SEQUENCE LISTING

<110> SCHOLAR ROCK, INC.

<120> COMPOSITIONS AND METHODS FOR GROWTH FACTOR MODULATION

<130> 2035.1001PCT

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<141> 2014-05-06

<150> 61/900,438
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<151> 2013-05-06

<160> 297

<170> PatentIn version 3.5

<210> 1
<211> 361
<212> PRT
<213> Homo sapiens

<400> 1

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160
```

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360


<210> 2
<211> 395
<212> PRT
<213> Homo sapiens

<400> 2
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1               5                   10                  15

Arg Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Lys Leu Thr
            20                  25                  30
```

```
Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
        35                  40                  45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
    50                  55                  60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65                  70                  75                  80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
                85                  90                  95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
            100                 105                 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
    130                 135                 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145                 150                 155                 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
                165                 170                 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
            180                 185                 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225                 230                 235                 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser
                245                 250                 255

Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu
            260                 265                 270

Glu Ser Gln Gln Thr Asn Arg Arg Lys Lys Arg Ala Leu Asp Ala Ala
        275                 280                 285

Tyr Cys Phe Arg Asn Val Gln Asp Asn Cys Cys Leu Arg Pro Leu Tyr
    290                 295                 300
```

Ile Asp Phe Lys Arg Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys
305 310 315 320

Gly Tyr Asn Ala Asn Phe Cys Ala Gly Ala Cys Pro Tyr Leu Trp Ser
325 330 335

Ser Asp Thr Gln His Ser Arg Val Leu Ser Leu Tyr Asn Thr Ile Asn
340 345 350

Pro Glu Ala Ser Ala Ser Pro Cys Cys Val Ser Gln Asp Leu Glu Pro
355 360 365

Leu Thr Ile Leu Tyr Tyr Ile Gly Lys Thr Pro Lys Ile Glu Gln Leu
370 375 380

Ser Asn Met Ile Val Lys Ser Cys Lys Cys Ser
385 390 395

<210> 3
<211> 392
<212> PRT
<213> Homo sapiens

<400> 3
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
35 40 45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
50 55 60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65 70 75 80

Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu Ala Glu
85 90 95

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

Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg
115 120 125

Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn
130 135 140

Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile
145 150 155 160

```
Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr
                165                 170                 175

Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu
            180                 185                 190

Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro
        195                 200                 205

Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu
    210                 215                 220

Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly
225                 230                 235                 240

Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn Pro
                245                 250                 255

His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly
            260                 265                 270

Gln Gly Gly Gln Arg Lys Lys Arg Ala Leu Asp Thr Asn Tyr Cys Phe
        275                 280                 285

Arg Asn Leu Glu Glu Asn Cys Cys Val Arg Pro Leu Tyr Ile Asp Phe
    290                 295                 300

Arg Gln Asp Leu Gly Trp Lys Trp Val His Glu Pro Lys Gly Tyr Tyr
305                 310                 315                 320

Ala Asn Phe Cys Ser Gly Pro Cys Pro Tyr Leu Arg Ser Ala Asp Thr
                325                 330                 335

Thr His Ser Thr Val Leu Gly Leu Tyr Asn Thr Leu Asn Pro Glu Ala
            340                 345                 350

Ser Ala Ser Pro Cys Cys Val Pro Gln Asp Leu Glu Pro Leu Thr Ile
        355                 360                 365

Leu Tyr Tyr Val Gly Arg Thr Pro Lys Val Glu Gln Leu Ser Asn Met
    370                 375                 380

Val Val Lys Ser Cys Lys Cys Ser
385                 390
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<210> 4
<211> 383
<212> PRT
<213> Homo sapiens

<400> 4

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Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                  10                  15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95

Gly Asp Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His
            100                 105                 110

Ala Thr Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala
        115                 120                 125

Val Gln Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro
    130                 135                 140

Lys Val Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu
145                 150                 155                 160

Arg Pro Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu
                165                 170                 175

Lys Pro Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg
            180                 185                 190

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

Gly His Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe
    210                 215                 220

Arg Gln Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro
225                 230                 235                 240

Ser Gly Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly
                245                 250                 255

Leu His Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser
            260                 265                 270
```

