SEQUENCE LISTING

<110> Cue Biopharma, Inc.
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Chaparro, Rodolfo J

<120> Multimeric T-Cell Modulatory Polypeptides and Methods of Use Thereof

<130> CUEB-115WO

<150> US 62/782,167
<151> 2018-12-19

<150> US 62/814,684
<151> 2019-03-06

<160> 451

<170> PatentIn version 3.5

<210> 1
<211> 245
<212> PRT
<213> Homo sapiens

<400> 1

Met Arg Ile Phe Ala Val Phe Ile Phe Met Thr Tyr Trp His Leu Leu
1 5 10 15

Asn Ala Phe Thr Val Thr Val Pro Lys Asp Leu Tyr Val Val Glu Tyr
20 25 30

Gly Ser Asn Met Thr Ile Glu Cys Lys Phe Pro Val Glu Lys Gln Leu
35 40 45

Asp Leu Ala Ala Leu Ile Val Tyr Trp Glu Met Glu Asp Lys Asn Ile
50 55 60

Ile Gln Phe Val His Gly Glu Glu Asp Leu Lys Val Gln His Ser Ser
65 70 75 80

Tyr Arg Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser Leu Gly Asn
85 90 95

Ala Ala Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr
100 105 110

```
Arg Cys Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Val
        115                 120                 125

Lys Val Asn Ala Pro Tyr Asn Lys Ile Asn Gln Arg Ile Leu Val Val
    130                 135                 140

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

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

Gly Lys Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn
            180                 185                 190

Val Thr Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu Ile Phe Tyr
        195                 200                 205

Cys Thr Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr Ala Glu Leu
    210                 215                 220

Val Ile Pro Gly Asn Ile Leu Asn Val Ser Ile Lys Ile Cys Leu Thr
225                 230                 235                 240

Leu Ser Pro Ser Thr
                245
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<210> 2
<211> 219
<212> PRT
<213> Homo sapiens

<400> 2

```
Phe Thr Val Thr Val Pro Lys Asp Leu Tyr Val Val Glu Tyr Gly Ser
1               5                   10                  15

Asn Met Thr Ile Glu Cys Lys Phe Pro Val Glu Lys Gln Leu Asp Leu
            20                  25                  30

Ala Ala Leu Ile Val Tyr Trp Glu Met Glu Asp Lys Asn Ile Ile Gln
        35                  40                  45

Phe Val His Gly Glu Glu Asp Leu Lys Val Gln His Ser Ser Tyr Arg
```

```
    50                  55                  60

Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser Leu Gly Asn Ala Ala
65                  70                  75                  80

Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr Arg Cys
                85                  90                  95

Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Val Lys Val
            100                 105                 110

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

Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala Glu Gly Tyr Pro Lys
    130                 135                 140

Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln Val Leu Ser Gly Lys
145                 150                 155                 160

Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn Val Thr
                165                 170                 175

Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu Ile Phe Tyr Cys Thr
            180                 185                 190

Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr Ala Glu Leu Val Ile
        195                 200                 205

Pro Gly Asn Ile Leu Asn Val Ser Ile Lys Ile
    210                 215
```

<210> 3
<211> 268
<212> PRT
<213> Homo sapiens

<400> 3

```
Pro Gly Trp Phe Leu Asp Ser Pro Asp Arg Pro Trp Asn Pro Pro Thr
1               5                   10                  15

Phe Ser Pro Ala Leu Leu Val Val Thr Glu Gly Asp Asn Ala Thr Phe
            20                  25                  30
```

```
Thr Cys Ser Phe Ser Asn Thr Ser Glu Ser Phe Val Leu Asn Trp Tyr
        35                  40                  45

Arg Met Ser Pro Ser Asn Gln Thr Asp Lys Leu Ala Ala Phe Pro Glu
    50                  55                  60

Asp Arg Ser Gln Pro Gly Gln Asp Cys Arg Phe Arg Val Thr Gln Leu
65                  70                  75                  80

Pro Asn Gly Arg Asp Phe His Met Ser Val Val Arg Ala Arg Arg Asn
                85                  90                  95

Asp Ser Gly Thr Tyr Leu Cys Gly Ala Ile Ser Leu Ala Pro Lys Ala
            100                 105                 110

Gln Ile Lys Glu Ser Leu Arg Ala Glu Leu Arg Val Thr Glu Arg Arg
        115                 120                 125

Ala Glu Val Pro Thr Ala His Pro Ser Pro Ser Pro Arg Pro Ala Gly
    130                 135                 140

Gln Phe Gln Thr Leu Val Val Gly Val Val Gly Gly Leu Leu Gly Ser
145                 150                 155                 160

Leu Val Leu Leu Val Trp Val Leu Ala Val Ile Cys Ser Arg Ala Ala
                165                 170                 175

Arg Gly Thr Ile Gly Ala Arg Arg Thr Gly Gln Pro Leu Lys Glu Asp
            180                 185                 190

Pro Ser Ala Val Pro Val Phe Ser Val Asp Tyr Gly Glu Leu Asp Phe
        195                 200                 205

Gln Trp Arg Glu Lys Thr Pro Glu Pro Pro Val Pro Cys Val Pro Glu
    210                 215                 220

Gln Thr Glu Tyr Ala Thr Ile Val Phe Pro Ser Gly Met Gly Thr Ser
225                 230                 235                 240

Ser Pro Ala Arg Arg Gly Ser Ala Asp Gly Pro Arg Ser Ala Gln Pro
                245                 250                 255
```

Leu Arg Pro Glu Asp Gly His Cys Ser Trp Pro Leu
260 265

<210> 4
<211> 208
<212> PRT
<213> Homo sapiens

<400> 4

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1 5 10 15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
20 25 30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
35 40 45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145 150 155 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
165 170 175

```
Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205
```

<210> 5
<211> 220
<212> PRT
<213> Homo sapiens

<400> 5

```
Met Leu Arg Leu Leu Leu Ala Leu Asn Leu Phe Pro Ser Ile Gln Val
1               5                   10                  15

Thr Gly Asn Lys Ile Leu Val Lys Gln Ser Pro Met Leu Val Ala Tyr
            20                  25                  30

Asp Asn Ala Val Asn Leu Ser Cys Lys Tyr Ser Tyr Asn Leu Phe Ser
        35                  40                  45

Arg Glu Phe Arg Ala Ser Leu His Lys Gly Leu Asp Ser Ala Val Glu
    50                  55                  60

Val Cys Val Val Tyr Gly Asn Tyr Ser Gln Gln Leu Gln Val Tyr Ser
65                  70                  75                  80

Lys Thr Gly Phe Asn Cys Asp Gly Lys Leu Gly Asn Glu Ser Val Thr
                85                  90                  95

Phe Tyr Leu Gln Asn Leu Tyr Val Asn Gln Thr Asp Ile Tyr Phe Cys
            100                 105                 110

Lys Ile Glu Val Met Tyr Pro Pro Pro Tyr Leu Asp Asn Glu Lys Ser
        115                 120                 125

Asn Gly Thr Ile Ile His Val Lys Gly Lys His Leu Cys Pro Ser Pro
    130                 135                 140

Leu Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val Gly
145                 150                 155                 160
```

```
Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile
                165                 170                 175

Phe Trp Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met
            180                 185                 190

Asn Met Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro
        195                 200                 205

Tyr Ala Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser
    210                 215                 220
```

<210> 6
<211> 123
<212> PRT
<213> Homo sapiens

<400> 6

```
Met Leu Arg Leu Leu Leu Ala Leu Asn Leu Phe Pro Ser Ile Gln Val
1               5                   10                  15

Thr Gly Asn Lys Ile Leu Val Lys Gln Ser Pro Met Leu Val Ala Tyr
            20                  25                  30

Asp Asn Ala Val Asn Leu Ser Trp Lys His Leu Cys Pro Ser Pro Leu
        35                  40                  45

Phe Pro Gly Pro Ser Lys Pro Phe Trp Val Leu Val Val Val Gly Gly
    50                  55                  60

Val Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe
65                  70                  75                  80

Trp Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn
                85                  90                  95

Met Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr
            100                 105                 110

Ala Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser
        115                 120
```

<210> 7

<211> 101
<212> PRT
<213> Homo sapiens

<400> 7

Met Leu Arg Leu Leu Leu Ala Leu Asn Leu Phe Pro Ser Ile Gln Val
1 5 10 15

Thr Gly Lys His Leu Cys Pro Ser Pro Leu Phe Pro Gly Pro Ser Lys
20 25 30

Pro Phe Trp Val Leu Val Val Val Gly Gly Val Leu Ala Cys Tyr Ser
35 40 45

Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp Val Arg Ser Lys Arg
50 55 60

Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met Thr Pro Arg Arg Pro
65 70 75 80

Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala Pro Pro Arg Asp Phe
85 90 95

Ala Ala Tyr Arg Ser
100

<210> 8
<211> 224
<212> PRT
<213> Homo sapiens

<400> 8

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

```
Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
            100                 105                 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115                 120                 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220
```

<210> 9
<211> 110
<212> PRT
<213> Homo sapiens

<400> 9

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
            20                  25                  30
```

```
Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35                  40                  45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
            100                 105                 110
```

<210> 10
<211> 254
<212> PRT
<213> Homo sapiens

<400> 10

```
Met Glu Tyr Ala Ser Asp Ala Ser Leu Asp Pro Glu Ala Pro Trp Pro
1               5                   10                  15

Pro Ala Pro Arg Ala Arg Ala Cys Arg Val Leu Pro Trp Ala Leu Val
            20                  25                  30

Ala Gly Leu Leu Leu Leu Leu Leu Leu Ala Ala Ala Cys Ala Val Phe
        35                  40                  45

Leu Ala Cys Pro Trp Ala Val Ser Gly Ala Arg Ala Ser Pro Gly Ser
    50                  55                  60

Ala Ala Ser Pro Arg Leu Arg Glu Gly Pro Glu Leu Ser Pro Asp Asp
65                  70                  75                  80

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
                85                  90                  95

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
            100                 105                 110

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
```

```
        115                 120                 125

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    130                 135                 140

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
145                 150                 155                 160

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                165                 170                 175

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            180                 185                 190

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        195                 200                 205

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    210                 215                 220

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
225                 230                 235                 240

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                245                 250
```

<210> 11
<211> 174
<212> PRT
<213> Homo sapiens

<400> 11

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60
```

```
Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 12
<211> 175
<212> PRT
<213> Homo sapiens

<400> 12

```
Asp Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu
1               5                   10                  15

Val Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser
            20                  25                  30

Asp Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys
        35                  40                  45

Glu Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val
    50                  55                  60

Phe Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly
65                  70                  75                  80
```

```
Ser Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly
                85                  90                  95

Ala Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu
            100                 105                 110

Ala Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser
        115                 120                 125

Ala Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg
    130                 135                 140

His Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg
145                 150                 155                 160

Val Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170                 175
```

<210> 13
<211> 167
<212> PRT
<213> Homo sapiens

<400> 13

```
Asp Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu
1               5                   10                  15

Val Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser
            20                  25                  30

Asp Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys
        35                  40                  45

Glu Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val
    50                  55                  60

Phe Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly
65                  70                  75                  80

Ser Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly
                85                  90                  95
```

```
Ala Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu
            100                 105                 110

Ala Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser
        115                 120                 125

Ala Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg
    130                 135                 140

His Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg
145                 150                 155                 160

Val Thr Pro Glu Ile Pro Ala
                165
```

<210> 14
<211> 255
<212> PRT
<213> Homo sapiens

<400> 14

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

Asn Phe Glu Arg Thr Arg Ser Leu Gln Asp Pro Cys Ser Asn Cys Pro
            20                  25                  30

Ala Gly Thr Phe Cys Asp Asn Asn Arg Asn Gln Ile Cys Ser Pro Cys
        35                  40                  45

Pro Pro Asn Ser Phe Ser Ser Ala Gly Gly Gln Arg Thr Cys Asp Ile
    50                  55                  60

Cys Arg Gln Cys Lys Gly Val Phe Arg Thr Arg Lys Glu Cys Ser Ser
65                  70                  75                  80

Thr Ser Asn Ala Glu Cys Asp Cys Thr Pro Gly Phe His Cys Leu Gly
                85                  90                  95

Ala Gly Cys Ser Met Cys Glu Gln Asp Cys Lys Gln Gly Gln Glu Leu
            100                 105                 110

Thr Lys Lys Gly Cys Lys Asp Cys Cys Phe Gly Thr Phe Asn Asp Gln
```

```
        115                 120                 125

Lys Arg Gly Ile Cys Arg Pro Trp Thr Asn Cys Ser Leu Asp Gly Lys
    130                 135                 140

Ser Val Leu Val Asn Gly Thr Lys Glu Arg Asp Val Val Cys Gly Pro
145                 150                 155                 160

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

Pro Ala Arg Glu Pro Gly His Ser Pro Gln Ile Ile Ser Phe Phe Leu
            180                 185                 190

Ala Leu Thr Ser Thr Ala Leu Leu Phe Leu Leu Phe Phe Leu Thr Leu
        195                 200                 205

Arg Phe Ser Val Val Lys Arg Gly Arg Lys Lys Leu Leu Tyr Ile Phe
    210                 215                 220

Lys Gln Pro Phe Met Arg Pro Val Gln Thr Thr Gln Glu Glu Asp Gly
225                 230                 235                 240

Cys Ser Cys Arg Phe Pro Glu Glu Glu Glu Gly Gly Cys Glu Leu
                245                 250                 255
```

<210> 15
<211> 133
<212> PRT
<213> Homo sapiens

<400> 15

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60
```

```
Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130
```

<210> 16
<211> 251
<212> PRT
<213> Homo sapiens

<400> 16

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Glu Leu Cys Asp Asp Asp Pro Pro Glu Ile Pro His Ala Thr Phe Lys
1               5                   10                  15

Ala Met Ala Tyr Lys Glu Gly Thr Met Leu Asn Cys Glu Cys Lys Arg
            20                  25                  30

Gly Phe Arg Arg Ile Lys Ser Gly Ser Leu Tyr Met Leu Cys Thr Gly
        35                  40                  45

Asn Ser Ser His Ser Ser Trp Asp Asn Gln Cys Gln Cys Thr Ser Ser
    50                  55                  60

Ala Thr Arg Asn Thr Thr Lys Gln Val Thr Pro Gln Pro Glu Glu Gln
65                  70                  75                  80

Lys Glu Arg Lys Thr Thr Glu Met Gln Ser Pro Met Gln Pro Val Asp
                85                  90                  95

Gln Ala Ser Leu Pro Gly His Cys Arg Glu Pro Pro Pro Trp Glu Asn
            100                 105                 110
```

```
Glu Ala Thr Glu Arg Ile Tyr His Phe Val Val Gly Gln Met Val Tyr
        115                 120                 125

Tyr Gln Cys Val Gln Gly Tyr Arg Ala Leu His Arg Gly Pro Ala Glu
    130                 135                 140

Ser Val Cys Lys Met Thr His Gly Lys Thr Arg Trp Thr Gln Pro Gln
145                 150                 155                 160

Leu Ile Cys Thr Gly Glu Met Glu Thr Ser Gln Phe Pro Gly Glu Glu
                165                 170                 175

Lys Pro Gln Ala Ser Pro Glu Gly Arg Pro Glu Ser Glu Thr Ser Cys
            180                 185                 190

Leu Val Thr Thr Thr Asp Phe Gln Ile Gln Thr Glu Met Ala Ala Thr
        195                 200                 205

Met Glu Thr Ser Ile Phe Thr Thr Glu Tyr Gln Val Ala Val Ala Gly
    210                 215                 220

Cys Val Phe Leu Leu Ile Ser Val Leu Leu Leu Ser Gly Leu Thr Trp
225                 230                 235                 240

Gln Arg Arg Gln Arg Lys Ser Arg Arg Thr Ile
                245                 250
```

<210> 17
<211> 524
<212> PRT
<213> Homo sapiens

<400> 17

```
Val Asn Gly Thr Ser Gln Phe Thr Cys Phe Tyr Asn Ser Arg Ala Asn
1               5                   10                  15

Ile Ser Cys Val Trp Ser Gln Asp Gly Ala Leu Gln Asp Thr Ser Cys
            20                  25                  30

Gln Val His Ala Trp Pro Asp Arg Arg Arg Trp Asn Gln Thr Cys Glu
        35                  40                  45
```

```
Leu Leu Pro Val Ser Gln Ala Ser Trp Ala Cys Asn Leu Ile Leu Gly
    50                  55                  60

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

Val Leu Cys Arg Glu Gly Val Arg Trp Arg Val Met Ala Ile Gln Asp
                85                  90                  95

Phe Lys Pro Phe Glu Asn Leu Arg Leu Met Ala Pro Ile Ser Leu Gln
            100                 105                 110

Val Val His Val Glu Thr His Arg Cys Asn Ile Ser Trp Glu Ile Ser
        115                 120                 125

Gln Ala Ser His Tyr Phe Glu Arg His Leu Glu Phe Glu Ala Arg Thr
    130                 135                 140

Leu Ser Pro Gly His Thr Trp Glu Glu Ala Pro Leu Leu Thr Leu Lys
145                 150                 155                 160

Gln Lys Gln Glu Trp Ile Cys Leu Glu Thr Leu Thr Pro Asp Thr Gln
                165                 170                 175

Tyr Glu Phe Gln Val Arg Val Lys Pro Leu Gln Gly Glu Phe Thr Thr
            180                 185                 190

Trp Ser Pro Trp Ser Gln Pro Leu Ala Phe Arg Thr Lys Pro Ala Ala
        195                 200                 205

Leu Gly Lys Asp Thr Ile Pro Trp Leu Gly His Leu Leu Val Gly Leu
    210                 215                 220

Ser Gly Ala Phe Gly Phe Ile Ile Leu Val Tyr Leu Leu Ile Asn Cys
225                 230                 235                 240

Arg Asn Thr Gly Pro Trp Leu Lys Lys Val Leu Lys Cys Asn Thr Pro
                245                 250                 255

Asp Pro Ser Lys Phe Phe Ser Gln Leu Ser Ser Glu His Gly Gly Asp
            260                 265                 270
```

```
Val Gln Lys Trp Leu Ser Ser Pro Phe Pro Ser Ser Ser Phe Ser Pro
        275                 280                 285

Gly Gly Leu Ala Pro Glu Ile Ser Pro Leu Glu Val Leu Glu Arg Asp
    290                 295                 300

Lys Val Thr Gln Leu Leu Leu Gln Gln Asp Lys Val Pro Glu Pro Ala
305                 310                 315                 320

Ser Leu Ser Ser Asn His Ser Leu Thr Ser Cys Phe Thr Asn Gln Gly
                325                 330                 335

Tyr Phe Phe Phe His Leu Pro Asp Ala Leu Glu Ile Glu Ala Cys Gln
            340                 345                 350

Val Tyr Phe Thr Tyr Asp Pro Tyr Ser Glu Glu Asp Pro Asp Glu Gly
        355                 360                 365

Val Ala Gly Ala Pro Thr Gly Ser Ser Pro Gln Pro Leu Gln Pro Leu
    370                 375                 380

Ser Gly Glu Asp Asp Ala Tyr Cys Thr Phe Pro Ser Arg Asp Asp Leu
385                 390                 395                 400

Leu Leu Phe Ser Pro Ser Leu Leu Gly Gly Pro Ser Pro Pro Ser Thr
                405                 410                 415

Ala Pro Gly Gly Ser Gly Ala Gly Glu Glu Arg Met Pro Pro Ser Leu
            420                 425                 430

Gln Glu Arg Val Pro Arg Asp Trp Asp Pro Gln Pro Leu Gly Pro Pro
        435                 440                 445

Thr Pro Gly Val Pro Asp Leu Val Asp Phe Gln Pro Pro Pro Glu Leu
    450                 455                 460

Val Leu Arg Glu Ala Gly Glu Glu Val Pro Asp Ala Gly Pro Arg Glu
465                 470                 475                 480

Gly Val Ser Phe Pro Trp Ser Arg Pro Pro Gly Gln Gly Glu Phe Arg
                485                 490                 495
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Ala Leu Asn Ala Arg Leu Pro Leu Asn Thr Asp Ala Tyr Leu Ser Leu
500 505 510

Gln Glu Leu Gln Gly Gln Asp Pro Thr His Leu Val
515 520

<210> 18
<211> 347
<212> PRT
<213> Homo sapiens

<400> 18

Leu Asn Thr Thr Ile Leu Thr Pro Asn Gly Asn Glu Asp Thr Thr Ala
1 5 10 15

Asp Phe Phe Leu Thr Thr Met Pro Thr Asp Ser Leu Ser Val Ser Thr
20 25 30

Leu Pro Leu Pro Glu Val Gln Cys Phe Val Phe Asn Val Glu Tyr Met
35 40 45

Asn Cys Thr Trp Asn Ser Ser Ser Glu Pro Gln Pro Thr Asn Leu Thr
50 55 60

Leu His Tyr Trp Tyr Lys Asn Ser Asp Asn Asp Lys Val Gln Lys Cys
65 70 75 80

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

Lys Lys Glu Ile His Leu Tyr Gln Thr Phe Val Val Gln Leu Gln Asp
100 105 110

Pro Arg Glu Pro Arg Arg Gln Ala Thr Gln Met Leu Lys Leu Gln Asn
115 120 125

Leu Val Ile Pro Trp Ala Pro Glu Asn Leu Thr Leu His Lys Leu Ser
130 135 140

Glu Ser Gln Leu Glu Leu Asn Trp Asn Asn Arg Phe Leu Asn His Cys
145 150 155 160

Leu Glu His Leu Val Gln Tyr Arg Thr Asp Trp Asp His Ser Trp Thr

```
                165                 170                 175

Glu Gln Ser Val Asp Tyr Arg His Lys Phe Ser Leu Pro Ser Val Asp
            180                 185                 190

Gly Gln Lys Arg Tyr Thr Phe Arg Val Arg Ser Arg Phe Asn Pro Leu
        195                 200                 205

Cys Gly Ser Ala Gln His Trp Ser Glu Trp Ser His Pro Ile His Trp
    210                 215                 220

Gly Ser Asn Thr Ser Lys Glu Asn Pro Phe Leu Phe Ala Leu Glu Ala
225                 230                 235                 240

Val Val Ile Ser Val Gly Ser Met Gly Leu Ile Ile Ser Leu Leu Cys
                245                 250                 255

Val Tyr Phe Trp Leu Glu Arg Thr Met Pro Arg Ile Pro Thr Leu Lys
            260                 265                 270

Asn Leu Glu Asp Leu Val Thr Glu Tyr His Gly Asn Phe Ser Ala Trp
        275                 280                 285

Ser Gly Val Ser Lys Gly Leu Ala Glu Ser Leu Gln Pro Asp Tyr Ser
    290                 295                 300

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

Gly Glu Gly Pro Gly Ala Ser Pro Cys Asn Gln His Ser Pro Tyr Trp
                325                 330                 335

Ala Pro Pro Cys Tyr Thr Leu Lys Pro Glu Thr
            340                 345


<210>  19
<211>  119
<212>  PRT
<213>  Homo sapiens

<400>  19

Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
1               5                   10                  15
```

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Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg
            20                  25                  30

His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser
        35                  40                  45

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

Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp
65                  70                  75                  80

Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp
                85                  90                  95

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

Val Lys Trp Asp Arg Asp Met
        115
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<210> 20
<211> 119
<212> PRT
<213> Macaca mulatta

<400> 20

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Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
1               5                   10                  15

Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg
            20                  25                  30

His Pro Pro Glu Asn Gly Lys Pro Asn Phe Leu Asn Cys Tyr Val Ser
        35                  40                  45

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

Lys Met Gly Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp
65                  70                  75                  80
```

```
Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Asn Glu Lys Asp
                85                  90                  95

Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gly Pro Arg Thr
            100                 105                 110

Val Lys Trp Asp Arg Asp Met
        115
```

<210> 21
<211> 118
<212> PRT
<213> Bos Taurus

<400> 21

```
Met Ala Arg Phe Val Ala Leu Val Leu Leu Gly Leu Leu Ser Leu Ser
1               5                  10                  15

Gly Leu Asp Ala Ile Gln Arg Pro Pro Lys Ile Gln Val Tyr Ser Arg
            20                  25                  30

