tyr
 1   5

<210> 766
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 766
Val Lys Thr Gly Thr Ser Phe Ala Ser
 1   5

<210> 767
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 767
Ala Arg Trp Gly Ile Asp Gly Asn Tyr Gly Gly Gly Phe Phe Asp Val
 1   5   10   15

<210> 768

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

<220>
<223> Synthetic Construct

<400> 768
Thr Arg Gly Phe Ser Asn Leu Gly Ala Met Asp Tyr
 1   5   10

<210> 769
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 769
Thr Gly Ala Gly Gly Asn His Glu Asn Tyr
 1   5   10

<210> 770
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 770
Ala Thr Thr Tyr Val Ser Phe Ser Tyr
 1   5

<210> 771
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1, 4
<223> Xaa = Glutamic acid or Glutamine

<400> 771
Xaa Val Val Xaa Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Phe Ser Cys Arg Ser
            20   25

<210> 772
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 772
Asn Ile Val Met Thr Gln Ser Pro Lys Ser Met Ser Met Ser Val Gly
 1   5   10   15
Glu Arg Val Thr Leu Thr Cys Lys Ala
            20   25

<210> 773
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 773
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Ser
            20   25

<210> 774
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 774
Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
 1   5   10   15
Gln Arg Ala Thr Ile Ser Cys Arg Ala

20 25

<210> 775
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 14
<223> Xaa = Glutamic acid or Glutamine

<400> 775
Asp Ile Gln Met Thr Gln Phe Pro Ala Ser Leu Ala Ala Xaa Val Gly
1 5 10 15
Glu Ser Val Thr Ile Thr Cys Arg Ala
20 25

<210> 776
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 776
Ile Leu Leu Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Pro Gly Glu
1 5 10 15
Arg Val Ser Phe Ser Cys
20

<210> 777
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 777
Trp Phe Leu Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile Phe
1 5 10 15

<210> 778
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 778
Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro Lys Leu Leu Ile Tyr
 1   5   10   15

<210> 779
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 779
Trp Tyr Gln Gln Lys Gln Gly Lys Ser Pro Gln Leu Leu Ile Tyr
 1   5   10   15

<210> 780
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 780
Trp Tyr Gln Gln Arg Thr Asn Gly Ser Pro Arg Leu Leu Ile Lys
 1   5   10   15

<210> 781
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 781
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr

```
 1               5                  10                  15
Leu Arg Ile Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys
            20                  25                  30


<210> 782
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 782
Gly Val Pro Ala Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ser
 1               5                  10                  15
Leu Asn Ile His Pro Val Glu Glu Asp Asp Ile Ala Met Tyr Phe Cys
            20                  25                  30


<210> 783
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 783
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Gln Tyr Ser
 1               5                  10                  15
Met Lys Ile Asn Ser Met Gln Pro Glu Asp Thr Ala Ile Tyr Phe Cys
            20                  25                  30


<210> 784
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 784
Gly Ile Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
 1               5                  10                  15
Leu Asn Ile Asn Ser Val Glu Ser Glu Asp Ile Ala Asp Tyr Tyr Cys
            20                  25                  30
```

<210> 785
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 4
<223> Xaa = Glutamic acid or Glutamine

<400> 785
Glu Val Gln Xaa Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Ile Ser Cys Lys Ala
            20

<210> 786
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 786
Gln Val Gln Leu Gln Gln Pro Gly Ala Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala
            20

<210> 787
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 787
Gln Val Gln Leu Gln Gln Ser Val Ala Glu Leu Val Arg Pro Gly Ala
 1   5   10   15
Ser Val Lys Leu Ser Cys Thr Ala
            20

<210> 788
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 788
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala
            20

<210> 789
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1, 2, 3, 4, 5
<223> Xaa = Any Amino Acid

<400> 789
Xaa Xaa Xaa Xaa Xaa Gln Ser Gly Thr Glu Leu Ala Arg Pro Gly Ala
 1   5   10   15
Ser Val Lys Met Pro Cys Lys Ala
            20

<210> 790
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 790
Gln Val Gln Leu Gln Gln Ser Gly Arg Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Met Ser Cys Met Ser Ser Gly
            20   25

<210> 791
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 791
Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1   5   10   15
Ser Met Lys Leu Ser Cys Val Ala Ser Gly
            20   25

<210> 792
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 792
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Gln Met Ser Cys Glu Ala Ser Gly
            20   25

<210> 793
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 793
Trp Val Lys Gln Ser Leu Gly Lys Ser Leu Glu Trp
 1   5   10

<210> 794
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 794
Trp Val Lys Glu Lys Pro Gly Gln Gly Leu Glu Trp
 1   5   10

<210> 795
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 795
Trp Val Lys Gln Arg Pro Glu Gln Gly Leu Glu Trp
 1   5   10

<210> 796
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 796
Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp
 1   5   10

<210> 797
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 797
Trp Val Ile Gln Ser His Gly Glu Ser Leu Glu Trp
 1   5   10

<210> 798
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 27
<223> Xaa = Glutamic acid or Glutamine

<400> 798
Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Glu Leu Arg Ser Leu Thr Xaa Glu Glu Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 799
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 799
His Asn Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 800
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 800
Pro Lys Phe Gln Ala Thr Ala Thr Ile Thr Val Ala Thr Ser Ser Asn
 1   5   10   15
Ser Ala Tyr Leu Gln Leu Ser Ser Leu Ala Ser Glu Asp Thr Ala Ile
            20   25   30
Tyr Tyr Cys
        35