Arg Arg Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg
275 280 285

Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp
290 295 300

Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln
305 310 315 320

Cys Glu Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln
325 330 335

Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys
340 345 350

Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile
355 360 365

Tyr Gly Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
370 375 380

<210> 5
<211> 352
<212> PRT
<213> Homo sapiens

<400> 5
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65 70 75 80

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
115 120 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
130 135 140

```
Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
                325                 330                 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
            340                 345                 350


<210> 6
<211> 406
<212> PRT
<213> Homo sapiens

<400> 6
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1               5                   10                  15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
            20                  25                  30
```

```
Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
    50                  55                  60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Glu Asn Gly Tyr
65                  70                  75                  80

Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu
                85                  90                  95

Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala
            100                 105                 110

Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly Ser Asp Leu Ser
        115                 120                 125

Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala
    130                 135                 140

Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys
145                 150                 155                 160

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

Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp
            180                 185                 190

Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln
        195                 200                 205

Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys
    210                 215                 220

Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys
225                 230                 235                 240

Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu
                245                 250                 255

Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser His Arg Pro Phe
            260                 265                 270

Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg
        275                 280                 285

Arg Arg Gly Leu Glu Cys Asp Gly Lys Val Asn Ile Cys Cys Lys Lys
    290                 295                 300
```

Gln Phe Phe Val Ser Phe Lys Asp Ile Gly Trp Asn Asp Trp Ile Ile
305 310 315 320

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

His Ile Ala Gly Thr Ser Gly Ser Ser Leu Ser Phe His Ser Thr Val
340 345 350

Ile Asn His Tyr Arg Met Arg Gly His Ser Pro Phe Ala Asn Leu Lys
355 360 365

Ser Cys Cys Val Pro Thr Lys Leu Arg Pro Met Ser Met Leu Tyr Tyr
370 375 380

Asp Asp Gly Gln Asn Ile Ile Lys Lys Asp Ile Gln Asn Met Ile Val
385 390 395 400

Glu Glu Cys Gly Cys Ser
405

<210> 7
<211> 379
<212> PRT
<213> Homo sapiens

<400> 7
Ser Pro Thr Pro Pro Pro Thr Pro Ala Ala Pro Pro Pro Pro Pro Pro
1 5 10 15

Pro Gly Ser Pro Gly Gly Ser Gln Asp Thr Cys Thr Ser Cys Gly Gly
20 25 30

Phe Arg Arg Pro Glu Glu Leu Gly Arg Val Asp Gly Asp Phe Leu Glu
35 40 45

Ala Val Lys Arg His Ile Leu Ser Arg Leu Gln Met Arg Gly Arg Pro
50 55 60

Asn Ile Thr His Ala Val Pro Lys Ala Ala Met Val Thr Ala Leu Arg
65 70 75 80

Lys Leu His Ala Gly Lys Val Arg Glu Asp Gly Arg Val Glu Ile Pro
85 90 95

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

Ser Glu Ile Ile Ser Phe Ala Glu Thr Asp Gly Leu Ala Ser Ser Arg
115 120 125

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

```
Val Val Gln Ala Ser Leu Trp Leu Tyr Leu Lys Leu Leu Pro Tyr Val
145                 150                 155                 160

Leu Glu Lys Gly Ser Arg Arg Lys Val Arg Val Lys Val Tyr Phe Gln
                165                 170                 175

Glu Gln Gly His Gly Asp Arg Trp Asn Met Val Glu Lys Arg Val Asp
            180                 185                 190

Leu Lys Arg Ser Gly Trp His Thr Phe Pro Leu Thr Glu Ala Ile Gln
        195                 200                 205

Ala Leu Phe Glu Arg Gly Glu Arg Arg Leu Asn Leu Asp Val Gln Cys
    210                 215                 220

Asp Ser Cys Gln Glu Leu Ala Val Val Pro Val Phe Val Asp Pro Gly
225                 230                 235                 240

Glu Glu Ser His Arg Pro Phe Val Val Val Gln Ala Arg Leu Gly Asp
                245                 250                 255

Ser Arg His Arg Ile Arg Lys Arg Gly Leu Glu Cys Asp Gly Arg Thr
            260                 265                 270

Asn Leu Cys Cys Arg Gln Gln Phe Phe Ile Asp Phe Arg Leu Ile Gly
        275                 280                 285

Trp Asn Asp Trp Ile Ile Ala Pro Thr Gly Tyr Tyr Gly Asn Tyr Cys
    290                 295                 300

Glu Gly Ser Cys Pro Ala Tyr Leu Ala Gly Val Pro Gly Ser Ala Ser
305                 310                 315                 320

Ser Phe His Thr Ala Val Val Asn Gln Tyr Arg Met Arg Gly Leu Asn
                325                 330                 335

Pro Gly Thr Val Asn Ser Cys Cys Ile Pro Thr Lys Leu Ser Thr Met
            340                 345                 350

Ser Met Leu Tyr Phe Asp Asp Glu Tyr Asn Ile Val Lys Arg Asp Val
        355                 360                 365

Pro Asn Met Ile Val Glu Glu Cys Gly Cys Ala
    370                 375
```