His Pro Pro Glu Asp Gly Lys Pro Asn Tyr Leu Asn Cys Tyr Val Tyr
        35                  40                  45

Gly Phe His Pro Pro Gln Ile Glu Ile Asp Leu Leu Lys Asn Gly Glu
    50                  55                  60

Lys Ile Lys Ser Glu Gln Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser
65                  70                  75                  80

Phe Tyr Leu Leu Ser His Ala Glu Phe Thr Pro Asn Ser Lys Asp Gln
                85                  90                  95

Tyr Ser Cys Arg Val Lys His Val Thr Leu Glu Gln Pro Arg Ile Val
            100                 105                 110

Lys Trp Asp Arg Asp Leu
        115
```

<210> 22
<211> 119
<212> PRT
<213> Mus musculus

<400> 22

```
Met Ala Arg Ser Val Thr Leu Val Phe Leu Val Leu Val Ser Leu Thr
1               5                  10                  15

Gly Leu Tyr Ala Ile Gln Lys Thr Pro Gln Ile Gln Val Tyr Ser Arg
            20                  25                  30

His Pro Pro Glu Asn Gly Lys Pro Asn Ile Leu Asn Cys Tyr Val Thr
        35                  40                  45

Gln Phe His Pro Pro His Ile Glu Ile Gln Met Leu Lys Asn Gly Lys
    50                  55                  60

Lys Ile Pro Lys Val Glu Met Ser Asp Met Ser Phe Ser Lys Asp Trp
65                  70                  75                  80

Ser Phe Tyr Ile Leu Ala His Thr Glu Phe Thr Pro Thr Glu Thr Asp
                85                  90                  95

Thr Tyr Ala Cys Arg Val Lys His Ala Ser Met Ala Glu Pro Lys Thr
            100                 105                 110

Val Tyr Trp Asp Arg Asp Met
        115
```

<210> 23
<211> 365
<212> PRT
<213> Homo sapiens

<400> 23

```
Met Ala Val Met Ala Pro Arg Thr Leu Leu Leu Leu Leu Ser Gly Ala
1               5                  10                  15

Leu Ala Leu Thr Gln Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe
            20                  25                  30

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

Val Gly Tyr Val Asp Asp Thr Gln Phe Val Arg Phe Asp Ser Asp Ala
    50                  55                  60
```

```
Ala Ser Gln Lys Met Glu Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly
65                  70                  75                  80

Pro Glu Tyr Trp Asp Gln Glu Thr Arg Asn Met Lys Ala His Ser Gln
                85                  90                  95

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

Glu Asp Gly Ser His Thr Ile Gln Ile Met Tyr Gly Cys Asp Val Gly
        115                 120                 125

Pro Asp Gly Arg Phe Leu Arg Gly Tyr Arg Gln Asp Ala Tyr Asp Gly
    130                 135                 140

Lys Asp Tyr Ile Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala
145                 150                 155                 160

Asp Met Ala Ala Gln Ile Thr Lys Arg Lys Trp Glu Ala Val His Ala
                165                 170                 175

Ala Glu Gln Arg Arg Val Tyr Leu Glu Gly Arg Cys Val Asp Gly Leu
            180                 185                 190

Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg Thr Asp Pro
        195                 200                 205

Pro Lys Thr His Met Thr His His Pro Ile Ser Asp His Glu Ala Thr
    210                 215                 220

Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr
225                 230                 235                 240

Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Thr Glu Leu Val Glu
                245                 250                 255

Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala Val Val
            260                 265                 270

Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln His Glu
        275                 280                 285
```

```
Gly Leu Pro Lys Pro Leu Thr Leu Arg Trp Glu Leu Ser Ser Gln Pro
    290                 295                 300

Thr Ile Pro Ile Val Gly Ile Ile Ala Gly Leu Val Leu Leu Gly Ala
305                 310                 315                 320

Val Ile Thr Gly Ala Val Val Ala Ala Val Met Trp Arg Arg Lys Ser
                325                 330                 335

Ser Asp Arg Lys Gly Gly Ser Tyr Thr Gln Ala Ala Ser Ser Asp Ser
            340                 345                 350

Ala Gln Gly Ser Asp Val Ser Leu Thr Ala Cys Lys Val
        355                 360                 365
```

<210> 24
<211> 365
<212> PRT
<213> Homo sapiens

<400> 24

```
Met Ala Val Met Ala Pro Arg Thr Leu Leu Leu Leu Leu Ser Gly Ala
1               5                   10                  15

Leu Ala Leu Thr Gln Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe
            20                  25                  30

Tyr Thr Ser Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Phe Ile Ala
        35                  40                  45

Val Gly Tyr Val Asp Asp Thr Gln Phe Val Arg Phe Asp Ser Asp Ala
    50                  55                  60

Ala Ser Gln Arg Met Glu Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly
65                  70                  75                  80

Pro Glu Tyr Trp Asp Gln Glu Thr Arg Asn Val Lys Ala Gln Ser Gln
                85                  90                  95

Thr Asp Arg Val Asp Leu Gly Thr Leu Arg Gly Tyr Tyr Asn Gln Ser
            100                 105                 110
```

```
Glu Asp Gly Ser His Thr Ile Gln Ile Met Tyr Gly Cys Asp Val Gly
        115                 120                 125

Pro Asp Gly Arg Phe Leu Arg Gly Tyr Arg Gln Asp Ala Tyr Asp Gly
    130                 135                 140

Lys Asp Tyr Ile Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala
145                 150                 155                 160

Asp Met Ala Ala Gln Ile Thr Lys Arg Lys Trp Glu Ala Ala His Ala
                165                 170                 175

Ala Glu Gln Gln Arg Ala Tyr Leu Glu Gly Arg Cys Val Glu Trp Leu
            180                 185                 190

Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg Thr Asp Pro
        195                 200                 205

Pro Lys Thr His Met Thr His His Pro Ile Ser Asp His Glu Ala Thr
    210                 215                 220

Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr
225                 230                 235                 240

Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Thr Glu Leu Val Glu
                245                 250                 255

Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala Val Val
            260                 265                 270

Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln His Glu
        275                 280                 285

Gly Leu Pro Lys Pro Leu Thr Leu Arg Trp Glu Leu Ser Ser Gln Pro
    290                 295                 300

Thr Ile Pro Ile Val Gly Ile Ile Ala Gly Leu Val Leu Leu Gly Ala
305                 310                 315                 320

Val Ile Thr Gly Ala Val Val Ala Ala Val Met Trp Arg Arg Lys Ser
                325                 330                 335
```

```
Ser Asp Arg Lys Gly Gly Ser Tyr Thr Gln Ala Ala Ser Ser Asp Ser
            340                 345                 350

Ala Gln Gly Ser Asp Val Ser Leu Thr Ala Cys Lys Val
        355                 360                 365
```

<210> 25
<211> 365
<212> PRT
<213> Homo sapiens

<400> 25

```
Met Ala Val Met Ala Pro Arg Thr Leu Val Leu Leu Leu Ser Gly Ala
1               5                   10                  15

Leu Ala Leu Thr Gln Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe
            20                  25                  30

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

Val Gly Tyr Val Asp Asp Thr Gln Phe Val Arg Phe Asp Ser Asp Ala
    50                  55                  60

Ala Ser Gln Arg Met Glu Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly
65                  70                  75                  80

Pro Glu Tyr Trp Asp Glu Glu Thr Gly Lys Val Lys Ala His Ser Gln
                85                  90                  95

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

Glu Ala Gly Ser His Thr Leu Gln Met Met Phe Gly Cys Asp Val Gly
        115                 120                 125

Ser Asp Gly Arg Phe Leu Arg Gly Tyr His Gln Tyr Ala Tyr Asp Gly
    130                 135                 140

Lys Asp Tyr Ile Ala Leu Lys Glu Asp Leu Arg Ser Trp Thr Ala Ala
145                 150                 155                 160
```

```
Asp Met Ala Ala Gln Ile Thr Lys Arg Lys Trp Glu Ala Ala His Val
                165                 170                 175

Ala Glu Gln Gln Arg Ala Tyr Leu Glu Gly Thr Cys Val Asp Gly Leu
            180                 185                 190

Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg Thr Asp Pro
        195                 200                 205

Pro Lys Thr His Met Thr His His Pro Ile Ser Asp His Glu Ala Thr
    210                 215                 220

Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr
225                 230                 235                 240

Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Thr Glu Leu Val Glu
                245                 250                 255

Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala Val Val
            260                 265                 270

Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln His Glu
        275                 280                 285

Gly Leu Pro Lys Pro Leu Thr Leu Arg Trp Glu Pro Ser Ser Gln Pro
    290                 295                 300

Thr Val Pro Ile Val Gly Ile Ile Ala Gly Leu Val Leu Leu Gly Ala
305                 310                 315                 320

Val Ile Thr Gly Ala Val Val Ala Ala Val Met Trp Arg Arg Asn Ser
                325                 330                 335

Ser Asp Arg Lys Gly Gly Ser Tyr Ser Gln Ala Ala Ser Ser Asp Ser
            340                 345                 350

Ala Gln Gly Ser Asp Val Ser Leu Thr Ala Cys Lys Val
        355                 360                 365
```

<210> 26
<211> 365
<212> PRT
<213> Homo sapiens

<400> 26

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Met Ala Val Met Ala Pro Arg Thr Leu Leu Leu Leu Leu Gly Ala
1               5                  10                  15

Leu Ala Leu Thr Gln Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe
            20                  25                  30

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

Val Gly Tyr Val Asp Asp Thr Gln Phe Val Arg Phe Asp Ser Asp Ala
    50                  55                  60

Ala Ser Gln Arg Met Glu Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly
65                  70                  75                  80

Pro Glu Tyr Trp Asp Arg Asn Thr Arg Asn Val Lys Ala His Ser Gln
                85                  90                  95

Ile Asp Arg Val Asp Leu Gly Thr Leu Arg Gly Tyr Tyr Asn Gln Ser
            100                 105                 110

Glu Ala Gly Ser His Thr Ile Gln Met Met Tyr Gly Cys Asp Val Gly
        115                 120                 125

Ser Asp Gly Arg Phe Leu Arg Gly Tyr Gln Gln Asp Ala Tyr Asp Gly
    130                 135                 140

Lys Asp Tyr Ile Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala
145                 150                 155                 160

Asp Met Ala Ala Gln Ile Thr Gln Arg Lys Trp Glu Ala Ala Arg Val
                165                 170                 175

Ala Glu Gln Leu Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu
            180                 185                 190

Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg Thr Asp Pro
        195                 200                 205

Pro Lys Thr His Met Thr His His Ala Val Ser Asp His Glu Ala Thr
```

```
    210                 215                 220

Leu Arg Cys Trp Ala Leu Ser Phe Tyr Pro Ala Glu Ile Thr Leu Thr
225                 230                 235                 240

Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Thr Glu Leu Val Glu
                245                 250                 255

Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ser Val Val
            260                 265                 270

Val Pro Ser Gly Gln Glu Gln Arg Tyr Thr Cys His Val Gln His Glu
        275                 280                 285

Gly Leu Pro Lys Pro Leu Thr Leu Arg Trp Glu Pro Ser Ser Gln Pro
    290                 295                 300

Thr Ile Pro Ile Val Gly Ile Ile Ala Gly Leu Val Leu Phe Gly Ala
305                 310                 315                 320

Val Phe Ala Gly Ala Val Val Ala Ala Val Arg Trp Arg Arg Lys Ser
                325                 330                 335

Ser Asp Arg Lys Gly Gly Ser Tyr Ser Gln Ala Ala Ser Ser Asp Ser
            340                 345                 350

Ala Gln Gly Ser Asp Met Ser Leu Thr Ala Cys Lys Val
        355                 360                 365
```

<210> 27
<211> 362
<212> PRT
<213> Homo sapiens

<400> 27

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

Leu Ala Leu Thr Glu Thr Trp Ala Gly Ser His Ser Met Arg Tyr Phe
            20                  25                  30

Tyr Thr Ser Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Phe Ile Ser
        35                  40                  45
```

```
Val Gly Tyr Val Asp Asp Thr Gln Phe Val Arg Phe Asp Ser Asp Ala
    50                  55                  60

Ala Ser Pro Arg Glu Glu Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly
65                  70                  75                  80

Pro Glu Tyr Trp Asp Arg Asn Thr Gln Ile Tyr Lys Ala Gln Ala Gln
                85                  90                  95

Thr Asp Arg Glu Ser Leu Arg Asn Leu Arg Gly Tyr Tyr Asn Gln Ser
            100                 105                 110

Glu Ala Gly Ser His Thr Leu Gln Ser Met Tyr Gly Cys Asp Val Gly
        115                 120                 125

Pro Asp Gly Arg Leu Leu Arg Gly His Asp Gln Tyr Ala Tyr Asp Gly
    130                 135                 140

Lys Asp Tyr Ile Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala
145                 150                 155                 160

Asp Thr Ala Ala Gln Ile Thr Gln Arg Lys Trp Glu Ala Ala Arg Glu
                165                 170                 175

Ala Glu Gln Arg Arg Ala Tyr Leu Glu Gly Glu Cys Val Glu Trp Leu
            180                 185                 190

Arg Arg Tyr Leu Glu Asn Gly Lys Asp Lys Leu Glu Arg Ala Asp Pro
        195                 200                 205

Pro Lys Thr His Val Thr His His Pro Ile Ser Asp His Glu Ala Thr
    210                 215                 220

Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr
225                 230                 235                 240

Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Thr Glu Leu Val Glu
                245                 250                 255

Thr Arg Pro Ala Gly Asp Arg Thr Phe Gln Lys Trp Ala Ala Val Val
            260                 265                 270
```

```
Val Pro Ser Gly Glu Glu Gln Arg Tyr Thr Cys His Val Gln His Glu
        275                 280                 285

Gly Leu Pro Lys Pro Leu Thr Leu Arg Trp Glu Pro Ser Ser Gln Ser
    290                 295                 300

Thr Val Pro Ile Val Gly Ile Val Ala Gly Leu Ala Val Leu Ala Val
305                 310                 315                 320

Val Val Ile Gly Ala Val Val Ala Ala Val Met Cys Arg Arg Lys Ser
                325                 330                 335

Ser Gly Gly Lys Gly Gly Ser Tyr Ser Gln Ala Ala Cys Ser Asp Ser
            340                 345                 350

Ala Gln Gly Ser Asp Val Ser Leu Thr Ala
        355                 360
```

<210> 28
<211> 366
<212> PRT
<213> Homo sapiens

<400> 28

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Met Arg Val Met Ala Pro Arg Ala Leu Leu Leu Leu Leu Ser Gly Gly
1               5                   10                  15

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

Asp Thr Ala Val Ser Arg Pro Gly Arg Gly Glu Pro Arg Phe Ile Ser
        35                  40                  45

Val Gly Tyr Val Asp Asp Thr Gln Phe Val Arg Phe Asp Ser Asp Ala
    50                  55                  60

Ala Ser Pro Arg Gly Glu Pro Arg Ala Pro Trp Val Glu Gln Glu Gly
65                  70                  75                  80

Pro Glu Tyr Trp Asp Arg Glu Thr Gln Asn Tyr Lys Arg Gln Ala Gln
                85                  90                  95
```

```
Ala Asp Arg Val Ser Leu Arg Asn Leu Arg Gly Tyr Tyr Asn Gln Ser
            100                 105                 110

Glu Asp Gly Ser His Thr Leu Gln Arg Met Tyr Gly Cys Asp Leu Gly
        115                 120                 125

Pro Asp Gly Arg Leu Leu Arg Gly Tyr Asp Gln Ser Ala Tyr Asp Gly
    130                 135                 140

Lys Asp Tyr Ile Ala Leu Asn Glu Asp Leu Arg Ser Trp Thr Ala Ala
145                 150                 155                 160

Asp Thr Ala Ala Gln Ile Thr Gln Arg Lys Leu Glu Ala Ala Arg Ala
                165                 170                 175

Ala Glu Gln Leu Arg Ala Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu
            180                 185                 190

Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln Arg Ala Glu Pro
        195                 200                 205

Pro Lys Thr His Val Thr His His Pro Leu Ser Asp His Glu Ala Thr
    210                 215                 220

Leu Arg Cys Trp Ala Leu Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr
225                 230                 235                 240

Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Thr Glu Leu Val Glu
                245                 250                 255

Thr Arg Pro Ala Gly Asp Gly Thr Phe Gln Lys Trp Ala Ala Val Val
            260                 265                 270

Val Pro Ser Gly Gln Glu Gln Arg Tyr Thr Cys His Met Gln His Glu
        275                 280                 285

Gly Leu Gln Glu Pro Leu Thr Leu Ser Trp Glu Pro Ser Ser Gln Pro
    290                 295                 300

Thr Ile Pro Ile Met Gly Ile Val Ala Gly Leu Ala Val Leu Val Val
305                 310                 315                 320
```

```
Leu Ala Val Leu Gly Ala Val Val Thr Ala Met Met Cys Arg Arg Lys
               325                 330                 335

Ser Ser Gly Gly Lys Gly Gly Ser Cys Ser Gln Ala Ala Cys Ser Asn
            340                 345                 350

Ser Ala Gln Gly Ser Asp Glu Ser Leu Ile Thr Cys Lys Ala
        355                 360                 365
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Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Xaa Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Xaa Xaa Thr
50 55 60

Xaa Xaa Xaa Lys Ala Xaa Ser Gln Xaa Xaa Arg Xaa Xaa Leu Xaa Xaa
65 70 75 80

Xaa Xaa Xaa Tyr Tyr Asn Gln Ser Glu Xaa Gly Ser His Thr Xaa Gln
85 90 95

Xaa Met Xaa Gly Cys Asp Val Gly Xaa Asp Xaa Arg Phe Leu Arg Gly
100 105 110

Tyr Xaa Gln Xaa Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Xaa Glu
115 120 125

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Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Xaa Thr Xaa
    130                 135                 140

Xaa Lys Trp Glu Xaa Xaa Xaa Glu Ala Glu Gln Xaa Arg Xaa Tyr Leu
145                 150                 155                 160

Xaa Gly Xaa Cys Val Xaa Xaa Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Xaa Pro Lys Thr His Met Thr His His
            180                 185                 190

Xaa Xaa Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Xaa Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Xaa Val Val Val Pro Ser Gly Xaa Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Xaa
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Arg Gly Glu Pro Arg Phe Ile Xaa Val Gly Tyr Val Asp Asp Thr Xaa
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Xaa Ser Pro Arg Xaa Xaa Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Arg Xaa Thr
50 55 60

Gln Xaa Xaa Lys Thr Xaa Xaa Thr Gln Xaa Tyr Xaa Xaa Asn Leu Xaa
65 70 75 80

Xaa Xaa Xaa Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Xaa Xaa Gln
85 90 95

Xaa Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Xaa Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Xaa Gln
130 135 140

Arg Lys Xaa Glu Ala Ala Arg Xaa Ala Glu Gln Xaa Arg Xaa Tyr Leu
145 150 155 160

Glu Gly Xaa Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Xaa Xaa Leu Xaa Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
180 185 190

Pro Xaa Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225 230 235 240

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Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
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Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
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20 25 30

Phe Val Xaa Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

Gln Xaa Tyr Lys Arg Gln Ala Gln Xaa Asp Arg Val Xaa Leu Arg Xaa
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Xaa Xaa Ser His Xaa Xaa Gln
85 90 95

Xaa Met Xaa Gly Cys Asp Xaa Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Xaa Xaa Gln Xaa Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Xaa Glu Ala Ala Arg Xaa Ala Glu Gln Xaa Arg Ala Tyr Leu
145 150 155 160

Glu Gly Xaa Cys Val Glu Trp Leu Arg Arg Tyr Leu Xaa Asn Gly Lys
165 170 175

Xaa Thr Leu Gln Arg Ala Glu Xaa Pro Lys Thr His Val Thr His His
180 185 190

Pro Xaa Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Xaa Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Xaa Val Pro Ser Gly Xaa Glu Gln Arg
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Tyr Thr Cys His Xaa Gln His Glu Gly Leu Xaa Glu Pro Leu Thr Leu
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Xaa Trp Xaa Pro
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20 25 30

Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr

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    50                  55                  60

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Xaa Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Trp Met His Gly Cys Glu Leu Gly Pro Asp Xaa Arg Phe Leu Arg Gly
            100                 105                 110

Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp Tyr Leu Thr Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Val Asp Thr Ala Ala Gln Ile Ser Glu
    130                 135                 140

Gln Lys Ser Asn Asp Ala Ser Glu Ala Glu His Gln Xaa Xaa Tyr Leu
145                 150                 155                 160

Glu Asp Thr Cys Val Glu Trp Leu His Lys Tyr Leu Glu Lys Gly Lys
                165                 170                 175

Glu Thr Leu Leu His Leu Glu Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Gln Asp Gly Glu Gly His
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Xaa Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Xaa Glu Pro Val Thr Leu
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Arg Trp Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile
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Phe Leu Arg Phe Asp Ser Asp Ala Ala Ile Pro Arg Met Glu Pro Arg
35 40 45

Glu Xaa Trp Val Glu Gln Glu Gly Pro Gln Tyr Trp Glu Trp Thr Thr
50 55 60

Gly Tyr Ala Lys Ala Asn Ala Gln Thr Asp Arg Val Ala Leu Arg Asn
65 70 75 80

Leu Leu Arg Arg Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

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Gly Met Asn Gly Cys Asp Met Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr His Gln His Ala Tyr Asp Gly Lys Asp Tyr Ile Ser Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Val Ala Gln Ile Thr Gln
    130                 135                 140

Arg Phe Tyr Glu Ala Glu Glu Tyr Ala Glu Glu Phe Arg Thr Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Leu Glu Leu Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Ala His Val Ala His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Glu Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Xaa Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Gln Pro Leu Ile Leu
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Arg Trp Glu Gln Ser Xaa Gln Pro Thr Ile Pro Ile
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20 25 30

Phe Xaa Arg Phe Asp Ser Asp Ser Ala Cys Pro Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Val Glu Xaa Glu Gly Pro Glu Tyr Trp Glu Glu Glu Thr
50 55 60

Arg Asn Thr Lys Ala His Ala Gln Thr Asp Arg Met Asn Leu Gln Thr

65 70 75 80

Xaa Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Ser Ser His Thr Leu Gln
85 90 95

Trp Met Ile Xaa Cys Asp Leu Xaa Xaa Asp Gly Arg Leu Xaa Arg Gly
100 105 110

Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Leu Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Ser Lys
130 135 140

Arg Lys Cys Glu Ala Ala Asn Val Ala Glu Gln Arg Arg Ala Xaa Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Xaa Arg Xaa Leu Glu Asn Gly Lys
165 170 175

Glu Xaa Leu Gln Arg Ala Asp Pro Xaa Lys Thr His Val Thr His His
180 185 190

Pro Val Phe Asp Tyr Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Ile Leu Thr Trp Gln Xaa Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Val Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
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Tyr Xaa Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Met Leu
260 265 270

Arg Trp Xaa Gln Ser Ser Leu Pro Thr Ile Pro Ile
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<223> X is glutamine or glutamic acid

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<400> 35

Gly Ser His Ser Met Arg Tyr Phe Xaa Thr Ser Val Ser Arg Pro Gly
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Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Xaa Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Xaa Xaa Thr
50 55 60

Xaa Xaa Xaa Lys Ala Xaa Ser Gln Xaa Xaa Arg Xaa Xaa Leu Xaa Xaa
65 70 75 80

Xaa Xaa Xaa Tyr Tyr Asn Gln Ser Glu Xaa Gly Ser His Thr Xaa Gln
85 90 95

Xaa Met Xaa Gly Cys Asp Val Gly Xaa Asp Xaa Arg Phe Leu Arg Gly
100 105 110

Tyr Xaa Gln Xaa Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Xaa Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Xaa Thr Xaa
130 135 140

Xaa Lys Trp Glu Xaa Xaa Xaa Glu Ala Glu Gln Xaa Arg Xaa Tyr Leu
145 150 155 160

Xaa Gly Xaa Cys Val Xaa Xaa Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Xaa Pro Lys Thr His Met Thr His His

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            180                 185                 190

Xaa Xaa Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Xaa Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Xaa Val Val Val Pro Ser Gly Xaa Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Xaa
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<222>  (12)..(12)
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<223>  X is alanine, serine, or threonine
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<223> X is alanine or threonine

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<220>
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<222> (46)..(46)
<223> X is alanine or threonine

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<223> X is glutamic acid or asparagine

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<222> (66)..(66)
<223> X is isoleucine or lysine

<220>
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<222> (67)..(67)
<223> X is tyrosine, phenylalanie, serine, or cystine

<220>
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<223> X is asparagine or glutamine

<220>
<221> Misc_feature
<222> (71)..(71)
<223> X is alanine or threonine

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<222> (74)..(74)
<223> X is aspartic acid or tyrosine

<220>
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<222> (76)..(76)
<223> X is glutamic acid or valine

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<223> X is serine or asparagine

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<223> X is threonine, asparagine, or isoleucine

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<222> (81)..(81)
<223> X is alanine or leucine

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<221> Misc_feature
<222> (82)..(82)
<223> X is leucine or arginine

<220>
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<222> (83)..(83)
<223> X is arginine or glycine

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<222> (94)..(94)
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<223> X is leucine or isoleucine

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<223> X is arginine or serine

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<223> X is arginine or serine

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<223> X is S or T

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<222> (147)..(147)
<223> X is L or W

<220>
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<222> (152)..(152)
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<223> Xaa is R, D, L

<220>
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<222> (158)..(158)
<223> Xaa A or T

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<223> X is leucine, glutamic acid, or threonine

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<221> Misc_feature
<222> (178)..(178)
<223> X is lysine or threonine

<220>
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<222> (180)..(180)
<223> X is glutamic acid or glutamine

<220>
<221> Misc_feature
<222> (194)..(194)
<223> X is isoleucine or valine

<400> 36

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Gly Ser His Ser Met Arg Tyr Phe Xaa Thr Xaa Xaa Ser Arg Pro Gly
1               5                  10                  15


Arg Gly Glu Pro Arg Phe Ile Xaa Val Gly Tyr Val Asp Asp Thr Xaa
            20                  25                  30


Phe Val Arg Phe Asp Ser Asp Ala Xaa Ser Pro Arg Xaa Xaa Pro Arg
        35                  40                  45


Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Arg Xaa Thr
    50                  55                  60
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Gln Xaa Xaa Lys Thr Xaa Xaa Thr Gln Xaa Tyr Xaa Xaa Asn Leu Xaa
65 70 75 80

Xaa Xaa Xaa Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Xaa Xaa Gln
85 90 95

Xaa Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Xaa Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Xaa Gln
130 135 140

Arg Lys Xaa Glu Ala Ala Arg Xaa Ala Glu Gln Xaa Arg Xaa Tyr Leu
145 150 155 160

Glu Gly Xaa Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Xaa Xaa Leu Xaa Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
180 185 190

Pro Xaa Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 37
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<212> PRT
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<220>
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<223> X is cysteine or glycine

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<222> (6)..(6)
<223> X is arginine or lysine

<220>
<221> Misc_feature
<222> (9)..(9)
<223> X is phenylalanine, tyrosine, serine, or aspartic acid

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<221> Misc_feature
<222> (14)..(14)
<223> X is arginine or tryptophan

<220>
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<222> (21)..(21)
<223> X is histidine or arginine

<220>
<221> Misc_feature
<222> (24)..(24)
<223> X is alanine or serine

<220>
<221> Misc_feature
<222> (35)..(35)
<223> X is glutamine or arginine

<220>
<221> Misc_feature
<222> (49)..(49)
<223> X is alanine or arginine

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<221> Misc_feature
<222> (66)..(66)
<223> X is asparagine, or lysine

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<223> X is threonine or alanine

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<223> X is serine or asparagine

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<222> (80)..(80)
<223> X is asparagine or lysine

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<223> X is alanine or aspartic acid

<220>
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<222> (91)..(91)
<223> X is glycine or arginine

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<222> (94)..(94)
<223> X is threonine or isoleucine

<220>
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<223> X is leucine or isoleucine

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<223> X is tryptophan or arginine

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<222> (99)..(99)
<223> X is cysteine, tyrosine, phenylalanine, or serine

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<223> X is leucine or valine

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<223> X is tyrosine or histidine

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<223> X is aspartic acid or asparagine

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<222> (177)..(177)
<223> X is glutamic acid or lysine

<220>
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<222> (184)..(184)
<223> X is histidine or proline

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<222> (194)..(194)
<223> X is arginine or valine

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<223> X is tryptophan or arginine

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<223> X is valine or methionine

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<223> X is glutamic acid or lysine

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<223> X is methionine or valine

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<223> X is proline or glycine

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Arg Gly Glu Pro Xaa Phe Ile Xaa Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Xaa Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

Gln Xaa Tyr Lys Arg Gln Ala Gln Xaa Asp Arg Val Xaa Leu Arg Xaa
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Xaa Xaa Ser His Xaa Xaa Gln
85 90 95

Xaa Met Xaa Gly Cys Asp Xaa Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

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Xaa Xaa Gln Xaa Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Xaa Glu Ala Ala Arg Xaa Ala Glu Gln Xaa Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Xaa Cys Val Glu Trp Leu Arg Arg Tyr Leu Xaa Asn Gly Lys
                165                 170                 175

Xaa Thr Leu Gln Arg Ala Glu Xaa Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Xaa Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Xaa Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Xaa Val Pro Ser Gly Xaa Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Xaa Gln His Glu Gly Leu Xaa Glu Pro Leu Thr Leu
            260                 265                 270

Xaa Trp Xaa Pro
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<222> (255)..(255)
<223> Xaa is Q or P

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<223> Xaa is P or S

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Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30


Phe Val Arg Phe Asp Asn Asp Ala Ala Ser Pro Arg Met Val Pro Arg
        35                  40                  45


Ala Pro Trp Met Glu Gln Glu Gly Ser Glu Tyr Trp Asp Arg Glu Thr
    50                  55                  60


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


Leu Arg Gly Tyr Tyr Asn Gln Ser Xaa Ala Gly Ser His Thr Leu Gln
                85                  90                  95


Trp Met His Gly Cys Glu Leu Gly Pro Asp Xaa Arg Phe Leu Arg Gly
            100                 105                 110
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```
Tyr Glu Gln Phe Ala Tyr Asp Gly Lys Asp Tyr Leu Thr Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Val Asp Thr Ala Ala Gln Ile Ser Glu
    130                 135                 140

Gln Lys Ser Asn Asp Ala Ser Glu Ala Glu His Gln Xaa Xaa Tyr Leu
145                 150                 155                 160

Glu Asp Thr Cys Val Glu Trp Leu His Lys Tyr Leu Glu Lys Gly Lys
                165                 170                 175

Glu Thr Leu Leu His Leu Glu Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Gln Asp Gly Glu Gly His
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Xaa Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Xaa Glu Pro Val Thr Leu
            260                 265                 270

Arg Trp Lys Pro Ala Ser Gln Pro Thr Ile Pro Ile
        275                 280
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<210> 39
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<222> (50)..(50)
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<222> (251)..(251)
<223> Xaa is S or P

<220>
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<222> (278)..(278)
<223> Xaa is P or L

<400> 39

Gly Ser His Ser Leu Arg Xaa Phe Ser Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Tyr Ile Ala Val Glu Tyr Val Asp Asp Thr Gln
20 25 30

Phe Leu Arg Phe Asp Ser Asp Ala Ala Ile Pro Arg Met Glu Pro Arg
35 40 45

Glu Xaa Trp Val Glu Gln Glu Gly Pro Gln Tyr Trp Glu Trp Thr Thr
50 55 60

Gly Tyr Ala Lys Ala Asn Ala Gln Thr Asp Arg Val Ala Leu Arg Asn
65 70 75 80

Leu Leu Arg Arg Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Gly Met Asn Gly Cys Asp Met Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr His Gln His Ala Tyr Asp Gly Lys Asp Tyr Ile Ser Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Val Ala Gln Ile Thr Gln
130 135 140