<210> 801
<211> 36
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 801
Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Gln Ile Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala
            20   25   30
Val Tyr Tyr Cys
        35

<210> 802
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 802
Gln Lys Phe Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Gln Leu Ser Ser Leu Thr Ser Glu Glu Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 803
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 803
Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asn Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr Tyr Cys
        35

<210> 804
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 804
Glu Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser
 1   5   10   15
Ser Val Tyr Leu Gln Met Asn Asn Leu Arg Ala Val Asp Thr Gly Ile
            20   25   30
Tyr Tyr Cys
        35

<210> 805
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 805
Gln Lys Phe Lys Gly Lys Ala Thr Leu Thr Val Asn Lys Ser Ser Ser
 1   5   10   15
Thr Ala Tyr Ile Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val
            20   25   30
Tyr His Cys
        35

<210> 806
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 806
Arg Gly Thr Gly Thr Thr Val Thr Val
 1   5

<210> 807

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

<220>
<223> Synthetic Construct

<400> 807
Trp Gly His Gly Thr Ser Val Thr Val Ser Ser
 1   5   10

<210> 808
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 808
Trp Ser Gln Gly Thr Leu Val Thr Val Ser
 1   5   10

<210> 809
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1, 4
<223> Xaa = Glutamic acid or Glutamine

<400> 809
Xaa Val Val Xaa Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Phe Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Asn Thr Tyr Leu His Trp Phe Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Lys Leu Leu Ile Phe Lys Val Ser Asn Arg Val Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser

```
                85                  90                  95
Thr His Val Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
            100                 105                 110


<210> 810
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 810
Asn Ile Val Met Thr Gln Ser Pro Lys Ser Met Ser Met Ser Val Gly
 1               5                  10                  15
Glu Arg Val Thr Leu Thr Cys Lys Ala Ser Glu Asn Val Val Thr Tyr
            20                  25                  30
Val Ser Trp Tyr Gln Gln Lys Pro Glu Gln Ser Pro Lys Leu Leu Ile
        35                  40                  45
Tyr Gly Ala Ser Asn Arg Tyr Thr Gly Val Pro Asp Arg Phe Thr Gly
    50                  55                  60
Ser Gly Ser Ala Thr Asp Phe Thr Leu Thr Ile Ser Ser Val Gln Ala
65                  70                  75                  80
Glu Asp Leu Ala Asp Tyr His Cys Gly Gln Gly Tyr Ser Tyr Pro Tyr
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105


<210> 811
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 811
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1               5                  10                  15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20                  25                  30
Asn Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35                  40                  45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asp Arg Phe Ser Gly Val Pro
    50                  55                  60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Arg Ile
65                  70                  75                  80
Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
```

```
                85                  90                  95
Thr His Val Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
            100                 105                 110
```

<210> 812
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 812

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

<210> 813
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 813

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

```
                85                  90                  95
Lys Ile Leu Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110


<210> 814
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 14, 30
<223> Xaa = Glutamic acid or Glutamine

<400> 814
Asp Ile Gln Met Thr Gln Phe Pro Ala Ser Leu Ala Ala Xaa Val Gly
 1               5                  10                  15
Glu Ser Val Thr Ile Thr Cys Arg Ala Ser Glu Asn Ile Xaa Tyr Ser
            20                  25                  30
Leu Ala Trp Tyr Gln Gln Lys Gln Gly Lys Ser Pro Gln Leu Leu Ile
        35                  40                  45
Tyr Asn Ala Asn Ser Leu Glu Asp Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60
Ser Gly Ser Gly Thr Gln Tyr Ser Met Lys Ile Asn Ser Met Gln Pro
65                  70                  75                  80
Glu Asp Thr Ala Ile Tyr Phe Cys Lys Gln Ala Tyr Asp Val Pro Trp
                85                  90                  95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105


<210> 815
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 815
Ile Leu Leu Thr Gln Ser Pro Ala Ile Leu Ser Val Ser Pro Gly Glu
 1               5                  10                  15
Arg Val Ser Phe Ser Cys Arg Ala Ser Gln Ser Ile Gly Thr Ser Ile
            20                  25                  30
His Trp Tyr Gln Gln Arg Thr Asn Gly Ser Pro Arg Leu Leu Ile Lys
        35                  40                  45
```

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

<210> 816
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 816

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

<210> 817
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 4, 88
<223> Xaa = Glutamic acid or Glutamine

<400> 817

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

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

<210> 818
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 818

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

<210> 819
<211> 114
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic Construct

<400> 819
Gln Val Gln Leu Gln Gln Ser Val Ala Glu Leu Val Arg Pro Gly Ala
 1   5   10   15
Ser Val Lys Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys Asn Thr
            20   25   30
Tyr Ile His Trp Val Lys Gln Arg Pro Glu Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Asp Pro Ala Ile Gly Asn Thr Asn Tyr Ala Pro Lys Phe
    50   55   60
Gln Ala Thr Ala Thr Ile Thr Val Ala Thr Ser Ser Asn Ser Ala Tyr
65   70   75   80
Leu Gln Leu Ser Ser Leu Ala Ser Glu Asp Thr Ala Ile Tyr Tyr Cys
                85   90   95
Val Ser Pro Gly Met Asp Tyr Trp Gly His Gly Thr Ser Val Thr Val
            100   105   110
Ser Ser

<210> 820
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 820
Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
            20   25   30
Trp Ile His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile His Pro Ser Asp Ser Asp Ile Asn Tyr Asn Gln Lys Phe
    50   55   60
Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65   70   75   80
Met Gln Ile Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr
                85   90   95
Cys Val Lys Thr Gly Thr Ser Phe Ala Ser Trp Ser Gln Gly Thr Leu
            100   105   110
Val Thr Val Ser
        115

<210> 821
<211> 105

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 821
Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
 1   5   10   15
Glu Arg Ala Thr Leu Ser Cys Lys Ala Ser Ser Asn Val Asn Tyr Met
            20   25   30
Ser Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile Tyr
        35   40   45
Phe Thr Ser Asn Leu Pro Ser Gly Ile Pro Ala Arg Phe Ser Gly Ser
    50   55   60
Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro Glu
65   70   75   80
Asp Phe Ala Val Tyr Tyr Cys Ser Gly Glu Val Thr Gln Phe Thr Phe
                85   90   95
Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 822
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1, 2, 3, 4, 5
<223> Xaa = Any Amino Acid

<400> 822
Xaa Xaa Xaa Xaa Xaa Gln Ser Gly Thr Glu Leu Ala Arg Pro Gly Ala
 1   5   10   15
Ser Val Lys Met Pro Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Ala
            20   25   30
Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Tyr Ile Asn Pro Asn Ser Gly Tyr Ser Lys Tyr Asn Gln Lys Phe
    50   55   60
Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
65   70   75   80
Met Gln Leu Ser Ser Leu Thr Ser Glu Glu Ser Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Trp Gly Ile Asp Gly Asn Tyr Gly Gly Gly Phe Phe Asp Val

```
            100                 105                 110
Trp Gly Thr Gly Thr Thr Val Thr Val Ser Ser
        115                 120


<210> 823
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 823
Gln Val Gln Leu Gln Gln Ser Gly Arg Glu Leu Val Lys Pro Gly Ala
 1               5                  10                  15
Ser Val Lys Met Ser Cys Met Ser Ser Gly Tyr Ser Phe Thr Asp Tyr
            20                  25                  30
Asn Ile His Trp Val Ile Gln Ser His Gly Glu Ser Leu Glu Trp Ile
        35                  40                  45
Gly Tyr Ile Asn Pro Asn Ser Asp Asn Thr Arg Tyr Ile Gln Lys Phe
    50                  55                  60
Lys Gly Lys Ala Thr Leu Thr Val Asn Lys Ser Ser Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
                85                  90                  95
Thr Arg Gly Phe Ser Asn Leu Gly Ala Met Asp Tyr Trp Gly Gln Gly
            100                 105                 110
Thr Ser Val Thr Val Ser Ser
        115


<210> 824
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 824
Gln Val Lys Leu Glu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1               5                  10                  15
Ser Met Lys Leu Ser Cys Val Ala Ser Gly Phe Thr Leu Ser Asn Tyr
            20                  25                  30
Trp Met Asn Trp Val Arg Gln Ser Pro Glu Lys Gly Leu Glu Trp Val
        35                  40                  45
Ala Gln Ile Arg Leu Lys Ser Asp Asn Tyr Ala Thr His Tyr Ala Glu
    50                  55                  60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Ser Ser
```

65 70 75 80
Val Tyr Leu Gln Met Asn Asn Leu Arg Ala Val Asp Thr Gly Ile Tyr
85 90 95
Tyr Cys Thr Gly Ala Gly Gly Asn His Glu Asn Tyr Trp Gly Gln Gly
100 105 110
Thr Thr Leu Thr Val Ser Ser
115

<210> 825
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 825
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
1 5 10 15
Ser Val Gln Met Ser Cys Glu Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30
Asn Ile His Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
35 40 45
Gly Tyr Ile Asn Pro Asn Asn Gly Gly Thr Thr Tyr Asn Gln Lys Phe
50 55 60
Lys Gly Lys Ala Thr Leu Thr Val Asn Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80
Ile Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr His Cys
85 90 95
Ala Thr Thr Tyr Val Ser Phe Ser Tyr Trp Gly Gln Gly Thr Leu Val
100 105 110
Thr Val Ser Ala
115

<210> 826
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 2, 6, 9
<223> Xaa = Any Amino Acid

<400> 826

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

<210> 827
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 5, 6, 7, 12, 16
<223> Xaa = Any Amino Acid

<400> 827
Arg Ser Ser Gln Xaa Xaa Xaa His Ser Asn Gly Xaa Thr Tyr Leu Xaa
 1   5   10   15

<210> 828
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 6, 7, 8, 10, 11, 14, 15, 17
<223> Xaa = Any Amino Acid

<400> 828
Lys Ser Ser Gln Ser Xaa Xaa Xaa Ser Xaa Xaa Gln Lys Xaa Xaa Leu
 1   5   10   15
Xaa

<210> 829
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 2
<223> Xaa = T or S

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

<220>
<221> VARIANT
<222> 4
<223> Xaa = T ot S

<220>
<221> VARIANT
<222> 7, 8
<223> Xaa = Any Amino Acid

<400> 829
Tyr Xaa Xaa Xaa Xaa Tyr Xaa Xaa His
 1   5

<210> 830
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 5, 7, 8
<223> Xaa = Any Amino Acid

<400> 830
Tyr Thr Phe Thr Xaa Tyr Xaa Xaa His
 1   5

<210> 831
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 9
<223> Xaa = D or G