```
Arg Phe Tyr Glu Ala Glu Glu Tyr Ala Glu Glu Phe Arg Thr Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Leu Glu Leu Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Ala His Val Ala His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Glu Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Xaa Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Gln Pro Leu Ile Leu
            260                 265                 270

Arg Trp Glu Gln Ser Xaa Gln Pro Thr Ile Pro Ile
        275                 280
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<210> 40
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<220>

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<220>
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<222> (34)..(34)
<223> Xaa is L or V

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<223> Xaa is P or L

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<223> Xaa is G or D

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<223> Xaa is G or V

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<223> Xaa is L or I

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<222> (159)..(159)
<223> Xaa is Y or H

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<222> (169)..(169)
<223> Xaa is H or R

<220>
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<222> (171)..(171)
<223> Xaa is Y or H

<220>
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<222> (178)..(178)
<223> Xaa is M or T

<220>
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<222> (185)..(185)
<223> Xaa is P or A

<220>
<221> misc_feature
<222> (219)..(219)
<223> Xaa is R, W, or Q

<220>
<221> misc_feature
<222> (258)..(258)
<223> Xaa is T or M

<220>
<221> misc_feature
<222> (275)..(275)
<223> Xaa is K or E

<400> 40

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1               5                   10                  15


Arg Gly Glu Pro Arg Phe Ile Ala Met Gly Xaa Val Asp Asp Xaa Gln
            20                  25                  30


Phe Xaa Arg Phe Asp Ser Asp Ser Ala Cys Pro Arg Met Glu Pro Arg
        35                  40                  45


Ala Pro Trp Val Glu Xaa Glu Gly Pro Glu Tyr Trp Glu Glu Glu Thr
    50                  55                  60


Arg Asn Thr Lys Ala His Ala Gln Thr Asp Arg Met Asn Leu Gln Thr
65                  70                  75                  80


Xaa Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Ser Ser His Thr Leu Gln
                85                  90                  95


Trp Met Ile Xaa Cys Asp Leu Xaa Xaa Asp Gly Arg Leu Xaa Arg Gly
            100                 105                 110


Tyr Glu Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Leu Ala Leu Asn Glu
        115                 120                 125
```

```
Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Ser Lys
    130                 135                 140

Arg Lys Cys Glu Ala Ala Asn Val Ala Glu Gln Arg Arg Ala Xaa Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Xaa Arg Xaa Leu Glu Asn Gly Lys
                165                 170                 175

Glu Xaa Leu Gln Arg Ala Asp Pro Xaa Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Phe Asp Tyr Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Ile Leu Thr Trp Gln Xaa Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Val Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Xaa Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Met Leu
            260                 265                 270

Arg Trp Xaa Gln Ser Ser Leu Pro Thr Ile Pro Ile
        275                 280
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<210> 41
<211> 275
<212> PRT
<213> Homo sapiens

<400> 41

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Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30
```

```
Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Lys Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
    50                  55                  60

Arg Asn Met Lys Ala His Ser Gln Thr Asp Arg Ala Asn Leu Gly Thr
65                  70                  75                  80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
                85                  90                  95

Ile Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Val His Ala Ala Glu Gln Arg Arg Val Tyr Leu
145                 150                 155                 160

Glu Gly Arg Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255
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Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
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<210> 42
<211> 275
<212> PRT
<213> Homo sapiens

<400> 42

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Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
        35                  40                  45

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

Gln Ile Tyr Lys Ala Gln Ala Gln Thr Asp Arg Glu Ser Leu Arg Asn
65                  70                  75                  80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
```

```
                165                 170                 175

Asp Lys Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 43
<211> 275
<212> PRT
<213> Homo sapiens

<400> 43

```
Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

Gln Asn Tyr Lys Arg Gln Ala Gln Ala Asp Arg Val Ser Leu Arg Asn
65                  70                  75                  80
```

```
Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Leu Glu Ala Ala Arg Ala Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Leu Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Met Gln His Glu Gly Leu Gln Glu Pro Leu Thr Leu
            260                 265                 270

Ser Trp Glu
        275
```

<210> 44
<211> 276

<212> PRT
<213> Homo sapiens

<400> 44

Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
50 55 60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65 70 75 80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
130 135 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
180 185 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 45
<211> 274
<212> PRT
<213> Mus musculus

<400> 45

Gly Pro His Ser Leu Arg Tyr Phe Val Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Leu Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Asp Asn Pro Arg Phe Glu Pro Arg
35 40 45

Ala Pro Trp Met Glu Gln Glu Gly Pro Glu Tyr Trp Glu Glu Gln Thr
50 55 60

Gln Arg Ala Lys Ser Asp Glu Gln Trp Phe Arg Val Ser Leu Arg Thr
65 70 75 80

Ala Gln Arg Tyr Tyr Asn Gln Ser Lys Gly Gly Ser His Thr Phe Gln
85 90 95

Arg Met Phe Gly Cys Asp Val Gly Ser Asp Trp Arg Leu Leu Arg Gly
100 105 110

```
Tyr Gln Gln Phe Ala Tyr Asp Gly Arg Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Lys Thr Trp Thr Ala Ala Asp Thr Ala Ala Leu Ile Thr Arg
    130                 135                 140

Arg Lys Trp Glu Gln Ala Gly Asp Ala Glu Tyr Tyr Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Leu Gly Asn
                165                 170                 175

Glu Thr Leu Leu Arg Thr Asp Ser Pro Lys Ala His Val Thr Tyr His
            180                 185                 190

Pro Arg Ser Gln Val Asp Val Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Asp Ile Thr Leu Thr Trp Gln Leu Asn Gly Glu Asp Leu
    210                 215                 220

Thr Gln Asp Met Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Leu Gly Lys Glu Gln Asn
                245                 250                 255

Tyr Thr Cys His Val His His Lys Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp
```

<210> 46
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 46

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15
```

```
Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240
```

```
Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 47
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 47

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125
```

```
Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Cys Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 48
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 48

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30
```

```
Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255
```

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 49
<211> 276
<212> PRT
<213> Homo sapiens

<400> 49

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
50 55 60

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
85 90 95

Ile Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
100 105 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
130 135 140

Arg Lys Trp Glu Ala Ala His Ala Ala Glu Gln Gln Arg Ala Tyr Leu
145 150 155 160

```
Glu Gly Arg Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Leu
        275
```

<210> 50
<211> 276
<212> PRT
<213> Homo sapiens

<400> 50

```
Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
    50                  55                  60
```

```
Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65                  70                  75                  80

Ala Leu Arg Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 51
<211> 276
<212> PRT
<213> Homo sapiens

<400> 51

```
Gly Ser His Ser Met Arg Tyr Phe Thr Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Ile Gln
                85                  90                  95

Met Met Tyr Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr Gln Gln Asp Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
```

```
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ser Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275


<210>  52
<211>  219
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (8)..(8)
<223>  any amino acid other than aspartic acid

<400>  52

Phe Thr Val Thr Val Pro Lys Xaa Leu Tyr Val Val Glu Tyr Gly Ser
1               5                   10                  15

Asn Met Thr Ile Glu Cys Lys Phe Pro Val Glu Lys Gln Leu Asp Leu
            20                  25                  30

Ala Ala Leu Ile Val Tyr Trp Glu Met Glu Asp Lys Asn Ile Ile Gln
        35                  40                  45

Phe Val His Gly Glu Glu Asp Leu Lys Val Gln His Ser Ser Tyr Arg
    50                  55                  60

Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser Leu Gly Asn Ala Ala
```

```
65                  70                  75                  80

Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr Arg Cys
                85                  90                  95

Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Val Lys Val
            100                 105                 110

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

Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala Glu Gly Tyr Pro Lys
    130                 135                 140

Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln Val Leu Ser Gly Lys
145                 150                 155                 160

Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn Val Thr
                165                 170                 175

Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu Ile Phe Tyr Cys Thr
            180                 185                 190

Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr Ala Glu Leu Val Ile
        195                 200                 205

Pro Gly Asn Ile Leu Asn Val Ser Ile Lys Ile
    210                 215
```

<210> 53
<211> 219
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (36)..(36)
<223> any amino acid other than isoleucine

<400> 53

```
Phe Thr Val Thr Val Pro Lys Asp Leu Tyr Val Val Glu Tyr Gly Ser
```

```
1               5                   10                  15

Asn Met Thr Ile Glu Cys Lys Phe Pro Val Glu Lys Gln Leu Asp Leu
            20                  25                  30

Ala Ala Leu Xaa Val Tyr Trp Glu Met Glu Asp Lys Asn Ile Ile Gln
        35                  40                  45

Phe Val His Gly Glu Glu Asp Leu Lys Val Gln His Ser Ser Tyr Arg
    50                  55                  60

Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser Leu Gly Asn Ala Ala
65                  70                  75                  80

Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr Arg Cys
                85                  90                  95

Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Val Lys Val
            100                 105                 110

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

Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala Glu Gly Tyr Pro Lys
    130                 135                 140

Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln Val Leu Ser Gly Lys
145                 150                 155                 160

Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn Val Thr
                165                 170                 175

Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu Ile Phe Tyr Cys Thr
            180                 185                 190

Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr Ala Glu Leu Val Ile
        195                 200                 205

Pro Gly Asn Ile Leu Asn Val Ser Ile Lys Ile
    210                 215
```

<210> 54

<211> 219
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (54)..(54)
<223> any amino acid other than glutamine

<400> 54

Phe Thr Val Thr Val Pro Lys Asp Leu Tyr Val Val Glu Tyr Gly Ser
1 5 10 15

Asn Met Thr Ile Glu Cys Lys Phe Pro Val Glu Lys Gln Leu Asp Leu
20 25 30

Ala Ala Leu Ile Val Tyr Trp Glu Met Glu Asp Lys Asn Ile Ile Gln
35 40 45

Phe Val His Gly Glu Xaa Asp Leu Lys Val Gln His Ser Ser Tyr Arg
50 55 60

Gln Arg Ala Arg Leu Leu Lys Asp Gln Leu Ser Leu Gly Asn Ala Ala
65 70 75 80

Leu Gln Ile Thr Asp Val Lys Leu Gln Asp Ala Gly Val Tyr Arg Cys
85 90 95

Met Ile Ser Tyr Gly Gly Ala Asp Tyr Lys Arg Ile Thr Val Lys Val
100 105 110

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

Val Thr Ser Glu His Glu Leu Thr Cys Gln Ala Glu Gly Tyr Pro Lys
130 135 140

Ala Glu Val Ile Trp Thr Ser Ser Asp His Gln Val Leu Ser Gly Lys
145 150 155 160

Thr Thr Thr Thr Asn Ser Lys Arg Glu Glu Lys Leu Phe Asn Val Thr

```
                165                 170                 175

Ser Thr Leu Arg Ile Asn Thr Thr Thr Asn Glu Ile Phe Tyr Cys Thr
            180                 185                 190

Phe Arg Arg Leu Asp Pro Glu Glu Asn His Thr Ala Glu Leu Val Ile
        195                 200                 205

Pro Gly Asn Ile Leu Asn Val Ser Ile Lys Ile
    210                 215


<210>  55
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (19)..(19)
<223>  any amino acid other than asparagine

<400>  55

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1               5                   10                  15

Gly His Xaa Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20                  25                  30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
        35                  40                  45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
                85                  90                  95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
```

```
            100                 105                 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
        115                 120                 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205


<210>  56
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (63)..(63)
<223>  any amino acid other than asparagine

<400>  56

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1               5                   10                  15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20                  25                  30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
        35                  40                  45

Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr Xaa Asn
```

```
    50                  55                  60

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
                85                  90                  95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
            100                 105                 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
        115                 120                 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205


<210>  57
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (67)..(67)
<223>  any amino acid other than isoleucine

<400>  57

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
```

1 5 10 15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
20 25 30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
35 40 45

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

Leu Ser Xaa Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly Thr Tyr
65 70 75 80

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145 150 155 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
165 170 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
180 185 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
195 200 205

<210> 58
<211> 208
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (86)..(86)
<223> any amino acid other than lysine

<400> 58

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1   5   10   15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20   25   30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
        35   40   45

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

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

Glu Cys Val Val Leu Xaa Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
                85   90   95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
            100   105   110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
        115   120   125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145   150   155   160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165   170   175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn

```
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205


<210>  59
<211>  5
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (4)..(4)
<223>  any amino acid other than proline

<400>  59

Val Pro Gly Xaa Gly
1               5


<210>  60
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (157)..(157)
<223>  any amino acid other than glutamine

<400>  60

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1               5                   10                  15


Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20                  25                  30


Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
        35                  40                  45


Ile Trp Pro Glu Tyr Lys Asn Arg Thr Ile Phe Asp Ile Thr Asn Asn
```

```
    50                  55                  60

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
                85                  90                  95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
            100                 105                 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
        115                 120                 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Xaa Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205


<210>  61
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (158)..(158)
<223>  any amino acid other than aspartic acid

<400>  61

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
```

1 5 10 15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
20 25 30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
35 40 45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Xaa Pro Glu
145 150 155 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
165 170 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
180 185 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
195 200 205

<210> 62
<211> 208
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (25)..(25)
<223> any amino acid other than leucine

<400> 62

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1 5 10 15

Gly His Asn Val Ser Val Glu Glu Xaa Ala Gln Thr Arg Ile Tyr Trp
20 25 30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
35 40 45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145 150 155 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
165 170 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn

180 185 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
195 200 205

<210> 63
<211> 208
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (31)..(31)
<223> any amino acid other than tyrosine

<400> 63

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1 5 10 15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Xaa Trp
20 25 30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
35 40 45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

Ser Thr Ser Gly Gly Phe Pro Glu Pro His Leu Ser Trp Leu Glu Asn

```
    130                 135                 140

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205


<210>  64
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (33)..(33)
<223>  any amino acid other than glutamine

<400>  64

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1               5                   10                  15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20                  25                  30

Xaa Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
        35                  40                  45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
```

```
                85                  90                  95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
            100                 105                 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
        115                 120                 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205


<210>  65
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (38)..(38)
<223>  any amino acid other than methionine

<400>  65

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1               5                   10                  15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20                  25                  30

Gln Lys Glu Lys Lys Xaa Val Leu Thr Met Met Ser Gly Asp Met Asn
```

```
        35                  40                  45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
                85                  90                  95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
            100                 105                 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
        115                 120                 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205
```

<210> 66
<211> 208
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (39)..(39)
<223> any amino acid other than valine

<400> 66

```
Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1               5                  10                  15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20                  25                  30

Gln Lys Glu Lys Lys Met Xaa Leu Thr Met Met Ser Gly Asp Met Asn
        35                  40                  45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
                85                  90                  95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
            100                 105                 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
        115                 120                 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205
```

<210> 67

<211> 208
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (49)..(49)
<223> any amino acid other than isoleucine

<400> 67

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1 5 10 15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
20 25 30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
35 40 45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145 150 155 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr

```
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205


<210>  68
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (53)..(53)
<223>  any amino acid other than tyrosine

<400>  68

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1               5                   10                  15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20                  25                  30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
        35                  40                  45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
                85                  90                  95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
            100                 105                 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
```

```
        115                 120                 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205


<210>  69
<211>  208
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (60)..(60)
<223>  any amino acid other than aspartic acid

<400>  69

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1               5                   10                  15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
            20                  25                  30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
        35                  40                  45

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

Leu Ser Ile Val Ile Leu Ala Leu Arg Pro Ser Asp Glu Gly Thr Tyr
```

65 70 75 80

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145 150 155 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
165 170 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
180 185 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
195 200 205

<210> 70
<211> 208
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (108)..(108)
<223> any amino acid other than phenylalanine

<400> 70

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1 5 10 15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp

```
            20                  25                  30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
        35                  40                  45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
                85                  90                  95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Xaa Pro Thr Pro Ser
            100                 105                 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
        115                 120                 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu
145                 150                 155                 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
                165                 170                 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
            180                 185                 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
        195                 200                 205
```

<210> 71
<211> 208
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (156)..(156)
<223> any amino acid other than serine

<400> 71

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1 5 10 15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
20 25 30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
35 40 45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Pro Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Xaa Gln Asp Pro Glu
145 150 155 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
165 170 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
180 185 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn

195 200 205

<210> 72
<211> 208
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (111)..(111)
<223> any amino acid other than proline