<400> 831
Phe Thr Phe Ser Asp Ala Trp Met Xaa
 1   5

<210> 832
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

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

<220>
<221> VARIANT
<222> 4
<223> Xaa = N or S

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

<220>
<221> VARIANT
<222> 7
<223> Xaa = A, S, or W

<220>
<221> VARIANT
<222> 9
<223> Xaa = N, K, or T

<400> 832

Phe Xaa Xaa Xaa Xaa Tyr Xaa Met Xaa
 1   5

<210> 833
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

<400> 833
Phe Xaa Phe Asn Thr Tyr Ala Met Asn
 1   5

<210> 834
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

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

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

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

<220>
<221> VARIANT
<222> 6
<223> Xaa = Any Amino Acid

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

<220>
<221> VARIANT
<222> 9
<223> Xaa = Any Amino Acid

<400> 834
Tyr Xaa Phe Xaa Xaa Xaa Trp Xaa Xaa
 1   5

<210> 835
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 2, 6, 9
<223> Xaa = Any Amino Acid

<400> 835
Tyr Xaa Phe Ser Asn Xaa Trp Ile Xaa
 1   5

<210> 836
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3, 4, 5
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 7
<223> Xaa = N or E

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

<220>
<221> VARIANT
<222> 9
<223> Xaa = G or D

<220>
<221> VARIANT
<222> 10
<223> Xaa = G, D, or N

<220>
<221> VARIANT
<222> 11
<223> Xaa = T, S, or N

<220>
<221> VARIANT
<222> 12
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 14
<223> Xaa = N, S, K, or I

<400> 836
Ile Gly Xaa Xaa Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Tyr Xaa
 1   5   10

<210> 837
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3, 4, 5, 12
<223> Xaa = Any Amino Acid

<400> 837

Ile Gly Xaa Xaa Xaa Pro Asn Asn Gly Gly Thr Xaa Tyr Asn
 1   5   10

<210> 838
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 6
<223> Xaa = N or D

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

<220>
<221> VARIANT
<222> 9
<223> Xaa = N or K

<400> 838
Val Ala Glu Ile Arg Xaa Lys Xaa Xaa Asn His Ala Thr Tyr Tyr Ala
 1   5   10   15

<210> 839
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 2
<223> Xaa = A or G

<220>
<221> VARIANT
<222> 3
<223> Xaa = Any Amino Acid

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

<220>
<221> VARIANT
<222> 6
<223> Xaa = S, T, R, or L

<220>
<221> VARIANT
<222> 7
<223> Xaa = K or N

<220>
<221> VARIANT
<222> 8
<223> Xaa = S, E, or Q

<220>
<221> VARIANT
<222> 9
<223> Xaa = N, S, or D

<220>
<221> VARIANT
<222> 10
<223> Xaa = N or D

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

<220>
<221> VARIANT
<222> 14
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 16
<223> Xaa = A or S

<400> 839
Xaa Xaa Xaa Ile Xaa Xaa Xaa Xaa Xaa Xaa Xaa Ala Thr Xaa Tyr Xaa
 1   5   10   15

<210> 840
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1, 3, 14
<223> Xaa = Any Amino Acid

<400> 840
Xaa Ala Xaa Ile Arg Ser Lys Ser Asn Asn Tyr Ala Thr Xaa Tyr Ala
 1   5   10   15

<210> 841
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3
<223> Xaa = Any Amino Acid

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

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

<220>
<221> VARIANT
<222> 8
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 9
<223> Xaa = G or D

<220>
<221> VARIANT
<222> 10
<223> Xaa = N or D

<220>
<221> VARIANT
<222> 11
<223> Xaa = T, R, or S

<220>
<221> VARIANT
<222> 12
<223> Xaa = N or K

<220>
<221> VARIANT
<222> 13
<223> Xaa = Y or F

<400> 841
Ile Gly Xaa Ile Xaa Pro Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asn
 1   5   10

<210> 842
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 3, 8
<223> Xaa = Any Amino Acid

<400> 842
Ile Gly Xaa Ile Tyr Pro Gly Xaa Gly Asp Thr Asn Tyr Asn
 1   5   10

<210> 843

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

<220>
<223> Synthetic Construct

<400> 843
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 844
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 844
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 845

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

<220>
<223> Synthetic Construct

<400> 845
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
            20   25   30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
        115   120

<210> 846
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 846
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
            20   25   30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Ala Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100   105   110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 847
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 847
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Leu Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
20 25 30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
100 105 110
Trp Gly Gln Gly Ala Leu Val Thr Val Ser Ser
115 120

<210> 848
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 848
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1 5 10 15
Leu Lys Ile Ser Arg Val Glu Ala Asp Asp Leu Gly Val Tyr Phe Cys
20 25 30

<210> 849
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 849
Asp Val Val Met Thr Gln Thr Pro Leu Thr Leu Ser Val Thr Ile Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser
            20   25   30
Asn Gly Lys Thr Phe Leu Ser Trp Leu Leu Gln Arg Pro Gly Gln Ser
        35   40   45
Pro Lys Arg Leu Ile Tyr Leu Val Ser Lys Leu Asp Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ala Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Leu Glu Ala Asp Asp Leu Gly Ile Tyr Tyr Cys Met Gln Gly
                85   90   95
Thr His Phe Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
            100   105   110

<210> 850
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 850
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Asp Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 851
<211> 126
<212> PRT
<213> Homo sapiens