<400> 72

Val Ile His Val Thr Lys Glu Val Lys Glu Val Ala Thr Leu Ser Cys
1 5 10 15

Gly His Asn Val Ser Val Glu Glu Leu Ala Gln Thr Arg Ile Tyr Trp
20 25 30

Gln Lys Glu Lys Lys Met Val Leu Thr Met Met Ser Gly Asp Met Asn
35 40 45

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

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

Glu Cys Val Val Leu Lys Tyr Glu Lys Asp Ala Phe Lys Arg Glu His
85 90 95

Leu Ala Glu Val Thr Leu Ser Val Lys Ala Asp Phe Pro Thr Xaa Ser
100 105 110

Ile Ser Asp Phe Glu Ile Pro Thr Ser Asn Ile Arg Arg Ile Ile Cys
115 120 125

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

Gly Glu Glu Leu Asn Ala Ile Asn Thr Thr Val Ser Gln Asp Pro Glu

145 150 155 160

Thr Glu Leu Tyr Ala Val Ser Ser Lys Leu Asp Phe Asn Met Thr Thr
165 170 175

Asn His Ser Phe Met Cys Leu Ile Lys Tyr Gly His Leu Arg Val Asn
180 185 190

Gln Thr Phe Asn Trp Asn Thr Thr Lys Gln Glu His Phe Pro Asp Asn
195 200 205

<210> 73
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (61)..(61)
<223> any amino acid other than asparagine

<400> 73

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

Lys Glu Lys Phe Asp Ser Val His Ser Lys Tyr Met Xaa Arg Thr Ser
50 55 60

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn

```
            100                 105                 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115                 120                 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220
```

<210> 74
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (66)..(66)
<223> any amino acid other than aspartic acid

<400> 74

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
            20                  25                  30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
```

```
        35                  40                  45

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

Phe Xaa Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
            100                 105                 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115                 120                 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220
```

<210> 75
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (70)..(70)
<223> any amino acid other than tryptophan

<400> 75

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Xaa Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
100 105 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
115 120 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
130 135 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145 150 155 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
165 170 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
180 185 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro

195 200 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
210 215 220

<210> 76
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (91)..(91)
<223> any amino acid other than histidine

<400> 76

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His Xaa Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
100 105 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
115 120 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys

```
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220


<210>  77
<211>  110
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (61)..(61)
<223>  any amino acid other than asparagine

<400>  77

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
            20                  25                  30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35                  40                  45

Lys Glu Lys Phe Asp Ser Val His Ser Lys Tyr Met Xaa Arg Thr Ser
    50                  55                  60

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
```

65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 78
<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (66)..(66)
<223> any amino acid other than aspartic acid

<400> 78

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Xaa Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 79

<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (70)..(70)
<223> any amino acid other than tryptophan

<400> 79

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Xaa Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 80
<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (91)..(91)
<223> any amino acid other than histidine

<400> 80

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His Xaa Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 81
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (41)..(41)
<223> any amino acid other than valine

<400> 81

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Xaa Leu Asn Glu Val Tyr Leu Gly

```
        35                  40                  45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
            100                 105                 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115                 120                 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220
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<210> 82
<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (41)..(41)
<223> any amino acid other than valine

<400> 82

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Xaa Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 83
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (35)..(35)
<223> any amino acid other than glutamine

<400> 83

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val

```
            20                  25                  30

Phe Trp Xaa Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35                  40                  45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
            100                 105                 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115                 120                 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220
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<210> 84
<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (35)..(35)
<223> any amino acid other than glutamine

<400> 84

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Xaa Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 85
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (33)..(33)
<223> any amino acid other than phenylalanine

<400> 85

Ala Pro Leu Lys Ile Gln Ala Tyr Phe Asn Glu Thr Ala Asp Leu Pro

1 5 10 15

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Xaa Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
100 105 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
115 120 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
130 135 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145 150 155 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
165 170 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
180 185 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
195 200 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
210 215 220

<210> 86

<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (33)..(33)
<223> any amino acid other than phenylalanine

<400> 86

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Xaa Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 87
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (72)..(72)
<223> any amino acid other than leucine

<400> 87

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
            20                  25                  30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35                  40                  45

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

Phe Asp Ser Asp Ser Trp Thr Xaa Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
            100                 105                 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115                 120                 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
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210 215 220

<210> 88
<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (72)..(72)
<223> any amino acid other than leucine

<400> 88

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

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

Phe Asp Ser Asp Ser Trp Thr Xaa Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 89
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (59)..(59)
<223> any amino acid other than tyrosine

<400> 89

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

Lys Glu Lys Phe Asp Ser Val His Ser Lys Xaa Met Asn Arg Thr Ser
50 55 60

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
100 105 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
115 120 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
130 135 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145 150 155 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
165 170 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
180 185 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro

195 200 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
210 215 220

<210> 90
<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (59)..(59)
<223> any amino acid other than tyrosine

<400> 90

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

Lys Glu Lys Phe Asp Ser Val His Ser Lys Xaa Met Asn Arg Thr Ser
50 55 60

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His His Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 91
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (61)..(61)
<223> any amino acid other than asparagine

<220>
<221> misc_feature
<222> (91)..(91)
<223> any amino acid other than histidine

<400> 91

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
            20   25   30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35   40   45

Lys Glu Lys Phe Asp Ser Val His Ser Lys Tyr Met Xaa Arg Thr Ser
    50   55   60

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65   70   75   80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His Xaa Lys Lys Pro Thr Gly
                85   90   95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
            100   105   110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115   120   125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130   135   140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145   150   155   160

```
Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220
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<210> 92
<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (61)..(61)
<223> any amino acid other than asparagine

<220>
<221> misc_feature
<222> (91)..(91)
<223> any amino acid other than histidine

<400> 92

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
            20                  25                  30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35                  40                  45

Lys Glu Lys Phe Asp Ser Val His Ser Lys Tyr Met Xaa Arg Thr Ser
    50                  55                  60

Phe Asp Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80
```

```
Asp Lys Gly Leu Tyr Gln Cys Ile Ile His Xaa Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
            100                 105                 110
```

<210> 93
<211> 224
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (66)..(66)
<223> any amino acid other than aspartic acid

<220>
<221> misc_feature
<222> (91)..(91)
<223> any amino acid other than histidine

<400> 93

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
            20                  25                  30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35                  40                  45

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

Phe Xaa Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His Xaa Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
            100                 105                 110
```

```
Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115                 120                 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220
```

<210> 94
<211> 110
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (66)..(66)
<223> any amino acid other than asparagine

<220>
<221> misc_feature
<222> (91)..(91)
<223> Xaa can be any amino acid other than His

<400> 94

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
```

```
            20                  25                  30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35                  40                  45

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

Phe Xaa Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His Xaa Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
            100                 105                 110


<210>  95
<211>  224
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  Misc_feature
<222>  (61)..(61)
<223>  any amino acid other than asparagine

<220>
<221>  Misc_feature
<222>  (66)..(66)
<223>  any amino acid other than aspartic acid

<220>
<221>  Misc_feature
<222>  (91)..(91)
<223>  any amino acid other than histidine

<400>  95

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
            20                  25                  30
```

```
Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
        35                  40                  45

Lys Glu Lys Phe Asp Ser Val His Ser Lys Tyr Met Xaa Arg Thr Ser
    50                  55                  60

Phe Xaa Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65                  70                  75                  80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His Xaa Lys Lys Pro Thr Gly
                85                  90                  95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu Ala Asn
            100                 105                 110

Phe Ser Gln Pro Glu Ile Val Pro Ile Ser Asn Ile Thr Glu Asn Val
        115                 120                 125

Tyr Ile Asn Leu Thr Cys Ser Ser Ile His Gly Tyr Pro Glu Pro Lys
    130                 135                 140

Lys Met Ser Val Leu Leu Arg Thr Lys Asn Ser Thr Ile Glu Tyr Asp
145                 150                 155                 160

Gly Ile Met Gln Lys Ser Gln Asp Asn Val Thr Glu Leu Tyr Asp Val
                165                 170                 175

Ser Ile Ser Leu Ser Val Ser Phe Pro Asp Val Thr Ser Asn Met Thr
            180                 185                 190

Ile Phe Cys Ile Leu Glu Thr Asp Lys Thr Arg Leu Leu Ser Ser Pro
        195                 200                 205

Phe Ser Ile Glu Leu Glu Asp Pro Gln Pro Pro Pro Asp His Ile Pro
    210                 215                 220
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<210> 96
<211> 110
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> Misc_feature
<222> (61)..(61)
<223> any amino acid other than asparagine

<220>
<221> Misc_feature
<222> (66)..(66)
<223> any amino acid other than aspartic acid

<220>
<221> Misc_feature
<222> (91)..(91)
<223> any amino acid other than histidine

<400> 96

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

Cys Gln Phe Ala Asn Ser Gln Asn Gln Ser Leu Ser Glu Leu Val Val
20 25 30

Phe Trp Gln Asp Gln Glu Asn Leu Val Leu Asn Glu Val Tyr Leu Gly
35 40 45

Lys Glu Lys Phe Asp Ser Val His Ser Lys Tyr Met Xaa Arg Thr Ser
50 55 60

Phe Xaa Ser Asp Ser Trp Thr Leu Arg Leu His Asn Leu Gln Ile Lys
65 70 75 80

Asp Lys Gly Leu Tyr Gln Cys Ile Ile His Xaa Lys Lys Pro Thr Gly
85 90 95

Met Ile Arg Ile His Gln Met Asn Ser Glu Leu Ser Val Leu
100 105 110

<210> 97
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (47)..(47)
<223> any amino acid other than lysine

<400> 97

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Xaa Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 98
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (147)..(147)
<223> any amino acid other than glutamine

<400> 98

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1   5   10   15

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
            20   25   30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35   40   45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50   55   60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65   70   75   80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85   90   95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100   105   110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115   120   125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130   135   140

Ala Trp Xaa Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145   150   155   160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165   170

<210> 99

<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (11)..(11)
<223> any amino acid other than methionine

<400> 99

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Xaa Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu

165 170

<210> 100
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (12)..(12)
<223> any amino acid other than phenylalanine

<400> 100

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Xaa Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

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

145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 101
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (14)..(14)
<223> any amino acid other than glutamine

<400> 101

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Xaa Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His

130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 102
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (15)..(15)
<223> any amino acid other than leucine

<400> 102

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Xaa Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala

115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 103
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (16)..(16)
<223> any amino acid other than valine

<400> 103

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Xaa
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala

100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 104
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (18)..(18)
<223> any amino acid other than glutamine

<400> 104

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Xaa Asn Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

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

```
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
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<210> 105
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (19)..(19)
<223> any amino acid other than asparagined

<400> 105

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Xaa Val Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
```

65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

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

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (20)..(20)
<223> any amino acid other than valine

<400> 106

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Xaa Leu Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe

```
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170


<210>  107
<211>  174
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (21)..(21)
<223>  any amino acid other than leucine

<400>  107

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Xaa Leu Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
```

```
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
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<210> 108
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (22)..(22)
<223> any amino acid other than leucine

<400> 108

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Xaa Ile Asp Gly Pro Leu Ser Trp Tyr Ser Asp
```

```
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
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<210> 109
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (23)..(23)
<223> any amino acid other than isoleucine

<400> 109

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
```

```
1               5                   10                  15

Ala Gln Asn Val Leu Leu Xaa Asp Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 110
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (24)..(24)
<223> any amino acid other than aspartic acid

<400> 110

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Xaa Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 111
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (25)..(25)
<223> any amino acid other than glycine

<400> 111

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Asp Xaa Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 112
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (26)..(26)
<223> any amino acid other than proline

<400> 112

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Xaa Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 113

<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (27)..(27)
<223> any amino acid other than leucine

<400> 113

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Xaa Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu

165 170

<210> 114
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (28)..(28)
<223> any amino acid other than serine

<400> 114

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Xaa Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

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

145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 115
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (29)..(29)
<223> any amino acid other than tryptophan

<400> 115

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Xaa Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His

```
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 116
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (30)..(30)
<223> any amino acid other than tyrosine

<400> 116

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Xaa Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
```

115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 117
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (31)..(31)
<223> any amino acid other than serine

<400> 117

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Xaa Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala

```
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 118
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (32)..(32)
<223> any amino acid other than aspartic acid

<400> 118

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Xaa
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
```

```
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170


<210>  119
<211>  174
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (33)..(33)
<223>  any amino acid other than proline

<400>  119

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Xaa Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
```

65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 120
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (34)..(34)
<223> any amino acid other than glycine

<400> 120

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Xaa Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe

```
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170


<210>  121
<211>  174
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (35)..(35)
<223>  any amino acid other than leucine

<400>  121

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Xaa Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
```

```
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 122
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (37)..(37)
<223> any amino acid other than glycine

<400> 122

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
```

```
            20                  25                  30

Pro Gly Leu Ala Xaa Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 123
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (38)..(38)
<223> any amino acid other than valine

<400> 123

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
```

```
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Xaa Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 124
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (39)..(39)
<223> any amino acid other than serine

<400> 124

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Xaa Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 125
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (40)..(40)
<223> any amino acid other than leucine

<400> 125

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Xaa Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 126
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (41)..(41)
<223> any amino acid other than threonine

<400> 126

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1   5   10   15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20   25   30

Pro Gly Leu Ala Gly Val Ser Leu Xaa Gly Gly Leu Ser Tyr Lys Glu
        35   40   45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50   55   60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65   70   75   80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85   90   95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100   105   110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115   120   125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130   135   140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145   150   155   160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165   170

<210> 127

<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (42)..(42)
<223> any amino acid other than glycine

<400> 127

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Xaa Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu

165 170

<210> 128
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (43)..(43)
<223> any amino acid other than glycine

<400> 128

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Xaa Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

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

145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 129
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (44)..(44)
<223> any amino acid other than leucine

<400> 129

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Xaa Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His

130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 130
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (45)..(45)
<223> any amino acid other than serine

<400> 130

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Xaa Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala

115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 131
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (46)..(46)
<223> any amino acid other than tyrosine

<400> 131

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Xaa Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala

```
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 132
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (48)..(48)
<223> any amino acid other than glutamic acid

<400> 132

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Xaa
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
```

```
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170


<210>  133
<211>  174
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (49)..(49)
<223>  any amino acid other than aspartic acid

<400>  133

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Xaa Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
```

65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 134
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (50)..(50)
<223> any amino acid other than threonine

<400> 134

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Xaa Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe

```
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 135
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (51)..(51)
<223> any amino acid other than lysine

<400> 135

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
```

```
        35                  40                  45

Asp Thr Xaa Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 136
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (52)..(52)
<223> any amino acid other than glutamic acid

<400> 136

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
```

```
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Xaa Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 137
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (64)..(64)
<223> any amino acid other than phenylalanine

<400> 137

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
```

```
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Xaa
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 138
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (65)..(65)
<223> any amino acid other than phenylalanine

<400> 138

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                  10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Xaa Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 139
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (66)..(66)
<223> any amino acid other than glutamine

<400> 139

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Xaa Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 140
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (67)..(67)
<223> any amino acid other than leucine

<400> 140

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Xaa Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 141

<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (68)..(68)
<223> any amino acid other than glutamic acid

<400> 141

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Xaa Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu

165 170

<210> 142
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (69)..(69)
<223> any amino acid other than leucine

<400> 142

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Xaa Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

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

145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 143
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (70)..(70)
<223> any amino acid other than arginine

<400> 143

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Xaa Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His

```
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 144
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (71)..(71)
<223> any amino acid other than arginine

<400> 144

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Xaa Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
```

115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 145
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (72)..(72)
<223> any amino acid other than valine

<400> 145

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Xaa Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala

```
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 146
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (73)..(73)
<223> any amino acid other than valine

<400> 146

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Xaa Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
```

85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 147
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (75)..(75)
<223> any amino acid other than glycine

<400> 147

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Xaa Glu Gly Ser Gly Ser

65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 148
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (76)..(76)
<223> any amino acid other than glutamic acid

<400> 148

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe

```
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Xaa Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 149
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (77)..(77)
<223> any amino acid other than glycine

<400> 149

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
```

```
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Xaa Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 150
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (78)..(78)
<223> any amino acid other than serine

<400> 150

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
```

```
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Xaa Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 151
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (104)..(104)
<223> any amino acid other than aspartic acid

<400> 151

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
```

```
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Xaa Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 152
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (105)..(105)
<223> any amino acid other than leucine

<400> 152

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                  10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Xaa Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 153
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (106)..(106)
<223> any amino acid other than proline

<400> 153

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Xaa Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 154
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (109)..(109)
<223> any amino acid other than serine

<400> 154

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1   5   10   15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20   25   30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35   40   45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50   55   60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65   70   75   80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85   90   95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Xaa Ser Glu Ala
            100   105   110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115   120   125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130   135   140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145   150   155   160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165   170

<210> 155

<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (110)..(110)
<223> any amino acid other than serine

<400> 155

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Xaa Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu

165 170

<210> 156
<211> 174
<212> PRT
<213> Artificial sequence

<220>
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<220>
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<222> (111)..(111)
<223> any amino acid other than glutamic acid

<400> 156

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Xaa Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

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

145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 157
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (113)..(113)
<223> any amino acid other than arginine

<400> 157

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Xaa Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His

```
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 158
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (114)..(114)
<223> any amino acid other than asparagine

<400> 158

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Xaa Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
```

115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 159
<211> 174
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> misc_feature
<222> (115)..(115)
<223> any amino acid other than serine

<400> 159

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala

```
            100                 105                 110

Arg Asn Xaa Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 160
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (117)..(117)
<223> any amino acid other than phenylalanine

<400> 160

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
```

85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Xaa Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 161
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (130)..(130)
<223> any amino acid other than glutamine

<400> 161

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

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

65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Xaa Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 162
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (131)..(131)
<223> any amino acid other than arginine

<400> 162

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe

```
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Xaa Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 163
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (132)..(132)
<223> any amino acid other than leucine

<400> 163

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
```

```
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Xaa Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 164
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (133)..(133)
<223> any amino acid other than glycine

<400> 164

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
```

```
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Xaa Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 165
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (134)..(134)
<223> any amino acid other than valine

<400> 165

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
```

```
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Xaa His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 166
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (135)..(135)
<223> any amino acid other than histidine

<400> 166

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                  10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val Xaa Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 167
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (136)..(136)
<223> any amino acid other than leucine

<400> 167

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Xaa His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 168
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (137)..(137)
<223> any amino acid other than histidine

<400> 168

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu Xaa Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 169

<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (138)..(138)
<223> any amino acid other than threonine

<400> 169

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Xaa Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu

165 170

<210> 170
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (139)..(139)
<223> any amino acid other than glutamic acid

<400> 170

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Xaa Ala Arg Ala Arg His
130 135 140

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

145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 171
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (141)..(141)
<223> any amino acid other than arginine

<400> 171

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Xaa Ala Arg His

```
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 172
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (143)..(143)
<223> any amino acid other than arginine

<400> 172

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
```

```
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Xaa His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 173
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (144)..(144)
<223> any amino acid other than histidine

<400> 173

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
```

```
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg Xaa
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170

<210>  174
<211>  174
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (146)..(146)
<223>  any amino acid other than tryptophan

<400>  174

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
```

```
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Xaa Gln Leu Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170


<210>  175
<211>  174
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (148)..(148)
<223>  any amino acid other than leucine

<400>  175

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
```

65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Xaa Thr Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 176
<211> 174
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> misc_feature
<222> (149)..(149)
<223> any amino acid other than threonine

<400> 176

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe

```
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Xaa Gln Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170


<210>  177
<211>  174
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (150)..(150)
<223>  any amino acid other than glutamine

<400>  177

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
```

35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Xaa Gly Ala Thr Val Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 178
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (151)..(151)
<223> any amino acid other than glycine

<400> 178

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp

```
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Xaa Ala Thr Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
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<210> 179
<211> 174
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (153)..(153)
<223> any amino acid other than threonine

<400> 179

```
Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
```

```
1               5                   10                  15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
            20                  25                  30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
        35                  40                  45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
    50                  55                  60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65                  70                  75                  80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
                85                  90                  95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
            100                 105                 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
        115                 120                 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
    130                 135                 140

Ala Trp Gln Leu Thr Gln Gly Ala Xaa Val Leu Gly Leu Phe Arg Val
145                 150                 155                 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
                165                 170
```

<210> 180
<211> 174
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> misc_feature
<222> (154)..(154)
<223> any amino acid other than valine

<400> 180

Pro Ala Gly Leu Leu Asp Leu Arg Gln Gly Met Phe Ala Gln Leu Val
1 5 10 15

Ala Gln Asn Val Leu Leu Ile Gly Gly Pro Leu Ser Trp Tyr Ser Asp
20 25 30

Pro Gly Leu Ala Gly Val Ser Leu Thr Gly Gly Leu Ser Tyr Lys Glu
35 40 45

Asp Thr Lys Glu Leu Val Val Ala Lys Ala Gly Val Tyr Tyr Val Phe
50 55 60

Phe Gln Leu Glu Leu Arg Arg Val Val Ala Gly Glu Gly Ser Gly Ser
65 70 75 80

Val Ser Leu Ala Leu His Leu Gln Pro Leu Arg Ser Ala Ala Gly Ala
85 90 95

Ala Ala Leu Ala Leu Thr Val Asp Leu Pro Pro Ala Ser Ser Glu Ala
100 105 110

Arg Asn Ser Ala Phe Gly Phe Gln Gly Arg Leu Leu His Leu Ser Ala
115 120 125

Gly Gln Arg Leu Gly Val His Leu His Thr Glu Ala Arg Ala Arg His
130 135 140

Ala Trp Gln Leu Thr Gln Gly Ala Thr Xaa Leu Gly Leu Phe Arg Val
145 150 155 160

Thr Pro Glu Ile Pro Ala Gly Leu Pro Ser Pro Arg Ser Glu
165 170

<210> 181
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (42)..(42)
<223> any amino acid other than phenylalanine

<400> 181

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1 5 10 15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
20 25 30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Tyr Met Pro Lys
35 40 45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
50 55 60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65 70 75 80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
85 90 95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
100 105 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
115 120 125

Ile Ser Thr Leu Thr
130

<210> 182
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (20)..(20)
<223> any amino acid other than aspartic acid

<400> 182

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1 5 10 15

Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
20 25 30

Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe Tyr Met Pro Lys
35 40 45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
50 55 60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65 70 75 80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
85 90 95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
100 105 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
115 120 125

Ile Ser Thr Leu Thr
130

<210> 183
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (15)..(15)
<223> any amino acid other than glutamic acid

<400> 183

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Xaa His

```
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130
```

<210> 184
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (16)..(16)
<223> any amino acid other than histidine

<400> 184

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Xaa
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
```

```
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130


<210>  185
<211>  133
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (16)..(16)
<223>  any amino acid other than histidine

<400>  185

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Xaa
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe Tyr Met Pro Lys
```

```
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130


<210>  186
<211>  133
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (45)..(45)
<223>  any amino acid other than tyrosine

<400>  186

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe Xaa Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
```

```
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130


<210>  187
<211>  133
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  misc_feature
<222>  (126)..(126)
<223>  any amino acid other than glutamine

<400>  187

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Phe Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
```

65 70 75 80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
85 90 95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
100 105 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Xaa Ser Ile
115 120 125

Ile Ser Thr Leu Thr
130

<210> 188
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (16)..(16)
<223> any amino acid other than histidine

<220>
<221> misc_feature
<222> (42)..(42)
<223> any amino acid other than phenylalanine

<400> 188

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Xaa
1 5 10 15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
20 25 30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Tyr Met Pro Lys
35 40 45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
50 55 60

```
Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130
```

<210> 189
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> misc_feature
<222> (20)..(20)
<223> any amino acid other than aspartic acid

<220>
<221> misc_feature
<222> (42)..(42)
<223> any amino acid other than phenylalanine

<400> 189

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1               5                   10                  15

Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60
```

```
Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130
```

<210> 190
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> Misc_feature
<222> (15)..(15)
<223> any amino acid other than glutamic aicd

<220>
<221> Misc_feature
<222> (20)..(20)
<223> any amino acid other than aspartic acid

<220>
<221> Misc_feature
<222> (42)..(42)
<223> any amino acid other than phenylalanine

<400> 190

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Xaa His
1               5                   10                  15

Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Tyr Met Pro Lys
```

```
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130


<210>  191
<211>  133
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  Misc_feature
<222>  (16)..(16)
<223>  any amino acid other than histidine

<220>
<221>  Misc_feature
<222>  (20)..(20)
<223>  any amino acid other than aspartic acid

<220>
<221>  Misc_feature
<222>  (42)..(42)
<223>  any amino acid other than phenylalanine

<400>  191

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Xaa
1               5                   10                  15
```