<400> 851
Leu His Pro Leu Leu Leu Leu Leu Leu Leu Phe Pro Gly Ser Gln Ala
 1   5   10   15
Gln Ser Lys Ala Gln Val Leu Gln Ser Val Ala Gly Gln Thr Leu Thr
            20   25   30
Val Arg Cys Gln Tyr Pro Pro Thr Gly Ser Leu Tyr Glu Lys Lys Gly
        35   40   45
Trp Cys Lys Glu Ala Ser Ala Leu Val Cys Ile Arg Leu Val Thr Ser
    50   55   60
Ser Lys Pro Arg Thr Met Ala Trp Thr Ser Arg Phe Thr Ile Trp Asp
65   70   75   80
Asp Pro Asp Ala Gly Phe Phe Thr Val Thr Met Thr Asp Leu Arg Glu
                85   90   95
Glu Asp Ser Gly His Tyr Trp Cys Arg Ile Tyr Arg Pro Ser Asp Asn
            100   105   110
Ser Val Ser Lys Ser Val Arg Phe Tyr Leu Val Val Ser Pro
        115   120   125

<210> 852
<211> 132
<212> PRT
<213> Artificial Sequence

<220>
<223> Consensus Sequence

<220>
<221> VARIANT
<222> 1, 2, 5, 8, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 24,
26, 31, 33, 35, 37, 39, 40, 41, 42, 43, 44, 45, 46, 47,
49, 52, 53, 54, 55, 56, 57, 58, 59, 61, 63, 65, 66, 67,
68, 69, 70, 71, 72, 73, 74, 75, 76, 77, 79, 80, 81, 82,
83
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 85, 88, 89, 90, 92, 93, 95, 97, 98, 99, 101, 102, 103, 105,
107, 109, 111, 112, 113, 114, 115, 117, 118, 119, 120, 121,
122, 123, 125, 126, 127, 128, 129, 130, 131
<223> Xaa = Any Amino Acid

<400> 852
Xaa Xaa Pro Leu Xaa Leu Leu Xaa Leu Leu Phe Xaa Xaa Xaa Xaa Xaa
 1   5   10   15
Xaa Xaa Xaa Xaa Xaa Xaa Val Xaa Gln Xaa Val Ala Gly Gln Xaa Leu
            20   25   30
Xaa Val Xaa Cys Xaa Tyr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Lys
        35   40   45

Xaa Trp Cys Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Cys Xaa Arg Xaa Val
    50   55   60
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Trp Xaa Xaa
65   70   75   80
Xaa Xaa Xaa Ile Xaa Asp Asp Xaa Xaa Xaa Gly Xaa Xaa Thr Xaa Thr
                85   90   95
Xaa Xaa Xaa Leu Xaa Xaa Xaa Asp Xaa Gly Xaa Tyr Xaa Cys Xaa Xaa
            100   105   110
Xaa Xaa Xaa Ser Xaa Xaa Xaa Xaa Xaa Xaa Xaa Val Xaa Xaa Xaa Xaa
        115   120   125
Xaa Xaa Xaa Pro
    130

<210> 853
<211> 118
<212> PRT
<213> Homo sapiens

<400> 853
Glu Leu Arg Ala Ala Thr Lys Leu Thr Gly Glu Lys Tyr Glu Leu Lys
 1   5   10   15
Glu Gly Gln Thr Leu Asp Val Lys Cys Asp Tyr Thr Leu Glu Lys Phe
            20   25   30
Ala Ser Ser Gln Lys Ala Trp Gln Ile Ile Arg Asp Gly Glu Met Pro
        35   40   45
Lys Thr Leu Ala Cys Thr Glu Arg Pro Ser Lys Asn Ser His Pro Val
    50   55   60
Gln Val Gly Arg Ile Ile Leu Glu Asp Tyr His Asp His Gly Leu Leu
65   70   75   80
Arg Val Arg Met Val Asn Leu Gln Val Glu Asp Ser Gly Leu Tyr Gln
                85   90   95
Cys Val Ile Tyr Gln Pro Pro Lys Glu Pro His Met Leu Phe Asp Arg
            100   105   110
Ile Arg Leu Val Val Thr
        115

<210> 854
<211> 121
<212> PRT
<213> Homo sapiens

<400> 854
Val Thr Glu Leu Ser Gly Ala His Asn Thr Thr Val Phe Gln Gly Val
 1   5   10   15
Ala Gly Gln Ser Leu Gln Val Ser Cys Pro Tyr Asp Ser Met Lys His
            20   25   30
Trp Gly Arg Arg Lys Ala Trp Cys Arg Gln Leu Gly Glu Lys Gly Pro
        35   40   45

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

<210> 855
<211> 120
<212> PRT
<213> Mus musculus

<400> 855

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

<210> 856
<211> 121
<212> PRT
<213> Mus musculus

<400> 856

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

```
Glu Glu Ala Asp Gly Ser Thr Val Ile Ala Asp Asp Thr Leu Ala Gly
65                  70                  75                  80
Thr Val Thr Ile Thr Leu Lys Asn Leu Gln Ala Gly Asp Ala Gly Leu
                85                  90                  95
Tyr Gln Cys Gln Ser Leu Arg Gly Arg Glu Arg Glu Val Leu Gln Lys
            100                 105                 110
Val Leu Val Glu Val Leu Glu Asp Pro
        115                 120


<210> 857
<211> 121
<212> PRT
<213> Mus musculus

<400> 857
Leu Cys Val Ser Gly Leu Gln Ala Gly Asp Glu Glu Glu His Lys Cys
 1               5                  10                  15
Phe Leu Glu Gly Glu Asn Leu Thr Leu Thr Cys Pro Tyr Asn Ile Met
            20                  25                  30
Leu Tyr Ser Leu Ser Leu Lys Ala Trp Gln Arg Val Arg Ser His Gly
        35                  40                  45
Ser Pro Glu Thr Leu Val Leu Thr Asn Thr Arg Lys Ala Asp Phe Asn
    50                  55                  60
Val Ala Arg Ala Gly Lys Tyr Leu Leu Glu Asp Tyr Pro Thr Glu Ser
65                  70                  75                  80
Val Val Lys Val Thr Val Thr Gly Leu Gln Arg Gln Asp Val Gly Leu
                85                  90                  95
Tyr Gln Cys Val Val Tyr Leu Ser Pro Asp Asn Val Ile Ile Leu Arg
            100                 105                 110
Gln Arg Ile Arg Leu Ala Trp Cys Gln
        115                 120


<210> 858
<211> 112
<212> PRT
<213> Homo sapiens

<400> 858
Ser Gln Ala Gln Ser Lys Ala Gln Val Leu Gln Ser Val Ala Gly Gln
 1               5                  10                  15
Thr Leu Thr Val Arg Cys Gln Tyr Pro Pro Thr Gly Ser Leu Tyr Glu
            20                  25                  30
Lys Lys Gly Trp Cys Lys Glu Ala Ser Ala Leu Val Cys Ile Arg Leu
        35                  40                  45
Val Thr Ser Ser Lys Pro Arg Thr Met Ala Trp Thr Ser Arg Phe Thr
    50                  55                  60
Ile Trp Asp Asp Pro Asp Ala Gly Phe Phe Thr Val Thr Met Thr Asp
65                  70                  75                  80
```

```
Leu Arg Glu Glu Asp Ser Gly His Tyr Trp Cys Arg Ile Tyr Arg Pro
                85                  90                  95
Ser Asp Asn Ser Val Ser Lys Ser Val Arg Phe Tyr Leu Val Val Ser
            100                 105                 110


<210> 859
<211> 109
<212> PRT
<213> Homo sapiens

<400> 859
Glu Val Glu Gln Asn Ser Gly Pro Leu Ser Val Pro Glu Gly Ala Ile
 1               5                  10                  15
Ala Ser Leu Asn Cys Thr Tyr Ser Asp Arg Gly Ser Gln Ser Phe Phe
            20                  25                  30
Trp Tyr Arg Gln Tyr Ser Gly Lys Ser Pro Glu Leu Ile Met Ser Ile
        35                  40                  45
Tyr Ser Asn Gly Asp Lys Glu Asp Gly Arg Phe Thr Ala Gln Leu Asn
    50                  55                  60
Lys Ala Ser Gln Tyr Val Ser Leu Leu Ile Arg Asp Ser Gln Pro Ser
65                  70                  75                  80
Asp Ser Ala Thr Tyr Leu Cys Ala Val Thr Thr Asp Ser Trp Gly Lys
                85                  90                  95
Leu Gln Phe Gly Ala Gly Thr Gln Val Val Val Thr Pro
            100                 105


<210> 860
<211> 114
<212> PRT
<213> Homo sapiens

<400> 860
Gly Val Thr Gln Thr Pro Lys Phe Gln Val Leu Lys Thr Gly Gln Ser
 1               5                  10                  15
Met Thr Leu Gln Cys Ala Gln Asp Met Asn His Glu Tyr Met Ser Trp
            20                  25                  30
Tyr Arg Gln Asp Pro Gly Met Gly Leu Arg Leu Ile His Tyr Ser Val
        35                  40                  45
Gly Ala Gly Ile Thr Asp Gln Gly Glu Val Pro Asn Gly Tyr Asn Val
    50                  55                  60
Ser Arg Ser Thr Thr Glu Asp Phe Pro Leu Arg Leu Leu Ser Ala Ala
65                  70                  75                  80
Pro Ser Gln Thr Ser Val Tyr Phe Cys Ala Ser Arg Pro Gly Leu Ala
                85                  90                  95
Gly Gly Arg Pro Glu Gln Tyr Phe Gly Pro Gly Thr Arg Leu Thr Val
            100                 105                 110
Thr Glu
```

<210> 861
<211> 120
<212> PRT
<213> Homo sapiens

<400> 861
His Leu Glu Gln Pro Gln Ile Ser Ser Thr Lys Thr Leu Ser Lys Thr
 1   5   10   15
Ala Arg Leu Glu Cys Val Val Ser Gly Ile Thr Ile Ser Ala Thr Ser
            20   25   30
Val Tyr Trp Tyr Arg Glu Arg Pro Gly Glu Val Ile Gln Phe Leu Val
        35   40   45
Ser Ile Ser Tyr Asp Gly Thr Val Arg Lys Glu Ser Gly Ile Pro Ser
    50   55   60
Gly Lys Phe Glu Val Asp Arg Ile Pro Glu Thr Ser Thr Ser Thr Leu
65   70   75   80
Thr Ile His Asn Val Glu Lys Gln Asp Ile Ala Thr Tyr Tyr Cys Ala
                85   90   95
Leu Trp Glu Ala Gln Gln Glu Leu Gly Lys Lys Ile Lys Val Phe Gly
            100   105   110
Pro Gly Thr Lys Leu Ile Ile Thr
        115   120