```
Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130
```

<210> 192
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> Misc_feature
<222> (20)..(20)
<223> any amino acid other than aspartic acid

<220>
<221> Misc_feature
<222> (42)..(42)
<223> any amino acid other than phenylalanine

<220>
<221> Misc_feature
<222> (126)..(126)
<223> any amino acid other than glutamine

<400> 192

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1 5 10 15

Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
20 25 30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Tyr Met Pro Lys
35 40 45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
50 55 60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65 70 75 80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
85 90 95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
100 105 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Xaa Ser Ile
115 120 125

Ile Ser Thr Leu Thr
130

<210> 193
<211> 133
<212> PRT
<213> Artificial sequence

<220>
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<220>
<221> Misc_feature
<222> (20)..(20)
<223> any amino acid other than aspartic acid

<220>
<221> Misc_feature
<222> (42)..(42)

<223> any amino acid other than phenylalanine

<220>
<221> Misc_feature
<222> (45)..(45)
<223> any amino acid other than tyrosine

<400> 193

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1 5 10 15

Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
20 25 30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Xaa Met Pro Lys
35 40 45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
50 55 60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65 70 75 80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
85 90 95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
100 105 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
115 120 125

Ile Ser Thr Leu Thr
130

<210> 194
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> Misc_feature

<222> (16)..(16)
<223> any amino acid other than histidine

<220>
<221> Misc_feature
<222> (20)..(20)
<223> any amino acid other than aspartic acid

<220>
<221> Misc_feature
<222> (42)..(42)
<223> any amino acid other than phenylalanine

<220>
<221> Misc_feature
<222> (45)..(45)
<223> any amino acid other than tyrosine

<400> 194

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Xaa
1 5 10 15

Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
20 25 30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Xaa Met Pro Lys
35 40 45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
50 55 60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65 70 75 80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
85 90 95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
100 105 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
115 120 125

Ile Ser Thr Leu Thr
130

<210> 195
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> Misc_feature
<222> (20)..(20)
<223> any amino acid other than aspartic acid

<220>
<221> Misc_feature
<222> (42)..(42)
<223> any amino acid other than phenylalanine

<220>
<221> Misc_feature
<222> (45)..(45)
<223> any amino acid other than tyrosine

<220>
<221> Misc_feature
<222> (126)..(126)
<223> any amino acid other than glutamine

<400> 195

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu His
1 5 10 15

Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
20 25 30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Xaa Met Pro Lys
35 40 45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
50 55 60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65 70 75 80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
85 90 95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala

```
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Xaa Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130
```

<210> 196
<211> 133
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> Misc_feature
<222> (16)..(16)
<223> any amino acid other than histidine

<220>
<221> Misc_feature
<222> (20)..(20)
<223> any amino acid other than aspartic acid

<220>
<221> Misc_feature
<222> (42)..(42)
<223> any amino acid other than phenylalanine

<220>
<221> Misc_feature
<222> (45)..(45)
<223> any amino acid other than tyrosine

<220>
<221> Misc_feature
<222> (126)..(126)
<223> any amino acid other than glutamine

<400> 196

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Xaa
1               5                   10                  15

Leu Leu Leu Xaa Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Xaa Met Pro Lys
```

```
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Xaa Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130


<210>  197
<211>  133
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence


<220>
<221>  Misc_feature
<222>  (16)..(16)
<223>  any amino acid other than histidine

<220>
<221>  Misc_feature
<222>  (42)..(42)
<223>  any amino acid other than phenylalanine

<220>
<221>  Misc_feature
<222>  (126)..(126)
<223>  any amino acid other than glutamine

<400>  197

Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Xaa
1               5                   10                  15
```

```
Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Xaa Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Xaa Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr
    130
```

<210> 198
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 198

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Lys Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
```

50 55 60

Arg Asn Met Lys Ala His Ser Gln Thr Asp Arg Ala Asn Leu Gly Thr
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
85 90 95

Ile Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
100 105 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
130 135 140

Arg Lys Trp Glu Ala Val His Ala Ala Glu Gln Arg Arg Val Tyr Leu
145 150 155 160

Glu Gly Arg Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
180 185 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Leu

275

<210> 199
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 199

Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
50 55 60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65 70 75 80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
130 135 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

```
Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 200
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 200

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
    50                  55                  60

Arg Asn Val Lys Ala Gln Ser Gln Thr Asp Arg Val Asp Leu Gly Thr
```

65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Ile Gln
85 90 95

Ile Met Tyr Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
130 135 140

Arg Lys Trp Glu Ala Ala His Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Asp Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
180 185 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Leu
275

<210> 201

<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 201

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
    50                  55                  60

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
                85                  90                  95

Ile Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Ala Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Arg Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190
```

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Leu
275

<210> 202
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 202

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
50 55 60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65 70 75 80

Ala Leu Arg Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln

85 90 95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
180 185 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 203
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 203

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
50 55 60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65 70 75 80

Ala Leu Arg Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
130 135 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
180 185 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 204
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 204

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
50 55 60

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

Ala Leu Arg Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly

```
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275


<210>  205
<211>  276
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence

<400>  205
```

```
Gly Ser His Ser Met Arg Tyr Phe Thr Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Ile Gln
                85                  90                  95

Met Met Tyr Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr Gln Gln Asp Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220
```

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ser Val Val Val Pro Ser Gly Gln Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 206
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 206

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
85 90 95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr Gln Gln Asp Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu

```
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Thr Ala His Glu Ala Glu Gln Trp Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ser Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 207
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 207

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15
```

```
Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
        35                  40                  45

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

Gln Ile Tyr Lys Ala Gln Ala Gln Thr Asp Arg Glu Ser Leu Arg Asn
65                  70                  75                  80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Asp Lys Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240
```

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 208
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 208

Gly Ser His Ser Met Arg Tyr Phe Asp Thr Ala Met Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asn Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln

```
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Asp Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Asp Thr Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275


<210>  209
<211>  276
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence

<400>  209

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Met Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30
```

```
Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Met Ala Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Ile Ile Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Ser Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255
```

```
Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 210
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 210

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
        35                  40                  45

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

Gln Ile Cys Lys Thr Asn Thr Gln Thr Tyr Arg Glu Asn Leu Arg Thr
65                  70                  75                  80

Ala Leu Arg Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asn Gln Phe Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Ser Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Thr Tyr Leu
```

```
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 211
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 211

```
Gly Ser His Ser Met Arg Tyr Phe His Thr Ala Met Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Thr Val Gly Tyr Val Asp Asp Thr Leu
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Thr Ser Pro Arg Lys Glu Pro Arg
        35                  40                  45
```

```
Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Arg Glu Thr
    50                  55                  60

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asn Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Ser Gln
    130                 135                 140

Arg Lys Leu Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Asp Lys Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270
```

Arg Trp Glu Pro
275

<210> 212
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 212

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Met Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Met Ala Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Ser Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Trp Arg Ala Tyr Leu
145 150 155 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys

```
                165                 170                 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 213
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 213

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Met Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Thr Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Arg Asn Thr
    50                  55                  60
```

```
Gln Ile Phe Lys Thr Asn Thr Gln Thr Tyr Arg Glu Asn Leu Arg Ile
65                  70                  75                  80

Ala Leu Arg Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Ile Ile Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Ser Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 214
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 214

Cys Ser His Ser Met Lys Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Trp Met Cys Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His

```
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Trp Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Met Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275


<210>  215
<211>  276
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence

<400>  215

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro His Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

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

```
Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Arg Ser His Ile Ile Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Lys Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Trp Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 216
<211> 276
<212> PRT

<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 216

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro His Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Ile Ile Gln
85 90 95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Lys Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
180 185 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe

195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Trp Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 217
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 217

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Trp Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

Gln Lys Tyr Lys Arg Gln Ala Gln Ala Asp Arg Val Asn Leu Arg Lys
65 70 75 80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
85 90 95

```
Arg Met Phe Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asn Gln Phe Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Trp Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Lys Pro
        275
```

<210> 218
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 218

```
Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

Gln Lys Tyr Lys Arg Gln Ala Gln Ala Asp Arg Val Asn Leu Arg Lys
65                  70                  75                  80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
                85                  90                  95

Trp Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Trp Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
```

```
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275


<210>  219
<211>  276
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence

<400>  219

Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110
```

```
Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Leu Glu Ala Ala Arg Ala Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Leu Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Met Gln His Glu Gly Leu Gln Glu Pro Leu Thr Leu
            260                 265                 270

Ser Trp Glu Pro
        275
```

<210> 220
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 220

```
Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
```

1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
85 90 95

Arg Met Ser Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Leu Glu Ala Ala Arg Ala Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Ala Glu Pro Pro Lys Thr His Val Thr His His
180 185 190

Pro Leu Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr

225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
245 250 255

Tyr Thr Cys His Met Gln His Glu Gly Leu Gln Glu Pro Leu Thr Leu
260 265 270

Ser Trp Glu Pro
275

<210> 221
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 221

Cys Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Gln Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr Asn Gln Phe Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

```
Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Thr Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Lys Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Gly Pro
        275
```

<210> 222
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 222

```
Cys Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro His Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
```

```
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Ile Ile Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asp Gln Leu Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
```

245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 223
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 223

Cys Met Thr Trp Asn Gln Met Asn Leu Gly Ala Thr Leu Lys Gly
1 5 10 15

<210> 224
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 224

Trp Asn Gln Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala Ala
1 5 10 15

<210> 225
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 225

Cys Met Thr Trp Asn Tyr Met Asn Leu Gly Ala Thr Leu Lys Gly
1 5 10 15

<210> 226
<211> 15
<212> PRT

<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 226

Trp Asn Tyr Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala Ala
1 5 10 15

<210> 227
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 227

Met Thr Trp Asn Gln Met Asn Leu Gly Ala Thr Leu Lys Gly Val
1 5 10 15

<210> 228
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 228

Thr Trp Asn Gln Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala
1 5 10 15

<210> 229
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 229

Cys Met Thr Trp Asn Leu Met Asn Leu Gly Ala Thr Leu Lys Gly
1 5 10 15

<210> 230
<211> 15
<212> PRT

<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 230

Met Thr Trp Asn Leu Met Asn Leu Gly Ala Thr Leu Lys Gly Val
1 5 10 15

<210> 231
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 231

Thr Trp Asn Leu Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala
1 5 10 15

<210> 232
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 232

Trp Asn Leu Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala Ala
1 5 10 15

<210> 233
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 233

Met Asn Leu Gly Ala Thr Leu Lys
1 5

<210> 234
<211> 15
<212> PRT

<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 234

Met Thr Trp Asn Tyr Met Asn Leu Gly Ala Thr Leu Lys Gly Val
1 5 10 15

<210> 235
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 235

Thr Trp Asn Tyr Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala
1 5 10 15

<210> 236
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 236

Cys Met Thr Trp Asn Gln Met Asn Leu Gly Ala Thr Leu Lys Gly Val
1 5 10 15

Ala

<210> 237
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 237

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

Ala

<210> 238
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 238

Cys Met Thr Trp Asn Tyr Met Asn Leu Gly Ala Thr Leu Lys Gly Val
1 5 10 15

Ala

<210> 239
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 239

Gly Tyr Leu Arg Asn Pro Thr Ala Cys
1 5

<210> 240
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 240

Gly Ala Leu Arg Asn Pro Thr Ala Leu
1 5

<210> 241
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 241

Tyr Ala Leu Arg Asn Pro Thr Ala Cys
1 5

<210> 242
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 242

Gly Leu Leu Arg Asn Pro Thr Ala Cys
1 5

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Arg Tyr Arg Pro His Pro Gly Ala Leu
1 5

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<400> 244

Tyr Gln Arg Pro His Pro Gly Ala Leu
1 5

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Arg Leu Arg Pro His Pro Gly Ala Leu
1 5

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Arg Ile Arg Pro His Pro Gly Ala Leu
1 5

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Gln Phe Pro Asn His Ser Phe Lys His Glu Asp Pro Met Gly Gln
1 5 10 15

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<400> 248

His Ser Phe Lys His Glu Asp Pro Tyr
1 5

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Gln Phe Pro Asn His Ser Phe Lys His Glu Asp Pro Met
1 5 10

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Gln Phe Pro Asn His Ser Phe Lys His Glu Asp Pro Tyr
1 5 10

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Lys Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Asn Lys
1 5 10

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Lys Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Tyr Lys
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Phe Met Cys Ala Tyr Pro Gly Cys Tyr
1 5

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Phe Met Cys Ala Tyr Pro Gly Cys Lys
1 5

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Lys Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Asn Lys Arg Tyr
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Ser Glu Lys Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Asn Lys
1 5 10 15

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<400> 257

Lys Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Tyr Lys Arg Tyr
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Asn Leu Met Asn Leu Gly Ala Thr Leu
1 5

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Val Leu Asp Phe Ala Pro Pro Gly Ala
1 5

<210> 260
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<400> 260

Arg Met Phe Pro Asn Ala Pro Tyr Leu
1 5

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<213> Artificial sequence

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<400> 261

Cys Met Thr Trp Asn Gln Met Asn
1 5

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<400> 262

Cys Tyr Thr Trp Asn Gln Met Asn Leu
1 5

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Asn Tyr Met Asn Leu Gly Ala Thr Leu
1 5

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<400> 264

Tyr Met Phe Pro Asn Ala Pro Tyr Leu
1 5

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<211> 9
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<220>
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<400> 265

Ser Leu Gly Glu Gln Gln Tyr Ser Val
1 5

<210> 266
<211> 9
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<220>
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<400> 266

Cys Met Thr Trp Asn Gln Met Asn Leu
1 5

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<400> 267

Asn Gln Met Asn Leu Gly Ala Thr Leu
1 5

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<400> 268

Cys Met Thr Trp Asn Gln Met Asn
1 5

<210> 269
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Cys Tyr Thr Trp Asn Gln Met Asn Leu
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<400> 270

Asn Tyr Met Asn Leu Gly Ala Thr Leu
1 5

<210> 271
<211> 9
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<400> 271

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 272
<211> 8
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<400> 272

Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 273
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<213> Artificial sequence

<220>
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<400> 273

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 274
<211> 5
<212> PRT
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<220>
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<400> 274

His His His His His
1 5

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<220>
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<400> 275

His His His His His His
1 5

<210> 276
<211> 10
<212> PRT
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<220>
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<400> 276

Glu Gln Lys Leu Ile Ser Glu Glu Asp Leu
1 5 10

<210> 277
<211> 8
<212> PRT
<213> Artificial sequence

<220>
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<400> 277

Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 278
<211> 8
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<220>
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<400> 278

Trp Ser His Pro Gln Phe Glu Lys
1 5

<210> 279
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<213> Artificial sequence

<220>
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<400> 279

Tyr Pro Tyr Asp Val Pro Asp Tyr Ala
1 5

<210> 280
<211> 5
<212> PRT
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<220>
<223> synthetic sequence

<400> 280

Arg Tyr Ile Arg Ser
1 5

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<400> 281

Phe His His Thr
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<213> Artificial sequence

<220>
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<400> 282

Trp Glu Ala Ala Ala Arg Glu Ala Cys Cys Arg Glu Cys Cys Ala Arg
1 5 10 15

Ala

<210> 283
<211> 5
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<213> Artificial sequence

<220>
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<400> 283

Ala Ala Ala Gly Gly
1 5

<210> 284
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<220>
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<400> 285

Cys Met Thr Trp Asn Gln Met Asn
1 5

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<211> 9
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<400> 286

Cys Tyr Thr Trp Asn Gln Met Asn Leu
1 5

<210> 287
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<400> 287

Gly Thr Leu Arg Gly
1 5

<210> 288
<211> 5
<212> PRT
<213> Artificial sequence

<220>
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<400> 288

Tyr Asn Gln Ser Glu
1 5

<210> 289
<211> 5
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<220>
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<400> 289

Thr Ala Ala Asp Met
1 5

<210> 290
<211> 5
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<400> 290

Ala Gln Thr Thr Lys
1 5

<210> 291
<211> 5
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<220>
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<400> 291

Val Glu Thr Arg Pro
1 5

<210> 292
<211> 5
<212> PRT
<213> Artificial sequence

<220>
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<400> 292

Gly Asp Gly Thr Phe
1 5

<210> 293
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 293

Arg Asn Leu Arg Gly
1 5

<210> 294
<211> 5
<212> PRT
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<220>
<223> synthetic sequence

<400> 294

Thr Ala Ala Asp Thr
1 5

<210> 295
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 295

Ala Gln Ile Thr Gln
1 5

<210> 296
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 296

Gly Asp Arg Thr Phe
1 5

<210> 297
<211> 276
<212> PRT
<213> Homo sapiens

<400> 297

Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
50 55 60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65 70 75 80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
130 135 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

```
Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
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<210> 298
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 298

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Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
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65 70 75 80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
130 135 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
180 185 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 299

<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 299

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Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Cys Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190
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```
Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275


<210>  300
<211>  275
<212>  PRT
<213>  Homo sapiens

<400>  300

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
    50                  55                  60

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
                85                  90                  95
```

```
Ile Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Ala Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
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<210> 301
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 301

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Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
    50                  55                  60

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

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

Ile Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Ala Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220
```

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu
275

<210> 302
<211> 341
<212> PRT
<213> Homo sapiens

<400> 302

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
50 55 60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65 70 75 80

Ala Leu Arg Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

```
Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro Ser Ser Gln Pro Thr Val Pro Ile Val Gly Ile Ile
        275                 280                 285

Ala Gly Leu Val Leu Leu Gly Ala Val Ile Thr Gly Ala Val Val Ala
    290                 295                 300

Ala Val Met Trp Arg Arg Asn Ser Ser Asp Arg Lys Gly Gly Ser Tyr
305                 310                 315                 320

Ser Gln Ala Ala Ser Ser Asp Ser Ala Gln Gly Ser Asp Val Ser Leu
                325                 330                 335

Thr Ala Cys Lys Val
            340
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<210> 303
<211> 341
<212> PRT
<213> Homo sapiens

<400> 303

Gly Ser His Ser Met Arg Tyr Phe Thr Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Ile Gln
85 90 95

Met Met Tyr Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr Gln Gln Asp Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
180 185 190

```
Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ser Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro Ser Ser Gln Pro Thr Ile Pro Ile Val Gly Ile Ile
        275                 280                 285

Ala Gly Leu Val Leu Phe Gly Ala Val Phe Ala Gly Ala Val Val Ala
    290                 295                 300

Ala Val Arg Trp Arg Arg Lys Ser Ser Asp Arg Lys Gly Gly Ser Tyr
305                 310                 315                 320

Ser Gln Ala Ala Ser Ser Asp Ser Ala Gln Gly Ser Asp Met Ser Leu
                325                 330                 335

Thr Ala Cys Lys Val
            340
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<210> 304
<211> 276
<212> PRT
<213> Homo sapiens

<400> 304

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Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
```

```
        35                  40                  45

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

Gln Ile Tyr Lys Ala Gln Ala Gln Thr Asp Arg Glu Ser Leu Arg Asn
65                  70                  75                  80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Asp Lys Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
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260 265 270

Arg Trp Glu Pro
275

<210> 305
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 305

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
35 40 45

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

Gln Ile Tyr Lys Ala Gln Ala Gln Thr Asp Arg Glu Ser Leu Arg Asn
65 70 75 80

Leu Arg Gly Ala Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145 150 155 160

```
Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Asp Lys Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 306
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 306

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Arg Asn Thr
```

```
    50                  55                  60

Gln Ile Tyr Lys Ala Gln Ala Gln Thr Asp Arg Glu Ser Leu Arg Asn
65                  70                  75                  80

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Cys Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Asp Lys Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
```

275

<210> 307
<211> 276
<212> PRT
<213> Homo sapiens

<400> 307

Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
85 90 95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Leu Glu Ala Ala Arg Ala Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Ala Glu Pro Pro Lys Thr His Val Thr His His
180 185 190

```
Pro Leu Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Met Gln His Glu Gly Leu Gln Glu Pro Leu Thr Leu
            260                 265                 270

Ser Trp Glu Pro
        275
```

<210> 308
<211> 276
<212> PRT
<213> Homo sapiens

<400> 308

```
Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Ala Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
                85                  90                  95
```

```
Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Leu Glu Ala Ala Arg Ala Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Leu Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Met Gln His Glu Gly Leu Gln Glu Pro Leu Thr Leu
            260                 265                 270

Ser Trp Glu Pro
        275
```

<210> 309
<211> 246
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> MISC_FEATURE
<222> (78)..(79)
<223> Amino acid cluster 1 is present between the residues at positions
78 and 79.

<220>
<221> MISC_FEATURE
<222> (79)..(79)
<223> The cysteine residue forms a disulfide bond between the alpha1
and alpha2-1 helices.

<220>
<221> MISC_FEATURE
<222> (79)..(80)
<223> Amino acid cluster 2 is present between the residues at positions
79 and 80.

<220>
<221> MISC_FEATURE
<222> (123)..(124)
<223> Amino acid cluster 3 is present between the residues at positions
123 and 124.

<220>
<221> MISC_FEATURE
<222> (124)..(124)
<223> The cysteine residue at position 124 forms a disulfide bond
between the alpha1 and alpha2-1 helices

<220>
<221> MISC_FEATURE
<222> (124)..(125)
<223> Amino acid cluster 4 is present between the residues at positions
124 and 125.

<220>
<221> MISC_FEATURE
<222> (210)..(211)
<223> Amino acid cluster 5 is present between the residues at positions
210 and 211.

<220>
<221> MISC_FEATURE
<222> (211)..(211)
<223> The cysteine residue forms a disulfide bond with the beta2M
polypeptide cysteine at position 12.

<220>
<221> MISC_FEATURE
<222> (211)..(212)
<223> Amino acid cluster 6 is present between the residues at positions
211 and 212.

<220>
<221> MISC_FEATURE
<222> (212)..(213)
<223> Amino acid cluster 6 is present between the residues at positions
211 and 212.