<210> 862
<211> 119
<212> PRT
<213> Homo sapiens

<400> 862
Ala Ile Glu Leu Val Pro Glu His Gln Thr Val Pro Val Ser Ile Gly
 1   5   10   15
Val Pro Ala Thr Leu Arg Cys Ser Met Lys Gly Glu Ala Ile Gly Asn
            20   25   30
Tyr Tyr Ile Asn Trp Tyr Arg Lys Thr Gln Gly Asn Thr Met Thr Phe
        35   40   45
Ile Tyr Arg Glu Lys Asp Ile Tyr Gly Pro Gly Phe Lys Asp Asn Phe
    50   55   60
Gln Gly Asp Ile Asp Ile Ala Lys Asn Leu Ala Val Leu Lys Ile Leu
65   70   75   80
Ala Pro Ser Glu Arg Asp Glu Gly Ser Tyr Tyr Cys Ala Cys Asp Thr
                85   90   95
Leu Gly Met Gly Gly Glu Tyr Thr Asp Lys Leu Ile Phe Gly Lys Gly
            100   105   110
Thr Arg Val Thr Val Glu Pro
        115

<210> 863
<211> 116
<212> PRT
<213> Homo sapiens

<400> 863
Asp Lys Val Thr Gln Ser Ser Pro Asp Gln Thr Val Ala Ser Gly Ser
 1   5   10   15
Glu Val Val Leu Leu Cys Thr Tyr Asp Thr Val Tyr Ser Asn Pro Asp
            20   25   30
Leu Phe Trp Tyr Arg Ile Arg Pro Asp Tyr Ser Phe Gln Phe Val Phe
        35   40   45
Tyr Gly Asp Asp Ser Arg Ser Glu Gly Ala Asp Phe Thr Gln Gly Arg
    50   55   60
Phe Ser Val Lys His Ile Leu Thr Gln Lys Ala Phe His Leu Val Ile
65   70   75   80
Ser Pro Val Arg Thr Glu Asp Ser Ala Thr Tyr Tyr Cys Ala Phe Thr
                85   90   95
Leu Pro Pro Pro Thr Asp Lys Leu Ile Phe Gly Lys Gly Thr Arg Val
            100   105   110
Thr Val Glu Pro
        115

<210> 864
<211> 115
<212> PRT
<213> Mus musculus

<400> 864
Gln Leu Gln Gln Ser Gly Ala Glu Leu Met Lys Pro Gly Ala Ser Val
 1   5   10   15
Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Ser Asp Tyr Trp Ile
            20   25   30
Glu Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile Gly Glu
        35   40   45
Ile Leu Pro Gly Ser Gly Ser Thr Asn Tyr His Glu Arg Phe Lys Gly
    50   55   60
Lys Ala Thr Phe Thr Ala Asp Thr Ser Ser Ser Thr Ala Tyr Met Gln
65   70   75   80
Leu Asn Ser Leu Thr Ser Glu Asp Ser Gly Val Tyr Tyr Cys Leu His
                85   90   95
Gly Asn Tyr Asp Phe Asp Gly Trp Gly Gln Gly Thr Thr Leu Thr Val
            100   105   110
Ser Ser Ala
        115

<210> 865
<211> 103

<212> PRT
<213> Mus musculus

<400> 865
Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly Glu Lys
 1   5   10   15
Val Thr Met Thr Cys Ser Ala Ser Ser Ser Val Asn Tyr Met Tyr Trp
            20   25   30
Tyr Gln Gln Lys Ser Gly Thr Pro Lys Arg Trp Ile Tyr Asp Thr Ser
        35   40   45
Lys Leu Ala Ser Gly Val Pro Val Arg Phe Ser Gly Ser Gly Ser Gly
    50   55   60
Thr Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Thr Glu Asp Ala Ala
65   70   75   80
Thr Tyr Tyr Cys Gln Gln Trp Gly Arg Asn Pro Thr Phe Gly Gly Gly
                85   90   95
Thr Lys Leu Glu Ile Lys Arg
            100

<210> 866
<211> 113
<212> PRT
<213> Homo sapiens

<400> 866
Gln Phe Arg Val Ser Pro Leu Asp Arg Thr Trp Asn Leu Gly Glu Thr
 1   5   10   15
Val Glu Leu Lys Cys Gln Val Leu Leu Ser Asn Pro Thr Ser Gly Cys
            20   25   30
Ser Trp Leu Phe Gln Pro Arg Gly Ala Ala Ala Ser Pro Thr Phe Leu
        35   40   45
Leu Tyr Leu Ser Gln Asn Lys Pro Lys Ala Ala Glu Gly Leu Asp Thr
    50   55   60
Gln Arg Phe Ser Gly Lys Arg Leu Gly Asp Thr Phe Val Leu Thr Leu
65   70   75   80
Ser Asp Phe Arg Arg Glu Asn Glu Gly Tyr Tyr Phe Cys Ser Ala Leu
                85   90   95
Ser Asn Ser Ile Met Tyr Phe Ser His Phe Val Pro Val Phe Leu Pro
            100   105   110
Ala

<210> 867
<211> 115
<212> PRT
<213> Homo sapiens

<400> 867

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

<210> 868
<211> 105
<212> PRT
<213> Homo sapiens

<400> 868

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

<210> 869
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Consensus Sequence

<220>
<221> VARIANT

<222> 3, 4, 8, 11, 12, 14, 15, 16, 18, 19, 20, 21, 22, 23, 24,
25, 28, 30, 32, 34, 36, 37, 38, 40, 41, 42, 43, 44, 48,
49, 51, 52, 53, 54, 56, 57, 58, 59, 60, 61, 62, 63, 64,
65, 66, 67, 68, 69, 70, 71, 72, 73, 74, 75, 76, 78, 79,
80, 81
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 82, 84, 85, 86, 87, 89, 91, 92, 93, 94, 95, 99, 100, 102
<223> Xaa = Any Amino Acid

<400> 869
Leu Leu Xaa Xaa Leu Phe Val Xaa Glu Leu Xaa Xaa Ala Xaa Xaa Xaa
 1   5   10   15
Thr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Gln Xaa Leu Xaa Val Xaa
            20   25   30
Cys Xaa Tyr Xaa Xaa Xaa Lys Xaa Xaa Xaa Xaa Xaa Lys Ala Trp Xaa
        35   40   45
Xaa Gln Xaa Xaa Xaa Xaa Gly Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
    50   55   60
Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Gly Xaa Xaa Xaa
65   70   75   80
Xaa Xaa Asp Xaa Xaa Xaa Xaa Gly Xaa Leu Xaa Xaa Xaa Xaa Xaa Asn
                85   90   95
Leu Gln Xaa Xaa Asp Xaa Gly Leu Tyr Gln Cys
            100   105

<210> 870
<211> 101
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 870
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
                85   90   95

Ile Gln Leu Pro Pro
            100

<210> 871
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 871
Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 1   5   10

<210> 872
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 872
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1   5   10   15
Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Asp Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 873
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 873
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu His Ser
            20   25   30
Asp Gly Lys Thr Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ser
                85   90   95
Ile Gln Leu Pro Pro Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 874
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 874
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 875
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 875
Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly
 1   5   10   15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
            20   25   30
Asn Gly Tyr Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
        35   40   45
Pro Gln Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
    50   55   60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65   70   75   80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Ser Gln Ser
                85   90   95
Thr Arg Val Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
            100   105   110

<210> 876
<211> 98
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 876
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65   70   75   80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85   90   95
Ala Arg

<210> 877
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 877
Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 1   5   10   15

<210> 878
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 878
Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala
 1   5   10   15
Ser Leu Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
            20   25   30
Trp Met Asn Trp Val Lys Gln Arg Pro Gly Lys Gly Leu Glu Trp Ile
        35   40   45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Glu Phe
    50   55   60
Arg Val Arg Ala Thr Leu Thr Ala Asp Thr Ser Ser Thr Thr Ala Tyr
65   70   75   80
Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
                85   90   95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100   105   110
Trp Gly Gln Gly Ala Ser Val Thr Val Ser Ser
        115   120

<210> 879
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 879
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1   5   10   15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20   25   30
Tyr Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35   40   45
Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr Ala Gln Lys Phe
    50   55   60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr

65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
100 105

<210> 880
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 880
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
20 25 30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
100 105 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 881
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 881
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
20 25 30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Ala Gln Lys Phe

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


<210> 882
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 882
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1               5                  10                  15
Ser Leu Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ala Phe Ser Ser Ser
            20                  25                  30
Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45
Gly Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Ala Gln Lys Phe
    50                  55                  60
Gln Gly Arg Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95
Ala Arg Leu Leu Arg Asn Gln Pro Gly Glu Ser Tyr Ala Met Asp Tyr
            100                 105                 110
Trp Gly Gln Gly Ala Leu Val Thr Val Ser Ser
        115                 120


<210> 883
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT
<222> 1
<223> Xaa = D or E
```

<220>
<221> VARIANT
<222> 2, 3
<223> Xaa = Any Amino Acid and up to 2 of them can be
present or absent

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

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

<220>
<221> VARIANT
<222> 8, 9, 10, 11, 12, 13, 14, 15
<223> Xaa = Any Amino Acid and up to 2 of them can be
present or absent

<220>
<221> VARIANT
<222> 17, 18
<223> Xaa = Any Amino Acid

<220>
<221> VARIANT
<222> 19
<223> Xaa = L or I

<400> 883
Xaa Xaa Xaa Tyr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr
1 5 10 15
Xaa Xaa Xaa

<210> 884
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<220>
<221> VARIANT

<222> 5
<223> Xaa = F or V

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

<400> 884
Gly Asp Leu Trp Xaa Pro Xaa Glu Ser
 1   5

<210> 885
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 885
Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val His Leu
 1   5   10   15
Tyr Arg Asn Gly Lys
            20

<210> 886
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 886
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

100 105 110

<210> 887
<211> 113
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 887
Met Gly Gly Leu Glu Pro Cys Ser Arg Leu Leu Leu Leu Pro Leu Leu
1 5 10 15
Leu Ala Val Ser Gly Leu Arg Pro Val Gln Ala Gln Ala Gln Ser Asp
20 25 30
Cys Ser Cys Ser Thr Val Ser Pro Gly Val Leu Ala Gly Ile Val Met
35 40 45
Gly Asp Leu Val Leu Thr Val Leu Ile Ala Leu Ala Val Tyr Phe Leu
50 55 60
Gly Arg Leu Val Pro Arg Gly Arg Gly Ala Ala Glu Ala Ala Thr Arg
65 70 75 80
Lys Gln Arg Ile Thr Glu Thr Glu Ser Pro Tyr Gln Glu Leu Gln Gly
85 90 95
Gln Arg Ser Asp Val Tyr Ser Asp Leu Asn Thr Gln Arg Pro Tyr Tyr
100 105 110
Lys

<210> 888
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Construct

<400> 888
Arg Ile Tyr Pro Gly Asp Gly Asp Thr Asn Tyr Asn Gly Glu Phe Arg
1 5 10 15
Val