<400> 309

Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
50 55 60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Cys Ala
65 70 75 80

Gly Ser His Thr Val Gln Arg Met Tyr Gly Cys Asp Val Gly Ser Asp
85 90 95

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

Tyr Ile Ala Leu Lys Glu Asp Leu Arg Ser Trp Cys His Lys Trp Glu
115 120 125

Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu Glu Gly Thr Cys
130 135 140

Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys Glu Thr Leu Gln
145 150 155 160

```
Arg Thr Asp Ala Pro Lys Thr His Met Thr His His Ala Val Ser Asp
                165                 170                 175

His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe Tyr Pro Ala Glu
            180                 185                 190

Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln Thr Gln Asp Thr
        195                 200                 205

Glu Leu Cys Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu
    210                 215                 220

Gln Arg Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu
225                 230                 235                 240

Thr Leu Arg Trp Glu Pro
                245
```

<210> 310
<211> 99
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 310

```
Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu
1               5                   10                  15

Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
            20                  25                  30

Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
        35                  40                  45

Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu
    50                  55                  60

Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
65                  70                  75                  80

Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp
                85                  90                  95
```

Arg Asp Met

<210> 311
<211> 99
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 311

Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Cys His Pro Ala Glu
1 5 10 15

Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
20 25 30

Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
35 40 45

Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu
50 55 60

Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
65 70 75 80

Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp
85 90 95

Arg Asp Met

<210> 312
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 312

Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

```
Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240
```

```
Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 313
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 313

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125
```

```
Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 314
<211> 99
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 314

```
Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Cys His Pro Ala Glu
1               5                   10                  15

Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
            20                  25                  30
```

Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
35 40 45

Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu
50 55 60

Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
65 70 75 80

Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp
85 90 95

Arg Asp Met

<210> 315
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> MISC_FEATURE
<222> (6)..(10)
<223> The amino acids from positions 6 to 10 may be repeated 1, 2, 3,
4, 5, 6, 7, 8, or 9 times

<400> 315

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10

<210> 316
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 316

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 317
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 317

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 318
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 318

Gly Cys Gly Gly Ser
1 5

<210> 319
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> MISC_FEATURE
<222> (6)..(10)
<223> The amino acids at positions 6 to 10 may be repeated 1 to 10 times

<400> 319

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10

<210> 320

<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 320

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 321
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 321

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 322
<211> 25
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 322

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25

<210> 323
<211> 30
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 323

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25 30

<210> 324
<211> 35
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 324

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser
35

<210> 325
<211> 40
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 325

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser Gly Gly Gly Gly Ser
35 40

<210> 326

<211> 45
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 326

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
35 40 45

<210> 327
<211> 50
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 327

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
35 40 45

Gly Ser
50

<210> 328
<211> 55
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 328

```
Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1               5                   10                  15


Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
            20                  25                  30


Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
        35                  40                  45


Gly Ser Gly Gly Gly Gly Ser
    50                  55
```

<210> 329
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 329

```
Cys Gly Gly Gly Ser
1               5
```

<210> 330
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> MISC_FEATURE
<222> (6)..(10)
<223> The amino acids at positions 6 to 10 can be repeated 1 to 10 times

<400> 330

```
Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser
1               5                   10
```

<210> 331
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 331

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser
1   5   10

<210> 332
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 332

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1   5   10   15

<210> 333
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 333

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser
            20

<210> 334
<211> 25
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 334

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25

<210> 335
<211> 30
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 335

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25 30

<210> 336
<211> 35
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 336

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser
35

<210> 337
<211> 40
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 337

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
            20   25   30

Gly Gly Ser Gly Gly Gly Gly Ser
        35   40

<210> 338
<211> 45
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 338

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
            20   25   30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        35   40   45

<210> 339
<211> 50
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 339

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
            20   25   30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
        35   40   45

Gly Ser
    50

<210> 340
<211> 55
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 340

Cys Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
35 40 45

Gly Ser Gly Gly Gly Gly Ser
50 55

<210> 341
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 341

Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
50 55 60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65 70 75 80

```
Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Val Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 342
<211> 10

<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> MISC_FEATURE
<222> (6)..(10)
<223> The residues from positions 6 to 10 may be repeated 1 to 10 times

<400> 342

Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10

<210> 343
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 343

Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Lys Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
50 55 60

Arg Asn Met Lys Ala His Ser Gln Thr Asp Arg Ala Asn Leu Gly Thr
65 70 75 80

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
85 90 95

Ile Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
100 105 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Val His Ala Ala Glu Gln Arg Arg Val Tyr Leu
145                 150                 155                 160

Glu Gly Arg Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 344
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 344

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
```

1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gln Glu Thr
50 55 60

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
85 90 95

Ile Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
100 105 110

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

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
130 135 140

Arg Lys Trp Glu Ala Ala His Ala Ala Glu Gln Gln Arg Ala Tyr Leu
145 150 155 160

Glu Gly Arg Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
180 185 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr

225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu
275

<210> 345
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 345

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
50 55 60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65 70 75 80

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

```
Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 346
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 346

```
Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
```

```
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
    50                  55                  60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65                  70                  75                  80

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
```

245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu
275

<210> 347
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 347

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
50 55 60

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

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
130 135 140

```
Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 348
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 348

```
Gly Ser His Ser Met Arg Tyr Phe Thr Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
```

```
        35                  40                  45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Ile Gln
                85                  90                  95

Met Met Tyr Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr Gln Gln Asp Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ser Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
```

260 265 270

Arg Trp Glu
275

<210> 349
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 349

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Ile Gln
85 90 95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr Gln Gln Asp Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Thr Ala His Glu Ala Glu Gln Trp Arg Ala Tyr Leu
145 150 155 160

```
Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ser Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 350
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 350

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Arg Asn Thr
```

```
    50                  55                  60

Gln Ile Tyr Lys Ala Gln Ala Gln Thr Asp Arg Glu Ser Leu Arg Asn
65                  70                  75                  80

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Asp Lys Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
```

275

<210> 351
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 351

Gly Ser His Ser Met Arg Tyr Phe Asp Thr Ala Met Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Ser Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asn Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Asp Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

```
Asp Thr Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 352
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 352

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Met Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Met Ala Pro Arg
        35                  40                  45

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

Gln Ile Ser Lys Thr Asn Thr Gln Thr Tyr Arg Glu Ser Leu Arg Asn
```

65 70 75 80

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Ile Ile Gln
85 90 95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Ser Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
180 185 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Arg Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu
275

<210> 353

<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 353

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Glu Glu Pro Arg
35 40 45

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

Gln Ile Cys Lys Thr Asn Thr Gln Thr Tyr Arg Glu Asn Leu Arg Thr
65 70 75 80

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asn Gln Phe Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Ser Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Thr Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
180 185 190

```
Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 354
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 354

```
Gly Ser His Ser Met Arg Tyr Phe His Thr Ala Met Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Thr Val Gly Tyr Val Asp Asp Thr Leu
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Thr Ser Pro Arg Lys Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
```

85 90 95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asn Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Ser Gln
130 135 140

Arg Lys Leu Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Glu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Asp Lys Leu Glu Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
180 185 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Arg Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu
275

<210> 355
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 355

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Met Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Met Ala Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

His Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Ser Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Trp Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205
```

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Arg Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu
275

<210> 356
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 356

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Met Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Thr Glu Pro Arg
35 40 45

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

Gln Ile Phe Lys Thr Asn Thr Gln Thr Tyr Arg Glu Asn Leu Arg Ile
65 70 75 80

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Ile Ile Gln
85 90 95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly

```
            100                 105                 110

His Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Ser Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Asp Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Arg Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 357
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 357

```
Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Leu Glu Ala Ala Arg Ala Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Leu Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220
```

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
245 250 255

Tyr Thr Cys His Met Gln His Glu Gly Leu Gln Glu Pro Leu Thr Leu
260 265 270

Ser Trp Glu Pro
275

<210> 358
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 358

Cys Ser His Ser Met Lys Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Trp Met Cys Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu

```
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Trp Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Met Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275


<210>  359
<211>  276
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence

<400>  359

Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Val Ser Arg Pro Gly
1               5                   10                  15
```

```
Arg Gly Glu Pro His Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Arg Ser His Ile Ile Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Lys Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Trp Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240
```

```
Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 360
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 360

```
Gly Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro His Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Ile Ile Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Val Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
```

```
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Leu Cys Val Glu Trp Leu Arg Arg Tyr Leu Lys Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Trp Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275


<210>  361
<211>  276
<212>  PRT
<213>  Artificial sequence

<220>
<223>  synthetic sequence

<400>  361

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Trp Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30
```

```
Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

Gln Lys Tyr Lys Arg Gln Ala Gln Ala Asp Arg Val Asn Leu Arg Lys
65                  70                  75                  80

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Phe Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asn Gln Phe Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Arg Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Trp Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255
```

```
Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Lys Pro
        275
```

<210> 362
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 362

```
Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

Gln Lys Tyr Lys Arg Gln Ala Gln Ala Asp Arg Val Asn Leu Arg Lys
65                  70                  75                  80

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
                85                  90                  95

Trp Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Trp Arg Ala Tyr Leu
```

145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
180 185 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
260 265 270

Arg Trp Glu Pro
275

<210> 363
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 363

Cys Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Gln Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asn Gln Phe Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Trp Glu Ala Ala Arg Thr Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Lys Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270
```

Arg Trp Gly Pro
275

<210> 364
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 364

Cys Ser His Ser Met Arg Tyr Phe Tyr Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro His Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Ile Ile Gln
85 90 95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

His Asp Gln Leu Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Trp Glu Ala Ala Arg Glu Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys

```
                165                 170                 175

Glu Thr Leu Gln Arg Ala Glu His Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Glu Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Pro
        275
```

<210> 365
<211> 223
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 365

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

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

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

Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
    50                  55                  60
```

```
Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val
65                  70                  75                  80

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

Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr
            100                 105                 110

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

Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
    130                 135                 140

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

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

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

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

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

<210> 366
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> MISC_FEATURE
<222> (1)..(2)
<223> The amino acids from positions 1 to 2 may be repeated at least
once

<220>
<221> MISC_FEATURE
<222> (3)..(7)
<223> The amino acids at positions 3 to 7 may be repeated at least once

<400> 366

Gly Ser Gly Ser Gly Gly Ser
1 5

<210> 367
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> MISC_FEATURE
<222> (1)..(4)
<223> The amino acids at positions 1 to 4 may be repeated at least once

<400> 367

Gly Gly Gly Ser
1

<210> 368
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 368

Gly Gly Ser Gly
1

<210> 369
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 369

Gly Gly Ser Gly Gly
1 5

<210> 370
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 370

Gly Ser Gly Ser Gly
1 5

<210> 371
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 371

Gly Ser Gly Gly Gly
1 5

<210> 372
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 372

Gly Gly Gly Ser Gly
1 5

<210> 373
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 373

Gly Ser Ser Ser Gly
1 5

<210> 374
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 374

Gly Ser Ser Ser Ser
1 5

<210> 375
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 375

Gly Ser Ser Ser Ser Gly Ser Ser Ser Ser Gly Ser Ser Ser Ser Gly
1 5 10 15

Ser Ser Ser Ser
20

<210> 376
<211> 25
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 376

Gly Ser Ser Ser Ser Gly Ser Ser Ser Ser Gly Ser Ser Ser Ser Gly
1 5 10 15

Ser Ser Ser Ser Gly Ser Ser Ser Ser
20 25

<210> 377
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 377

Gly Gly Gly Gly Ser
1 5

<210> 378
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 378

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10

<210> 379
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 379

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 380
<211> 20
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 380

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
            20

<210> 381
<211> 25
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 381

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser Gly Gly Gly Gly Ser
            20   25

<210> 382
<211> 30
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 382

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
            20   25   30

<210> 383
<211> 35
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 383

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
            20   25   30

Gly Gly Ser
        35

<210> 384
<211> 40
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 384

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
            20   25   30

Gly Gly Ser Gly Gly Gly Gly Ser
        35   40

<210> 385
<211> 45
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 385

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1   5   10   15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
            20   25   30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        35   40   45

<210> 386
<211> 50
<212> PRT
<213> Artificial sequence

<220>

<223> synthetic sequence

<400> 386

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
20 25 30

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
35 40 45

Gly Ser
50

<210> 387
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 387

Ala Ala Ala Gly Gly
1 5

<210> 388
<211> 8
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 388

Leu Glu Val Leu Phe Gln Gly Pro
1 5

<210> 389
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 389

Glu Asn Leu Tyr Thr Gln Ser
1 5

<210> 390
<211> 5
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 390

Asp Asp Asp Asp Lys
1 5

<210> 391
<211> 4
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 391

Leu Val Pro Arg
1

<210> 392
<211> 22
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 392

Gly Ser Gly Ala Thr Asn Phe Ser Leu Leu Lys Gln Ala Gly Asp Val
1 5 10 15

Glu Glu Asn Pro Gly Pro
20

<210> 393
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<220>
<221> MISC_FEATURE
<222> (6)..(10)
<223> The amino acids from positions 6 to 10 may be repeated 1, 2,
or 3
       times.

<400> 393

Gly Cys Gly Gly Gly Gly Gly Gly Ser
1   5

<210> 394
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 394

Cys His Tyr Ser Glu Leu
1   5

<210> 395
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 395

Gly Ile Leu Gly Phe Val Phe Thr Leu
1   5

<210> 396
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 396

```
His Pro Val Gly Glu Ala Asp Tyr Phe
1               5
```

<210> 397
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 397

```
Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
        35                  40                  45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
                85                  90                  95

Arg Met Tyr Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
            100                 105                 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Cys Ala Gln Ile Thr Gln
    130                 135                 140

Arg Lys Leu Glu Ala Ala Arg Ala Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175
```

```
Glu Thr Leu Gln Arg Ala Glu Pro Pro Lys Thr His Val Thr His His
            180                 185                 190

Pro Leu Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Met Gln His Glu Gly Leu Gln Glu Pro Leu Thr Leu
            260                 265                 270

Ser Trp Glu Pro
        275
```

<210> 398
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 398

```
Gly Cys Gly Gly Ser Gly Gly Gly Gly Ser
1               5                   10
```

<210> 399
<211> 502
<212> PRT
<213> Homo sapiens

<400> 399

```
Met Asp Phe Leu Leu Leu Gln Asp Pro Ala Ser Thr Cys Val Pro Glu
1               5                   10                  15

Pro Ala Ser Gln His Thr Leu Arg Ser Gly Pro Gly Cys Leu Gln Gln
```

```
            20                  25                  30

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

Gly Ala Ala Glu Ala Ser Ala Glu Arg Leu Gln Gly Arg Arg Ser Arg
    50                  55                  60

Gly Ala Ser Gly Ser Glu Pro Gln Gln Met Gly Ser Asp Val Arg Asp
65                  70                  75                  80

Leu Asn Ala Leu Leu Pro Ala Val Pro Ser Leu Gly Gly Gly Gly Gly
                85                  90                  95

Cys Ala Leu Pro Val Ser Gly Ala Ala Gln Trp Ala Pro Val Leu Asp
            100                 105                 110

Phe Ala Pro Pro Gly Ala Ser Ala Tyr Gly Ser Leu Gly Gly Pro Ala
        115                 120                 125

Pro Pro Pro Ala Pro Pro Pro Pro Pro Pro Pro Pro Pro His Ser Phe
    130                 135                 140

Ile Lys Gln Glu Pro Ser Trp Gly Gly Ala Glu Pro His Glu Glu Gln
145                 150                 155                 160

Cys Leu Ser Ala Phe Thr Val His Phe Ser Gly Gln Phe Thr Gly Thr
                165                 170                 175

Ala Gly Ala Cys Arg Tyr Gly Pro Phe Gly Pro Pro Pro Pro Ser Gln
            180                 185                 190

Ala Ser Ser Gly Gln Ala Arg Met Phe Pro Asn Ala Pro Tyr Leu Pro
        195                 200                 205

Ser Cys Leu Glu Ser Gln Pro Ala Ile Arg Asn Gln Gly Tyr Ser Thr
    210                 215                 220

Val Thr Phe Asp Gly Thr Pro Ser Tyr Gly His Thr Pro Ser His His
225                 230                 235                 240

Ala Ala Gln Phe Pro Asn His Ser Phe Lys His Glu Asp Pro Met Gly
```

```
                245                 250                 255

Gln Gln Gly Ser Leu Gly Glu Gln Gln Tyr Ser Val Pro Pro Pro Val
            260                 265                 270

Tyr Gly Cys His Thr Pro Thr Asp Ser Cys Thr Gly Ser Gln Ala Leu
        275                 280                 285

Leu Leu Arg Thr Pro Tyr Ser Ser Asp Asn Leu Tyr Gln Met Thr Ser
    290                 295                 300

Gln Leu Glu Cys Met Thr Trp Asn Gln Met Asn Leu Gly Ala Thr Leu
305                 310                 315                 320

Lys Gly His Ser Thr Gly Tyr Glu Ser Asp Asn His Thr Thr Pro Ile
                325                 330                 335

Leu Cys Gly Ala Gln Tyr Arg Ile His Thr His Gly Val Phe Arg Gly
            340                 345                 350

Ile Gln Asp Val Arg Arg Val Pro Gly Val Ala Pro Thr Leu Val Arg
        355                 360                 365

Ser Ala Ser Glu Thr Ser Glu Lys Arg Pro Phe Met Cys Ala Tyr Pro
    370                 375                 380

Gly Cys Asn Lys Arg Tyr Phe Lys Leu Ser His Leu Gln Met His Ser
385                 390                 395                 400

Arg Lys His Thr Gly Glu Lys Pro Tyr Gln Cys Asp Phe Lys Asp Cys
                405                 410                 415

Glu Arg Arg Phe Ser Arg Ser Asp Gln Leu Lys Arg His Gln Arg Arg
            420                 425                 430

His Thr Gly Val Lys Pro Phe Gln Cys Lys Thr Cys Gln Arg Lys Phe
        435                 440                 445

Ser Arg Ser Asp His Leu Lys Thr His Thr Arg Thr His Thr Gly Glu
    450                 455                 460

Lys Pro Phe Ser Cys Arg Trp Pro Ser Cys Gln Lys Lys Phe Ala Arg
```

465 470 475 480

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

Lys Leu Gln Leu Ala Leu
500

<210> 400
<211> 519
<212> PRT
<213> Homo sapiens

<400> 400

Met Asp Phe Leu Leu Leu Gln Asp Pro Ala Ser Thr Cys Val Pro Glu
1 5 10 15

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

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

Gly Ala Ala Glu Ala Ser Ala Glu Arg Leu Gln Gly Arg Arg Ser Arg
50 55 60

Gly Ala Ser Gly Ser Glu Pro Gln Gln Met Gly Ser Asp Val Arg Asp
65 70 75 80

Leu Asn Ala Leu Leu Pro Ala Val Pro Ser Leu Gly Gly Gly Gly Gly
85 90 95

Cys Ala Leu Pro Val Ser Gly Ala Ala Gln Trp Ala Pro Val Leu Asp
100 105 110

Phe Ala Pro Pro Gly Ala Ser Ala Tyr Gly Ser Leu Gly Gly Pro Ala
115 120 125

Pro Pro Pro Ala Pro Pro Pro Pro Pro Pro Pro Pro Pro His Ser Phe
130 135 140

Ile Lys Gln Glu Pro Ser Trp Gly Gly Ala Glu Pro His Glu Glu Gln
145 150 155 160

```
Cys Leu Ser Ala Phe Thr Val His Phe Ser Gly Gln Phe Thr Gly Thr
                165                 170                 175

Ala Gly Ala Cys Arg Tyr Gly Pro Phe Gly Pro Pro Pro Pro Ser Gln
            180                 185                 190

Ala Ser Ser Gly Gln Ala Arg Met Phe Pro Asn Ala Pro Tyr Leu Pro
        195                 200                 205

Ser Cys Leu Glu Ser Gln Pro Ala Ile Arg Asn Gln Gly Tyr Ser Thr
    210                 215                 220

Val Thr Phe Asp Gly Thr Pro Ser Tyr Gly His Thr Pro Ser His His
225                 230                 235                 240

Ala Ala Gln Phe Pro Asn His Ser Phe Lys His Glu Asp Pro Met Gly
                245                 250                 255

Gln Gln Gly Ser Leu Gly Glu Gln Gln Tyr Ser Val Pro Pro Pro Val
            260                 265                 270

Tyr Gly Cys His Thr Pro Thr Asp Ser Cys Thr Gly Ser Gln Ala Leu
        275                 280                 285

Leu Leu Arg Thr Pro Tyr Ser Ser Asp Asn Leu Tyr Gln Met Thr Ser
    290                 295                 300

Gln Leu Glu Cys Met Thr Trp Asn Gln Met Asn Leu Gly Ala Thr Leu
305                 310                 315                 320

Lys Gly Val Ala Ala Gly Ser Ser Ser Ser Val Lys Trp Thr Glu Gly
                325                 330                 335

Gln Ser Asn His Ser Thr Gly Tyr Glu Ser Asp Asn His Thr Thr Pro
            340                 345                 350

Ile Leu Cys Gly Ala Gln Tyr Arg Ile His Thr His Gly Val Phe Arg
        355                 360                 365

Gly Ile Gln Asp Val Arg Arg Val Pro Gly Val Ala Pro Thr Leu Val
    370                 375                 380
```

```
Arg Ser Ala Ser Glu Thr Ser Glu Lys Arg Pro Phe Met Cys Ala Tyr
385                 390                 395                 400

Pro Gly Cys Asn Lys Arg Tyr Phe Lys Leu Ser His Leu Gln Met His
                405                 410                 415

Ser Arg Lys His Thr Gly Glu Lys Pro Tyr Gln Cys Asp Phe Lys Asp
            420                 425                 430

Cys Glu Arg Arg Phe Ser Arg Ser Asp Gln Leu Lys Arg His Gln Arg
        435                 440                 445

Arg His Thr Gly Val Lys Pro Phe Gln Cys Lys Thr Cys Gln Arg Lys
    450                 455                 460

Phe Ser Arg Ser Asp His Leu Lys Thr His Thr Arg Thr His Thr Gly
465                 470                 475                 480

Glu Lys Pro Phe Ser Cys Arg Trp Pro Ser Cys Gln Lys Lys Phe Ala
                485                 490                 495

Arg Ser Asp Glu Leu Val Arg His His Asn Met His Gln Arg Asn Met
            500                 505                 510

Thr Lys Leu Gln Leu Ala Leu
        515
```

<210> 401
<211> 522
<212> PRT
<213> Homo sapiens

<400> 401

```
Met Asp Phe Leu Leu Leu Gln Asp Pro Ala Ser Thr Cys Val Pro Glu
1               5                   10                  15

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

Pro Glu Gln Gln Gly Val Arg Asp Pro Gly Gly Ile Trp Ala Lys Leu
        35                  40                  45
```

```
Gly Ala Ala Glu Ala Ser Ala Glu Arg Leu Gln Gly Arg Arg Ser Arg
    50                  55                  60

Gly Ala Ser Gly Ser Glu Pro Gln Gln Met Gly Ser Asp Val Arg Asp
65                  70                  75                  80

Leu Asn Ala Leu Leu Pro Ala Val Pro Ser Leu Gly Gly Gly Gly Gly
                85                  90                  95

Cys Ala Leu Pro Val Ser Gly Ala Ala Gln Trp Ala Pro Val Leu Asp
            100                 105                 110

Phe Ala Pro Pro Gly Ala Ser Ala Tyr Gly Ser Leu Gly Gly Pro Ala
        115                 120                 125

Pro Pro Pro Ala Pro Pro Pro Pro Pro Pro Pro Pro Pro His Ser Phe
    130                 135                 140

Ile Lys Gln Glu Pro Ser Trp Gly Gly Ala Glu Pro His Glu Glu Gln
145                 150                 155                 160

Cys Leu Ser Ala Phe Thr Val His Phe Ser Gly Gln Phe Thr Gly Thr
                165                 170                 175

Ala Gly Ala Cys Arg Tyr Gly Pro Phe Gly Pro Pro Pro Pro Ser Gln
            180                 185                 190

Ala Ser Ser Gly Gln Ala Arg Met Phe Pro Asn Ala Pro Tyr Leu Pro
        195                 200                 205

Ser Cys Leu Glu Ser Gln Pro Ala Ile Arg Asn Gln Gly Tyr Ser Thr
    210                 215                 220

Val Thr Phe Asp Gly Thr Pro Ser Tyr Gly His Thr Pro Ser His His
225                 230                 235                 240

Ala Ala Gln Phe Pro Asn His Ser Phe Lys His Glu Asp Pro Met Gly
                245                 250                 255

Gln Gln Gly Ser Leu Gly Glu Gln Gln Tyr Ser Val Pro Pro Pro Val
            260                 265                 270
```

```
Tyr Gly Cys His Thr Pro Thr Asp Ser Cys Thr Gly Ser Gln Ala Leu
        275                 280                 285

Leu Leu Arg Thr Pro Tyr Ser Ser Asp Asn Leu Tyr Gln Met Thr Ser
    290                 295                 300

Gln Leu Glu Cys Met Thr Trp Asn Gln Met Asn Leu Gly Ala Thr Leu
305                 310                 315                 320

Lys Gly Val Ala Ala Gly Ser Ser Ser Ser Val Lys Trp Thr Glu Gly
                325                 330                 335

Gln Ser Asn His Ser Thr Gly Tyr Glu Ser Asp Asn His Thr Thr Pro
            340                 345                 350

Ile Leu Cys Gly Ala Gln Tyr Arg Ile His Thr His Gly Val Phe Arg
        355                 360                 365

Gly Ile Gln Asp Val Arg Arg Val Pro Gly Val Ala Pro Thr Leu Val
    370                 375                 380

Arg Ser Ala Ser Glu Thr Ser Glu Lys Arg Pro Phe Met Cys Ala Tyr
385                 390                 395                 400

Pro Gly Cys Asn Lys Arg Tyr Phe Lys Leu Ser His Leu Gln Met His
                405                 410                 415

Ser Arg Lys His Thr Gly Glu Lys Pro Tyr Gln Cys Asp Phe Lys Asp
            420                 425                 430

Cys Glu Arg Arg Phe Ser Arg Ser Asp Gln Leu Lys Arg His Gln Arg
        435                 440                 445

Arg His Thr Gly Val Lys Pro Phe Gln Cys Lys Thr Cys Gln Arg Lys
    450                 455                 460

Phe Ser Arg Ser Asp His Leu Lys Thr His Thr Arg Thr His Thr Gly
465                 470                 475                 480

Lys Thr Ser Glu Lys Pro Phe Ser Cys Arg Trp Pro Ser Cys Gln Lys
                485                 490                 495
```

```
Lys Phe Ala Arg Ser Asp Glu Leu Val Arg His His Asn Met His Gln
            500                 505                 510

Arg Asn Met Thr Lys Leu Gln Leu Ala Leu
        515                 520
```

<210> 402
<211> 302
<212> PRT
<213> Homo sapiens

<400> 402

```
Met Glu Lys Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr
1               5                   10                  15

Gly His Thr Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser Phe
            20                  25                  30

Lys His Glu Asp Pro Met Gly Gln Gln Gly Ser Leu Gly Glu Gln Gln
        35                  40                  45

Tyr Ser Val Pro Pro Pro Val Tyr Gly Cys His Thr Pro Thr Asp Ser
    50                  55                  60

Cys Thr Gly Ser Gln Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser Asp
65                  70                  75                  80

Asn Leu Tyr Gln Met Thr Ser Gln Leu Glu Cys Met Thr Trp Asn Gln
                85                  90                  95

Met Asn Leu Gly Ala Thr Leu Lys Gly Val Ala Ala Gly Ser Ser Ser
            100                 105                 110

Ser Val Lys Trp Thr Glu Gly Gln Ser Asn His Ser Thr Gly Tyr Glu
        115                 120                 125

Ser Asp Asn His Thr Thr Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile
    130                 135                 140

His Thr His Gly Val Phe Arg Gly Ile Gln Asp Val Arg Arg Val Pro
145                 150                 155                 160
```

```
Gly Val Ala Pro Thr Leu Val Arg Ser Ala Ser Glu Thr Ser Glu Lys
                165                 170                 175

Arg Pro Phe Met Cys Ala Tyr Pro Gly Cys Asn Lys Arg Tyr Phe Lys
            180                 185                 190

Leu Ser His Leu Gln Met His Ser Arg Lys His Thr Gly Glu Lys Pro
        195                 200                 205

Tyr Gln Cys Asp Phe Lys Asp Cys Glu Arg Arg Phe Ser Arg Ser Asp
    210                 215                 220

Gln Leu Lys Arg His Gln Arg Arg His Thr Gly Val Lys Pro Phe Gln
225                 230                 235                 240

Cys Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr
                245                 250                 255

His Thr Arg Thr His Thr Gly Glu Lys Pro Phe Ser Cys Arg Trp Pro
            260                 265                 270

Ser Cys Gln Lys Lys Phe Ala Arg Ser Asp Glu Leu Val Arg His His
        275                 280                 285

Asn Met His Gln Arg Asn Met Thr Lys Leu Gln Leu Ala Leu
    290                 295                 300
```

<210> 403
<211> 288
<212> PRT
<213> Homo sapiens

<400> 403

```
Met Glu Lys Gly Tyr Ser Thr Val Thr Phe Asp Gly Thr Pro Ser Tyr
1               5                   10                  15

Gly His Thr Pro Ser His His Ala Ala Gln Phe Pro Asn His Ser Phe
            20                  25                  30

Lys His Glu Asp Pro Met Gly Gln Gln Gly Ser Leu Gly Glu Gln Gln
        35                  40                  45

Tyr Ser Val Pro Pro Pro Val Tyr Gly Cys His Thr Pro Thr Asp Ser
```

```
    50                  55                  60

Cys Thr Gly Ser Gln Ala Leu Leu Leu Arg Thr Pro Tyr Ser Ser Asp
65                  70                  75                  80

Asn Leu Tyr Gln Met Thr Ser Gln Leu Glu Cys Met Thr Trp Asn Gln
                85                  90                  95

Met Asn Leu Gly Ala Thr Leu Lys Gly His Ser Thr Gly Tyr Glu Ser
            100                 105                 110

Asp Asn His Thr Thr Pro Ile Leu Cys Gly Ala Gln Tyr Arg Ile His
        115                 120                 125

Thr His Gly Val Phe Arg Gly Ile Gln Asp Val Arg Arg Val Pro Gly
    130                 135                 140

Val Ala Pro Thr Leu Val Arg Ser Ala Ser Glu Thr Ser Glu Lys Arg
145                 150                 155                 160

Pro Phe Met Cys Ala Tyr Pro Gly Cys Asn Lys Arg Tyr Phe Lys Leu
                165                 170                 175

Ser His Leu Gln Met His Ser Arg Lys His Thr Gly Glu Lys Pro Tyr
            180                 185                 190

Gln Cys Asp Phe Lys Asp Cys Glu Arg Arg Phe Ser Arg Ser Asp Gln
        195                 200                 205

Leu Lys Arg His Gln Arg Arg His Thr Gly Val Lys Pro Phe Gln Cys
    210                 215                 220

Lys Thr Cys Gln Arg Lys Phe Ser Arg Ser Asp His Leu Lys Thr His
225                 230                 235                 240

Thr Arg Thr His Thr Gly Lys Thr Ser Glu Lys Pro Phe Ser Cys Arg
                245                 250                 255

Trp Pro Ser Cys Gln Lys Lys Phe Ala Arg Ser Asp Glu Leu Val Arg
            260                 265                 270

His His Asn Met His Gln Arg Asn Met Thr Lys Leu Gln Leu Ala Leu
```

275 280 285

<210> 404
<211> 276
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 404

Cys Ser His Ser Met Arg Tyr Phe Asp Thr Ala Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ser Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Pro Arg Gly Glu Pro Arg
35 40 45

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

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

Leu Arg Gly Cys Tyr Asn Gln Ser Glu Asp Gly Ser His Thr Leu Gln
85 90 95

Arg Met Ser Gly Cys Asp Leu Gly Pro Asp Gly Arg Leu Leu Arg Gly
100 105 110

Tyr Asp Gln Ser Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Asn Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Thr Ala Ala Gln Ile Thr Gln
130 135 140

Arg Lys Leu Glu Ala Ala Arg Ala Ala Glu Gln Leu Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Ala Glu Pro Pro Lys Thr His Val Thr His His
180 185 190

Pro Leu Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
245 250 255

Tyr Thr Cys His Met Gln His Glu Gly Leu Gln Glu Pro Leu Thr Leu
260 265 270

Ser Trp Glu Pro
275

<210> 405
<211> 817
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 405

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
50 55 60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile

65 70 75 80

Ala Leu Arg Ala Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
130 135 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145 150 155 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
165 170 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
180 185 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
195 200 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
210 215 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225 230 235 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
245 250 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
260 265 270

Arg Trp Glu Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
275 280 285

Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu

```
    290                 295                 300

Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn
305                 310                 315                 320

Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met
                325                 330                 335

Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu
            340                 345                 350

Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe
        355                 360                 365

His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu
    370                 375                 380

Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu
385                 390                 395                 400

Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln
                405                 410                 415

Ser Ile Ile Ser Thr Leu Thr Gly Gly Gly Gly Ser Gly Gly Gly Gly
            420                 425                 430

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser
        435                 440                 445

Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu
    450                 455                 460

Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr
465                 470                 475                 480

Arg Met Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu
                485                 490                 495

Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val
            500                 505                 510

Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu
```

```
        515                 520                 525

Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr
    530                 535                 540

Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe
545                 550                 555                 560

Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr
                565                 570                 575

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp
            580                 585                 590

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly
        595                 600                 605

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
    610                 615                 620

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
625                 630                 635                 640

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
                645                 650                 655

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
            660                 665                 670

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
        675                 680                 685

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
    690                 695                 700

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
705                 710                 715                 720

Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
                725                 730                 735

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
```

```
            740                 745                 750

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
        755                 760                 765

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
    770                 775                 780

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
785                 790                 795                 800

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
                805                 810                 815

Gly
```

<210> 406
<211> 813
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 406

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95
```

```
Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
145                 150                 155                 160

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
                165                 170                 175

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
            180                 185                 190

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
        195                 200                 205

Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
    210                 215                 220

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
225                 230                 235                 240

Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
                245                 250                 255

Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
            260                 265                 270

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
        275                 280                 285

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    290                 295                 300

Gly Ser Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg
305                 310                 315                 320
```

```
Pro Gly Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp
                325                 330                 335

Thr Gln Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu
            340                 345                 350

Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu
        355                 360                 365

Glu Thr Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu
    370                 375                 380

Arg Ile Ala Leu Arg Ala Tyr Asn Gln Ser Glu Ala Gly Ser His Thr
385                 390                 395                 400

Leu Gln Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu
                405                 410                 415

Arg Gly Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu
            420                 425                 430

Lys Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile
        435                 440                 445

Thr Lys Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala
    450                 455                 460

Tyr Leu Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn
465                 470                 475                 480

Gly Lys Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr
                485                 490                 495

His His Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu
            500                 505                 510

Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu
        515                 520                 525

Asp Gln Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp
    530                 535                 540
```

```
Gly Thr Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu
545                 550                 555                 560

Gln Arg Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu
                565                 570                 575

Thr Leu Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys
            580                 585                 590

Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu
        595                 600                 605

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
    610                 615                 620

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
625                 630                 635                 640

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
                645                 650                 655

Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
            660                 665                 670

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
        675                 680                 685

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

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
705                 710                 715                 720

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
                725                 730                 735

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
            740                 745                 750

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
        755                 760                 765
```

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
770 775 780

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
785 790 795 800

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
805 810

<210> 407
<211> 807
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 407

Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1 5 10 15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
20 25 30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
35 40 45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
50 55 60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65 70 75 80

Ala Leu Arg Ala Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
85 90 95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
100 105 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
115 120 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys

```
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys Pro Pro
        275                 280                 285

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
    290                 295                 300

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
305                 310                 315                 320

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
                325                 330                 335

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
            340                 345                 350

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
```

```
        355                 360                 365

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
    370                 375                 380

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
385                 390                 395                 400

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
                405                 410                 415

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
            420                 425                 430

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
        435                 440                 445

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    450                 455                 460

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
465                 470                 475                 480

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                485                 490                 495

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Gly Gly Gly Gly Ser Gly
            500                 505                 510

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
        515                 520                 525

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
    530                 535                 540

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
545                 550                 555                 560

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
                565                 570                 575

Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
```

580 585 590

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
595 600 605

Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
610 615 620

Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
625 630 635 640

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
645 650 655

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
660 665 670

Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu
675 680 685

Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn
690 695 700

Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met
705 710 715 720

Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu
725 730 735

Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe
740 745 750

His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu
755 760 765

Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu
770 775 780

Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln
785 790 795 800

Ser Ile Ile Ser Thr Leu Thr

805

<210> 408
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 408

Cys Met Thr Trp Asn Gln Met Asn Leu Gly Gly Gly Gly Ser Gly Gly
1 5 10 15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
20 25 30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
35 40 45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
50 55 60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65 70 75 80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
85 90 95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
100 105 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
115 120

<210> 409
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 409

Cys Tyr Thr Trp Asn Gln Met Asn Leu Gly Gly Gly Gly Ser Gly Gly

1 5 10 15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
20 25 30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
35 40 45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
50 55 60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65 70 75 80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
85 90 95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
100 105 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
115 120

<210> 410
<211> 227
<212> PRT
<213> Homo sapiens

<400> 410

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
1 5 10 15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
20 25 30

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
35 40 45

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

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
65 70 75 80

```
Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
                85                  90                  95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
            100                 105                 110

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

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
    130                 135                 140

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
145                 150                 155                 160

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
                165                 170                 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
            180                 185                 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
        195                 200                 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
    210                 215                 220

Pro Gly Lys
225
```

<210> 411
<211> 325
<212> PRT
<213> Homo sapiens

<400> 411

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

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

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

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

Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr Tyr
65                  70                  75                  80

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

Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro Pro
            100                 105                 110

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

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

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

Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
                165                 170                 175

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

Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ala
        195                 200                 205

Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu Pro
    210                 215                 220

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

Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
                245                 250                 255
```

```
Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
            260                 265                 270

Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
        275                 280                 285

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
    290                 295                 300

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
305                 310                 315                 320

Leu Ser Pro Gly Lys
                325
```

<210> 412
<211> 246
<212> PRT
<213> Homo sapiens

<400> 412

```
His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Leu Lys Thr
1               5                   10                  15

Pro Leu Gly Asp Thr Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
            20                  25                  30

Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
        35                  40                  45

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
    50                  55                  60

Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
65                  70                  75                  80

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
                85                  90                  95

Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
            100                 105                 110
```

```
Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
        115                 120                 125

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

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn
145                 150                 155                 160

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
                165                 170                 175

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
            180                 185                 190

Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
        195                 200                 205

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
    210                 215                 220

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
225                 230                 235                 240

Ser Leu Ser Pro Gly Lys
                245
```

<210> 413
<211> 383
<212> PRT
<213> Homo sapiens

<400> 413

```
Pro Thr Lys Ala Pro Asp Val Phe Pro Ile Ile Ser Gly Cys Arg His
1               5                   10                  15

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

His Pro Thr Ser Val Thr Val Thr Trp Tyr Met Gly Thr Gln Ser Gln
        35                  40                  45

Pro Gln Arg Thr Phe Pro Glu Ile Gln Arg Arg Asp Ser Tyr Tyr Met
```

```
    50                  55                  60

Thr Ser Ser Gln Leu Ser Thr Pro Leu Gln Gln Trp Arg Gln Gly Glu
65                  70                  75                  80

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

Phe Arg Trp Pro Glu Ser Pro Lys Ala Gln Ala Ser Ser Val Pro Thr
            100                 105                 110

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

Ala Thr Thr Arg Asn Thr Gly Arg Gly Gly Glu Glu Lys Lys Lys Glu
    130                 135                 140

Lys Glu Lys Glu Glu Gln Glu Glu Arg Glu Thr Lys Thr Pro Glu Cys
145                 150                 155                 160

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

Gln Asp Leu Trp Leu Arg Asp Lys Ala Thr Phe Thr Cys Phe Val Val
            180                 185                 190

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

Val Pro Thr Gly Gly Val Glu Glu Gly Leu Leu Glu Arg His Ser Asn
    210                 215                 220

Gly Ser Gln Ser Gln His Ser Arg Leu Thr Leu Pro Arg Ser Leu Trp
225                 230                 235                 240

Asn Ala Gly Thr Ser Val Thr Cys Thr Leu Asn His Pro Ser Leu Pro
                245                 250                 255

Pro Gln Arg Leu Met Ala Leu Arg Glu Pro Ala Ala Gln Ala Pro Val
            260                 265                 270

Lys Leu Ser Leu Asn Leu Leu Ala Ser Ser Asp Pro Pro Glu Ala Ala
```

```
        275                 280                 285

Ser Trp Leu Leu Cys Glu Val Ser Gly Phe Ser Pro Pro Asn Ile Leu
    290                 295                 300

Leu Met Trp Leu Glu Asp Gln Arg Glu Val Asn Thr Ser Gly Phe Ala
305                 310                 315                 320

Pro Ala Arg Pro Pro Pro Gln Pro Arg Ser Thr Thr Phe Trp Ala Trp
                325                 330                 335

Ser Val Leu Arg Val Pro Ala Pro Pro Ser Pro Gln Pro Ala Thr Tyr
            340                 345                 350

Thr Cys Val Val Ser His Glu Asp Ser Arg Thr Leu Leu Asn Ala Ser
        355                 360                 365

Arg Ser Leu Glu Val Ser Tyr Val Thr Asp His Gly Pro Met Lys
    370                 375                 380
```

<210> 414
<211> 276
<212> PRT
<213> Homo sapiens

<400> 414

```
Val Thr Ser Thr Leu Thr Ile Lys Glx Ser Asp Trp Leu Gly Glu Ser
1               5                   10                  15

Met Phe Thr Cys Arg Val Asp His Arg Gly Leu Thr Phe Gln Gln Asn
            20                  25                  30

Ala Ser Ser Met Cys Val Pro Asp Gln Asp Thr Ala Ile Arg Val Phe
        35                  40                  45

Ala Ile Pro Pro Ser Phe Ala Ser Ile Phe Leu Thr Lys Ser Thr Lys
    50                  55                  60

Leu Thr Cys Leu Val Thr Asp Leu Thr Thr Tyr Asx Ser Val Thr Ile
65                  70                  75                  80

Ser Trp Thr Arg Glu Glu Asn Gly Ala Val Lys Thr His Thr Asn Ile
                85                  90                  95
```

```
Ser Glu Ser His Pro Asn Ala Thr Phe Ser Ala Val Gly Glu Ala Ser
            100                 105                 110

Ile Cys Glu Asp Asx Asp Trp Ser Gly Glu Arg Phe Thr Cys Thr Val
        115                 120                 125

Thr His Thr Asp Leu Pro Ser Pro Leu Lys Gln Thr Ile Ser Arg Pro
    130                 135                 140

Lys Gly Val Ala Leu His Arg Pro Asx Val Tyr Leu Leu Pro Pro Ala
145                 150                 155                 160

Arg Glx Glx Leu Asn Leu Arg Glu Ser Ala Thr Ile Thr Cys Leu Val
                165                 170                 175

Thr Gly Phe Ser Pro Ala Asp Val Phe Val Glu Trp Met Gln Arg Gly
            180                 185                 190

Glu Pro Leu Ser Pro Gln Lys Tyr Val Thr Ser Ala Pro Met Pro Glu
        195                 200                 205

Pro Gln Ala Pro Gly Arg Tyr Phe Ala His Ser Ile Leu Thr Val Ser
    210                 215                 220

Glu Glu Glu Trp Asn Thr Gly Gly Thr Tyr Thr Cys Val Val Ala His
225                 230                 235                 240

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

Gly Lys Pro Thr Leu Tyr Asn Val Ser Leu Val Met Ser Asp Thr Ala
            260                 265                 270

Gly Thr Cys Tyr
        275
```

<210> 415
<211> 353
<212> PRT
<213> Homo sapiens

<400> 415

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

Gln Pro Asp Gly Asn Val Val Ile Ala Cys Leu Val Gln Gly Phe Phe
            20                  25                  30

Pro Gln Glu Pro Leu Ser Val Thr Trp Ser Glu Ser Gly Gln Gly Val
        35                  40                  45

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

Thr Thr Ser Ser Gln Leu Thr Leu Pro Ala Thr Gln Cys Leu Ala Gly
65                  70                  75                  80

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

Val Thr Val Pro Cys Pro Val Pro Ser Thr Pro Pro Thr Pro Ser Pro
            100                 105                 110

Ser Thr Pro Pro Thr Pro Ser Pro Ser Cys Cys His Pro Arg Leu Ser
        115                 120                 125

Leu His Arg Pro Ala Leu Glu Asp Leu Leu Leu Gly Ser Glu Ala Asn
    130                 135                 140

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

Thr Trp Thr Pro Ser Ser Gly Lys Ser Ala Val Gln Gly Pro Pro Glu
                165                 170                 175

Arg Asp Leu Cys Gly Cys Tyr Ser Val Ser Ser Val Leu Pro Gly Cys
            180                 185                 190

Ala Glu Pro Trp Asn His Gly Lys Thr Phe Thr Cys Thr Ala Ala Tyr
        195                 200                 205

Pro Glu Ser Lys Thr Pro Leu Thr Ala Thr Leu Ser Lys Ser Gly Asn
    210                 215                 220
```

```
Thr Phe Arg Pro Glu Val His Leu Leu Pro Pro Pro Ser Glu Glu Leu
225                 230                 235                 240

Ala Leu Asn Glu Leu Val Thr Leu Thr Cys Leu Ala Arg Gly Phe Ser
                245                 250                 255

Pro Lys Asp Val Leu Val Arg Trp Leu Gln Gly Ser Gln Glu Leu Pro
            260                 265                 270

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

Thr Thr Thr Phe Ala Val Thr Ser Ile Leu Arg Val Ala Ala Glu Asp
    290                 295                 300

Trp Lys Lys Gly Asp Thr Phe Ser Cys Met Val Gly His Glu Ala Leu
305                 310                 315                 320

Pro Leu Ala Phe Thr Gln Lys Thr Ile Asp Arg Leu Ala Gly Lys Pro
                325                 330                 335

Thr His Val Asn Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys
            340                 345                 350

Tyr
```

<210> 416
<211> 222
<212> PRT
<213> Homo sapiens

<400> 416

```
Ala Asp Pro Cys Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser
1               5                   10                  15

Arg Pro Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr
            20                  25                  30

Cys Leu Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn Leu Thr
        35                  40                  45
```

```
Trp Ser Arg Ala Ser Gly Lys Pro Val Asn His Ser Thr Arg Lys Glu
    50                  55                  60

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

Gly Thr Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg Val Thr
                85                  90                  95

His Pro His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys Thr Ser
            100                 105                 110

Gly Pro Arg Ala Ala Pro Glu Val Tyr Ala Phe Ala Thr Pro Glu Trp
        115                 120                 125

Pro Gly Ser Arg Asp Lys Arg Thr Leu Ala Cys Leu Ile Gln Asn Phe
    130                 135                 140

Met Pro Glu Asp Ile Ser Val Gln Trp Leu His Asn Glu Val Gln Leu
145                 150                 155                 160

Pro Asp Ala Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys Gly Ser
                165                 170                 175

Gly Phe Phe Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu Trp Glu
            180                 185                 190

Gln Lys Asp Glu Phe Ile Cys Arg Ala Val His Glu Ala Ala Ser Pro
        195                 200                 205

Ser Gln Thr Val Gln Arg Ala Val Ser Val Asn Pro Gly Lys
    210                 215                 220
```

<210> 417
<211> 327
<212> PRT
<213> Homo sapiens

<400> 417

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

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
```

```
            20                  25                  30

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

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

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

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

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro
            100                 105                 110

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

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

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

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190

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

Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
    210                 215                 220

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

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
```

245 250 255

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

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

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

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

Leu Ser Leu Ser Leu Gly Lys
325

<210> 418
<211> 227
<212> PRT
<213> Homo sapiens

<400> 418

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
1 5 10 15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
20 25 30

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
35 40 45

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

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
65 70 75 80

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
85 90 95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
100 105 110

```
Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
        115                 120                 125

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
    130                 135                 140

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
145                 150                 155                 160

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
                165                 170                 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
            180                 185                 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
        195                 200                 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
    210                 215                 220

Pro Gly Lys
225
```

<210> 419
<211> 227
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 419

```
Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu Gly
1               5                   10                  15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
            20                  25                  30

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

```
Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
    50                  55                  60

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
65                  70                  75                  80

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
                85                  90                  95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Ser Ile
            100                 105                 110

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

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
    130                 135                 140

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
145                 150                 155                 160

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
                165                 170                 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
            180                 185                 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
        195                 200                 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
    210                 215                 220

Pro Gly Lys
225
```

<210> 420
<211> 227
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 420

```
Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
1               5                  10                  15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
            20                  25                  30

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
        35                  40                  45

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

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Ala Ser Thr Tyr
65                  70                  75                  80

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
                85                  90                  95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
            100                 105                 110

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

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
    130                 135                 140

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
145                 150                 155                 160

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
                165                 170                 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
            180                 185                 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
        195                 200                 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
    210                 215                 220
```

Pro Gly Lys
225

<210> 421
<211> 227
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 421

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly
1 5 10 15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
20 25 30

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
35 40 45

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

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
65 70 75 80

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
85 90 95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
100 105 110

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

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
130 135 140

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
145 150 155 160

```
Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
                165                 170                 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
            180                 185                 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
        195                 200                 205

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
    210                 215                 220

Pro Gly Lys
225
```

<210> 422
<211> 813
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 422

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110
```

```
Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
145                 150                 155                 160

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
                165                 170                 175

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
            180                 185                 190

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
        195                 200                 205

Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
    210                 215                 220

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
225                 230                 235                 240

Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
                245                 250                 255

Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
            260                 265                 270

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
        275                 280                 285

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    290                 295                 300

Gly Ser Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg
305                 310                 315                 320

Pro Gly Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp
                325                 330                 335
```

```
Thr Gln Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu
            340                 345                 350

Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly
        355                 360                 365

Glu Thr Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu
    370                 375                 380

Gly Thr Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr
385                 390                 395                 400

Val Gln Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu
                405                 410                 415

Arg Gly Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu
            420                 425                 430

Lys Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr
        435                 440                 445

Thr Lys His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala
    450                 455                 460

Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn
465                 470                 475                 480

Gly Lys Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr
                485                 490                 495

His His Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu
            500                 505                 510

Ser Phe Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu
        515                 520                 525

Asp Gln Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp
    530                 535                 540

Gly Thr Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu
545                 550                 555                 560
```

```
Gln Arg Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu
               565                 570                 575

Thr Leu Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys
            580                 585                 590

Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu
        595                 600                 605

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
    610                 615                 620

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
625                 630                 635                 640

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
               645                 650                 655

Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
            660                 665                 670

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
        675                 680                 685

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

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
705                 710                 715                 720

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
               725                 730                 735

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
            740                 745                 750

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
        755                 760                 765

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
    770                 775                 780
```

```
Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
785                 790                 795                 800

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
                805                 810
```

<210> 423
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 423

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

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
        115                 120
```

<210> 424
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 424

Arg Met Phe Pro Asn Ala Pro Tyr Leu Gly Cys Gly Gly Ser Gly Gly
1 5 10 15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
20 25 30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
35 40 45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
50 55 60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65 70 75 80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
85 90 95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
100 105 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
115 120

<210> 425
<211> 812
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 425

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

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
20 25 30

```
Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
145                 150                 155                 160

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
                165                 170                 175

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
            180                 185                 190

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
        195                 200                 205

Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
    210                 215                 220

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
225                 230                 235                 240

Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
                245                 250                 255
```

```
Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
            260                 265                 270

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
        275                 280                 285

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    290                 295                 300

Gly Ser Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg
305                 310                 315                 320

Pro Gly Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp
                325                 330                 335

Thr Gln Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu
            340                 345                 350

Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly
        355                 360                 365

Glu Thr Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu
    370                 375                 380

Gly Thr Leu Arg Gly Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr
385                 390                 395                 400

Val Gln Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu
                405                 410                 415

Arg Gly Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu
            420                 425                 430

Lys Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr
        435                 440                 445

Thr Lys His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala
    450                 455                 460

Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn
465                 470                 475                 480
```

```
Gly Lys Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr
                485                 490                 495

His His Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu
            500                 505                 510

Ser Phe Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu
        515                 520                 525

Asp Gln Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp
    530                 535                 540

Gly Thr Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu
545                 550                 555                 560

Gln Arg Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu
                565                 570                 575

Thr Leu Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys
            580                 585                 590

Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu
        595                 600                 605

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
    610                 615                 620

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
625                 630                 635                 640

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
                645                 650                 655

Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
            660                 665                 670

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
        675                 680                 685

Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
    690                 695                 700
```

```
Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
705                 710                 715                 720

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
                725                 730                 735

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
            740                 745                 750

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
        755                 760                 765

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
    770                 775                 780

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
785                 790                 795                 800

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
                805                 810
```

<210> 426
<211> 813
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 426

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80
```

```
Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
145                 150                 155                 160

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
                165                 170                 175

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
            180                 185                 190

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
        195                 200                 205

Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
    210                 215                 220

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
225                 230                 235                 240

Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
                245                 250                 255

Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
            260                 265                 270

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
        275                 280                 285

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    290                 295                 300
```

```
Gly Ser Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg
305                 310                 315                 320

Pro Gly Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp
                325                 330                 335

Thr Gln Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu
            340                 345                 350

Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly
        355                 360                 365

Glu Thr Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu
    370                 375                 380

Gly Thr Leu Arg Gly Ala Tyr Asn Gln Ser Glu Ala Gly Ser His Thr
385                 390                 395                 400

Val Gln Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu
                405                 410                 415

Arg Gly Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu
            420                 425                 430

Lys Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr
        435                 440                 445

Thr Lys His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala
    450                 455                 460

Tyr Leu Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn
465                 470                 475                 480

Gly Lys Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr
                485                 490                 495

His His Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu
            500                 505                 510

Ser Phe Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu
        515                 520                 525
```

```
Asp Gln Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp
    530                 535                 540

Gly Thr Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu
545                 550                 555                 560

Gln Arg Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu
                565                 570                 575

Thr Leu Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys
            580                 585                 590

Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu
        595                 600                 605

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
    610                 615                 620

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
625                 630                 635                 640

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
                645                 650                 655

Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
            660                 665                 670

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
        675                 680                 685

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

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
705                 710                 715                 720

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
                725                 730                 735

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
            740                 745                 750
```

```
Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
        755                 760                 765

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
    770                 775                 780

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
785                 790                 795                 800

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
                805                 810
```

<210> 427
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 427

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

Gly Gly Ser Gly Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Arg His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110
```

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
115 120

<210> 428
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 428

Arg Met Phe Pro Asn Ala Pro Tyr Leu Gly Cys Gly Gly Ser Gly Gly
1 5 10 15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
20 25 30

Val Tyr Ser Arg His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
35 40 45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
50 55 60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65 70 75 80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
85 90 95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
100 105 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
115 120

<210> 429
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 429

```
Tyr Met Phe Pro Asn Ala Pro Tyr Leu Gly Cys Gly Gly Ser Gly Gly
1               5                  10                  15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
        115                 120
```

<210> 430
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 430

```
Tyr Met Phe Pro Asn Ala Pro Tyr Leu Gly Cys Gly Gly Ser Gly Gly
1               5                  10                  15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Arg His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60
```

```
Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
        115                 120
```

<210> 431
<211> 812
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 431

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala
1               5                   10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110
```

```
Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
145                 150                 155                 160

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
                165                 170                 175

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
            180                 185                 190

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
        195                 200                 205

Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
    210                 215                 220

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
225                 230                 235                 240

Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
                245                 250                 255

Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
            260                 265                 270

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
        275                 280                 285

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    290                 295                 300

Gly Ser Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg
305                 310                 315                 320

Pro Gly Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp
                325                 330                 335
```

```
Thr Gln Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu
            340                 345                 350

Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu
        355                 360                 365

Glu Thr Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu
    370                 375                 380

Arg Ile Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr
385                 390                 395                 400

Leu Gln Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu
                405                 410                 415

Arg Gly Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu
            420                 425                 430

Lys Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile
        435                 440                 445

Thr Lys Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala
    450                 455                 460

Tyr Leu Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn
465                 470                 475                 480

Gly Lys Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr
                485                 490                 495

His His Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu
            500                 505                 510

Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu
        515                 520                 525

Asp Gln Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp
    530                 535                 540

Gly Thr Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu
545                 550                 555                 560
```

```
Gln Arg Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu
               565                 570                 575

Thr Leu Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys
           580                 585                 590

Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu
       595                 600                 605

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
   610                 615                 620

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
625                 630                 635                 640

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
               645                 650                 655

Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
           660                 665                 670

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
       675                 680                 685

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

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
705                 710                 715                 720

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
               725                 730                 735

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
           740                 745                 750

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
       755                 760                 765

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
   770                 775                 780
```

```
Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
785                 790                 795                 800

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
                805                 810
```

<210> 432
<211> 807
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 432

```
Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
    50                  55                  60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65                  70                  75                  80

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160
```

```
Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
               165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys Pro Pro
        275                 280                 285

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
    290                 295                 300

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
305                 310                 315                 320

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
                325                 330                 335

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
            340                 345                 350

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
        355                 360                 365

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
    370                 375                 380
```

```
Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
385                 390                 395                 400

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
                405                 410                 415

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
            420                 425                 430

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
        435                 440                 445

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    450                 455                 460

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
465                 470                 475                 480

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                485                 490                 495

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Gly Gly Gly Gly Ser Gly
            500                 505                 510

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
        515                 520                 525

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
    530                 535                 540

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
545                 550                 555                 560

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
                565                 570                 575

Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
            580                 585                 590

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
        595                 600                 605
```

```
Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
    610                 615                 620

Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
625                 630                 635                 640

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
                645                 650                 655

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
            660                 665                 670

Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu
        675                 680                 685

Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn
    690                 695                 700

Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met
705                 710                 715                 720

Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu
                725                 730                 735

Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe
            740                 745                 750

His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu
        755                 760                 765

Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu
    770                 775                 780

Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln
785                 790                 795                 800

Ser Ile Ile Ser Thr Leu Thr
                805
```

<210> 433
<211> 506

<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 433

```
Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
    50                  55                  60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65                  70                  75                  80

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190
```

```
Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys Pro Pro
        275                 280                 285

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
    290                 295                 300

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
305                 310                 315                 320

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
                325                 330                 335

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
            340                 345                 350

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
        355                 360                 365

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
    370                 375                 380

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
385                 390                 395                 400

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
                405                 410                 415
```

```
Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
            420                 425                 430

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
        435                 440                 445

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    450                 455                 460

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
465                 470                 475                 480

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                485                 490                 495

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
            500                 505
```

<210> 434
<211> 507
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 434

```
Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
    50                  55                  60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65                  70                  75                  80

Ala Leu Arg Ala Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95
```

```
Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys Pro Pro
        275                 280                 285

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
    290                 295                 300

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
305                 310                 315                 320
```

```
Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
                325                 330                 335

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
            340                 345                 350

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
        355                 360                 365

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
    370                 375                 380

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
385                 390                 395                 400

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
                405                 410                 415

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
            420                 425                 430

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
        435                 440                 445

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    450                 455                 460

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
465                 470                 475                 480

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                485                 490                 495

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            500                 505
```

<210> 435
<211> 812
<212> PRT
<213> Artificial sequence

<220>

<223> synthetic sequence

<400> 435

```
Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala
1               5                  10                  15

Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys
            20                  25                  30

Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met Pro Lys
        35                  40                  45

Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu Leu Lys
    50                  55                  60

Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe His Leu
65                  70                  75                  80

Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu Glu Leu
                85                  90                  95

Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala
            100                 105                 110

Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile
        115                 120                 125

Ile Ser Thr Leu Thr Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
    130                 135                 140

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
145                 150                 155                 160

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
                165                 170                 175

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
            180                 185                 190

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
        195                 200                 205
```

```
Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
    210                 215                 220

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
225                 230                 235                 240

Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
                245                 250                 255

Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
            260                 265                 270

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
        275                 280                 285

Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
    290                 295                 300

Gly Ser Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg
305                 310                 315                 320

Pro Gly Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp
                325                 330                 335

Thr Gln Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu
            340                 345                 350

Pro Arg Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu
        355                 360                 365

Glu Thr Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu
    370                 375                 380

Arg Ile Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr
385                 390                 395                 400

Leu Gln Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu
                405                 410                 415

Arg Gly Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu
            420                 425                 430
```

Lys Glu Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile
435 440 445

Thr Lys Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala
450 455 460

Tyr Leu Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn
465 470 475 480

Gly Lys Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr
485 490 495

His His Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu
500 505 510

Gly Phe Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu
515 520 525

Asp Gln Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp
530 535 540

Gly Thr Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu
545 550 555 560

Gln Arg Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu
565 570 575

Thr Leu Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys
580 585 590

Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu
595 600 605

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
610 615 620

Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
625 630 635 640

Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
645 650 655

```
Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
            660                 665                 670

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
        675                 680                 685

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

Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
705                 710                 715                 720

Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
                725                 730                 735

Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
            740                 745                 750

Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
        755                 760                 765

Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
    770                 775                 780

Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
785                 790                 795                 800

His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
                805                 810
```

<210> 436
<211> 807
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 436

```
Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30
```

```
Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
    50                  55                  60

Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65                  70                  75                  80

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255
```

```
Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys Pro Pro
        275                 280                 285

Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
    290                 295                 300

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
305                 310                 315                 320

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
                325                 330                 335

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
            340                 345                 350

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
        355                 360                 365

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
    370                 375                 380

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
385                 390                 395                 400

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
                405                 410                 415

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
            420                 425                 430

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
        435                 440                 445

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    450                 455                 460

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
465                 470                 475                 480
```

```
Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                485                 490                 495

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Gly Gly Gly Gly Ser Gly
            500                 505                 510

Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr
        515                 520                 525

Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln Met
    530                 535                 540

Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met
545                 550                 555                 560

Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys His
                565                 570                 575

Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu Asn
            580                 585                 590

Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile Ser
        595                 600                 605

Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe
    610                 615                 620

Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu Asn
625                 630                 635                 640

Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly Gly
                645                 650                 655

Gly Gly Ser Gly Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly
            660                 665                 670

Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln Leu
        675                 680                 685

Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn Asn
    690                 695                 700
```

```
Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr Met
705                 710                 715                 720

Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu Glu
                725                 730                 735

Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn Phe
            740                 745                 750

His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val Leu
        755                 760                 765

Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp Glu
    770                 775                 780

Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys Gln
785                 790                 795                 800

Ser Ile Ile Ser Thr Leu Thr
                805
```

<210> 437
<211> 506
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 437

```
Gly Ser His Ser Met Arg Tyr Phe Ser Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Glu Glu Thr
    50                  55                  60
```

```
Gly Lys Val Lys Ala His Ser Gln Thr Asp Arg Glu Asn Leu Arg Ile
65                  70                  75                  80

Ala Leu Arg Cys Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Leu Gln
                85                  90                  95

Met Met Phe Gly Cys Asp Val Gly Ser Asp Gly Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Ile Thr Lys
    130                 135                 140

Arg Lys Trp Glu Ala Ala His Val Ala Glu Gln Gln Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Asp Gly Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Pro Pro Lys Thr His Met Thr His His
            180                 185                 190

Pro Ile Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Gly Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Glu Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu Ala Ala Ala Gly Gly Asp Lys Thr His Thr Cys Pro Pro
        275                 280                 285
```

```
Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro
    290                 295                 300

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
305                 310                 315                 320

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
                325                 330                 335

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
            340                 345                 350

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
        355                 360                 365

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
    370                 375                 380

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
385                 390                 395                 400

Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
                405                 410                 415

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
            420                 425                 430

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
        435                 440                 445

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    450                 455                 460

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
465                 470                 475                 480

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                485                 490                 495

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
            500                 505
```

<210> 438
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 438

Cys Tyr Thr Trp Asn Gln Met Asn Leu Gly Cys Gly Gly Ser Gly Gly
1 5 10 15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
20 25 30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
35 40 45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
50 55 60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65 70 75 80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
85 90 95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
100 105 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
115 120

<210> 439
<211> 424
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 439

Cys Tyr Thr Trp Asn Gln Met Asn Leu Gly Cys Gly Gly Ser Gly Gly
1 5 10 15

```
Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met Gly Gly Gly Gly Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser
    130                 135                 140

Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln
145                 150                 155                 160

Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg
                165                 170                 175

Met Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys
            180                 185                 190

His Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu
        195                 200                 205

Asn Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile
    210                 215                 220

Ser Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr
225                 230                 235                 240
```

```
Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu
                245                 250                 255

Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly
            260                 265                 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
        275                 280                 285

Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln
    290                 295                 300

Leu Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn
305                 310                 315                 320

Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr
                325                 330                 335

Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu
            340                 345                 350

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

Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val
    370                 375                 380

Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp
385                 390                 395                 400

Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys
                405                 410                 415

Gln Ser Ile Ile Ser Thr Leu Thr
            420
```

<210> 440
<211> 424
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 440

```
Cys Tyr Thr Trp Asn Gln Met Asn Leu Gly Gly Gly Gly Ser Gly Gly
1               5                  10                  15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met Gly Gly Gly Gly Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser
    130                 135                 140

Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln
145                 150                 155                 160

Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg
                165                 170                 175

Met Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys
            180                 185                 190

His Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu
        195                 200                 205

Asn Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile
    210                 215                 220
```

```
Ser Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr
225                 230                 235                 240

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

Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly
            260                 265                 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
        275                 280                 285

Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln
    290                 295                 300

Leu Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn
305                 310                 315                 320

Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr
                325                 330                 335

Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu
            340                 345                 350

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

Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val
    370                 375                 380

Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp
385                 390                 395                 400

Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys
                405                 410                 415

Gln Ser Ile Ile Ser Thr Leu Thr
            420
```

<210> 441
<211> 123

<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 441

Cys Tyr Thr Trp Asn Gln Met Asn Leu Gly Cys Gly Gly Ser Gly Gly
1 5 10 15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
20 25 30

Val Tyr Ser Arg His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
35 40 45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
50 55 60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65 70 75 80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
85 90 95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
100 105 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
115 120

<210> 442
<211> 424
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 442

Cys Tyr Thr Trp Asn Gln Met Asn Leu Gly Cys Gly Gly Ser Gly Gly
1 5 10 15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
20 25 30

```
Val Tyr Ser Arg His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met Gly Gly Gly Gly Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser
    130                 135                 140

Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln
145                 150                 155                 160

Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg
                165                 170                 175

Met Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys
            180                 185                 190

His Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu
        195                 200                 205

Asn Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile
    210                 215                 220

Ser Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr
225                 230                 235                 240

Phe Met Cys Glu Tyr Ala Asp Glu Thr Ala Thr Ile Val Glu Phe Leu
                245                 250                 255
```

```
Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly
            260                 265                 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
        275                 280                 285

Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln
    290                 295                 300

Leu Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn
305                 310                 315                 320

Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr
                325                 330                 335

Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu
            340                 345                 350

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

Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val
    370                 375                 380

Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp
385                 390                 395                 400

Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys
                405                 410                 415

Gln Ser Ile Ile Ser Thr Leu Thr
            420
```

<210> 443
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 443

```
Asn Tyr Met Asn Leu Gly Ala Thr Leu Gly Cys Gly Gly Ser Gly Gly
1               5                  10                  15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
        115                 120
```

<210> 444
<211> 424
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 444

```
Asn Tyr Met Asn Leu Gly Ala Thr Leu Gly Cys Gly Gly Ser Gly Gly
1               5                  10                  15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60
```

```
Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met Gly Gly Gly Gly Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser
    130                 135                 140

Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln
145                 150                 155                 160

Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg
                165                 170                 175

Met Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys
            180                 185                 190

His Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu
        195                 200                 205

Asn Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile
    210                 215                 220

Ser Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr
225                 230                 235                 240

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

Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly
            260                 265                 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
        275                 280                 285
```

```
Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln
    290                 295                 300

Leu Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn
305                 310                 315                 320

Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr
                325                 330                 335

Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu
            340                 345                 350

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

Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val
    370                 375                 380

Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp
385                 390                 395                 400

Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys
                405                 410                 415

Gln Ser Ile Ile Ser Thr Leu Thr
            420
```

<210> 445
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 445

```
Asn Tyr Met Asn Leu Gly Ala Thr Leu Gly Gly Gly Gly Ser Gly Gly
1               5                   10                  15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30
```

```
Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
        115                 120
```

<210> 446
<211> 424
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 446

```
Asn Tyr Met Asn Leu Gly Ala Thr Leu Gly Gly Gly Gly Ser Gly Gly
1               5                   10                  15

Gly Gly Ser Gly Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Cys His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95
```

```
Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met Gly Gly Gly Gly Ser
        115                 120                 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser
    130                 135                 140

Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln
145                 150                 155                 160

Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg
                165                 170                 175

Met Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys
            180                 185                 190

His Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu
        195                 200                 205

Asn Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile
    210                 215                 220

Ser Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr
225                 230                 235                 240

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

Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly
            260                 265                 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
        275                 280                 285

Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln
    290                 295                 300

Leu Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn
305                 310                 315                 320
```

```
Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr
                325                 330                 335

Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu
            340                 345                 350

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

Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val
    370                 375                 380

Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp
385                 390                 395                 400

Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys
                405                 410                 415

Gln Ser Ile Ile Ser Thr Leu Thr
            420
```

<210> 447
<211> 123
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 447

```
Asn Tyr Met Asn Leu Gly Ala Thr Leu Gly Cys Gly Gly Ser Gly Gly
1               5                   10                  15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Arg His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60
```

```
Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met
        115                 120
```

<210> 448
<211> 424
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 448

```
Asn Tyr Met Asn Leu Gly Ala Thr Leu Gly Cys Gly Gly Ser Gly Gly
1               5                   10                  15

Gly Gly Ser Gly Gly Gly Gly Ser Ile Gln Arg Thr Pro Lys Ile Gln
            20                  25                  30

Val Tyr Ser Arg His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn
        35                  40                  45

Cys Tyr Val Ser Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu
    50                  55                  60

Lys Asn Gly Glu Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe
65                  70                  75                  80

Ser Lys Asp Trp Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro
                85                  90                  95

Thr Glu Lys Asp Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser
            100                 105                 110

Gln Pro Lys Ile Val Lys Trp Asp Arg Asp Met Gly Gly Gly Gly Ser
        115                 120                 125
```

```
Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Ala Pro Thr Ser Ser Ser
    130                 135                 140

Thr Lys Lys Thr Gln Leu Gln Leu Glu Ala Leu Leu Leu Asp Leu Gln
145                 150                 155                 160

Met Ile Leu Asn Gly Ile Asn Asn Tyr Lys Asn Pro Lys Leu Thr Arg
                165                 170                 175

Met Leu Thr Ala Lys Phe Tyr Met Pro Lys Lys Ala Thr Glu Leu Lys
            180                 185                 190

His Leu Gln Cys Leu Glu Glu Glu Leu Lys Pro Leu Glu Glu Val Leu
        195                 200                 205

Asn Leu Ala Gln Ser Lys Asn Phe His Leu Arg Pro Arg Asp Leu Ile
    210                 215                 220

Ser Asn Ile Asn Val Ile Val Leu Glu Leu Lys Gly Ser Glu Thr Thr
225                 230                 235                 240

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

Asn Arg Trp Ile Thr Phe Cys Gln Ser Ile Ile Ser Thr Leu Thr Gly
            260                 265                 270

Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly
        275                 280                 285

Gly Gly Ser Ala Pro Thr Ser Ser Ser Thr Lys Lys Thr Gln Leu Gln
    290                 295                 300

Leu Glu Ala Leu Leu Leu Asp Leu Gln Met Ile Leu Asn Gly Ile Asn
305                 310                 315                 320

Asn Tyr Lys Asn Pro Lys Leu Thr Arg Met Leu Thr Ala Lys Phe Tyr
                325                 330                 335

Met Pro Lys Lys Ala Thr Glu Leu Lys His Leu Gln Cys Leu Glu Glu
            340                 345                 350
```

```
Glu Leu Lys Pro Leu Glu Glu Val Leu Asn Leu Ala Gln Ser Lys Asn
        355                 360                 365

Phe His Leu Arg Pro Arg Asp Leu Ile Ser Asn Ile Asn Val Ile Val
    370                 375                 380

Leu Glu Leu Lys Gly Ser Glu Thr Thr Phe Met Cys Glu Tyr Ala Asp
385                 390                 395                 400

Glu Thr Ala Thr Ile Val Glu Phe Leu Asn Arg Trp Ile Thr Phe Cys
                405                 410                 415

Gln Ser Ile Ile Ser Thr Leu Thr
            420
```

<210> 449
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 449

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

Leu Arg Gly Tyr Tyr Asn Gln Ser Glu Ala Gly Ser His Thr Val Gln
                85                  90                  95
```

```
Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Ala Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 450
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 450

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                  10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110

Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220
```

```
Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```

<210> 451
<211> 275
<212> PRT
<213> Artificial sequence

<220>
<223> synthetic sequence

<400> 451

```
Gly Ser His Ser Met Arg Tyr Phe Phe Thr Ser Val Ser Arg Pro Gly
1               5                   10                  15

Arg Gly Glu Pro Arg Phe Ile Ala Val Gly Tyr Val Asp Asp Thr Gln
            20                  25                  30

Phe Val Arg Phe Asp Ser Asp Ala Ala Ser Gln Arg Met Glu Pro Arg
        35                  40                  45

Ala Pro Trp Ile Glu Gln Glu Gly Pro Glu Tyr Trp Asp Gly Glu Thr
    50                  55                  60

Arg Lys Val Lys Ala His Ser Gln Thr His Arg Val Asp Leu Gly Thr
65                  70                  75                  80

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

Arg Met Tyr Gly Cys Asp Val Gly Ser Asp Trp Arg Phe Leu Arg Gly
            100                 105                 110
```

```
Tyr His Gln Tyr Ala Tyr Asp Gly Lys Asp Tyr Ile Ala Leu Lys Glu
        115                 120                 125

Asp Leu Arg Ser Trp Thr Ala Ala Asp Met Ala Ala Gln Thr Thr Lys
    130                 135                 140

His Lys Trp Glu Ala Ala His Val Ala Glu Gln Leu Arg Ala Tyr Leu
145                 150                 155                 160

Glu Gly Thr Cys Val Glu Trp Leu Arg Arg Tyr Leu Glu Asn Gly Lys
                165                 170                 175

Glu Thr Leu Gln Arg Thr Asp Ala Pro Lys Thr His Met Thr His His
            180                 185                 190

Ala Val Ser Asp His Glu Ala Thr Leu Arg Cys Trp Ala Leu Ser Phe
        195                 200                 205

Tyr Pro Ala Glu Ile Thr Leu Thr Trp Gln Arg Asp Gly Glu Asp Gln
    210                 215                 220

Thr Gln Asp Thr Glu Leu Val Glu Thr Arg Pro Cys Gly Asp Gly Thr
225                 230                 235                 240

Phe Gln Lys Trp Ala Ala Val Val Val Pro Ser Gly Gln Glu Gln Arg
                245                 250                 255

Tyr Thr Cys His Val Gln His Glu Gly Leu Pro Lys Pro Leu Thr Leu
            260                 265                 270

Arg Trp Glu
        275
```