<210> 8
<211> 334
<212> PRT
<213> Homo sapiens

<400> 8

```
Thr Pro Arg Ala Gly Gly Gln Cys Pro Ala Cys Gly Gly Pro Thr Leu
1               5                  10                  15

Glu Leu Glu Ser Gln Arg Glu Leu Leu Leu Asp Leu Ala Lys Arg Ser
            20                  25                  30

Ile Leu Asp Lys Leu His Leu Thr Gln Arg Pro Thr Leu Asn Arg Pro
        35                  40                  45

Val Ser Arg Ala Ala Leu Arg Thr Ala Leu Gln His Leu His Gly Val
    50                  55                  60

Pro Gln Gly Ala Leu Leu Glu Asp Asn Arg Glu Gln Glu Cys Glu Ile
65                  70                  75                  80

Ile Ser Phe Ala Glu Thr Gly Leu Ser Thr Ile Asn Gln Thr Arg Leu
                85                  90                  95

Asp Phe His Phe Ser Ser Asp Arg Thr Ala Gly Asp Arg Glu Val Gln
            100                 105                 110

Gln Ala Ser Leu Met Phe Phe Val Gln Leu Pro Ser Asn Thr Thr Trp
        115                 120                 125

Thr Leu Lys Val Arg Val Leu Val Leu Gly Pro His Asn Thr Asn Leu
    130                 135                 140

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

Gln Leu Pro Leu Gly Pro Glu Ala Gln Ala Ala Cys Ser Gln Gly His
                165                 170                 175

Leu Thr Leu Glu Leu Val Leu Glu Gly Gln Val Ala Gln Ser Ser Val
            180                 185                 190

Ile Leu Gly Gly Ala Ala His Arg Pro Phe Val Ala Ala Arg Val Arg
        195                 200                 205

Val Gly Gly Lys His Gln Ile His Arg Arg Gly Ile Asp Cys Gln Gly
    210                 215                 220

Gly Ser Arg Met Cys Cys Arg Gln Glu Phe Phe Val Asp Phe Arg Glu
225                 230                 235                 240

Ile Gly Trp His Asp Trp Ile Ile Gln Pro Glu Gly Tyr Ala Met Asn
                245                 250                 255

Phe Cys Ile Gly Gln Cys Pro Leu His Ile Ala Gly Met Pro Gly Ile
            260                 265                 270
```

```
Ala Ala Ser Phe His Thr Ala Val Leu Asn Leu Leu Lys Ala Asn Thr
        275                 280                 285

Ala Ala Gly Thr Thr Gly Gly Gly Ser Cys Cys Val Pro Thr Ala Arg
    290                 295                 300

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

Thr Asp Ile Pro Asp Met Val Val Glu Ala Cys Gly Cys Ser
                325                 330
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<210> 9
<211> 331
<212> PRT
<213> Homo sapiens

<400> 9

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Gln Gly Thr Gly Ser Val Cys Pro Ser Cys Gly Gly Ser Lys Leu Ala
1               5                   10                  15

Pro Gln Ala Glu Arg Ala Leu Val Leu Glu Leu Ala Lys Gln Gln Ile
            20                  25                  30

Leu Asp Gly Leu His Leu Thr Ser Arg Pro Arg Ile Thr His Pro Pro
        35                  40                  45

Pro Gln Ala Ala Leu Thr Arg Ala Leu Arg Arg Leu Gln Pro Gly Ser
    50                  55                  60

Val Ala Pro Gly Asn Gly Glu Glu Val Ile Ser Phe Ala Thr Val Thr
65                  70                  75                  80

Asp Ser Thr Ser Ala Tyr Ser Ser Leu Leu Thr Phe His Leu Ser Thr
                85                  90                  95

Pro Arg Ser His His Leu Tyr His Ala Arg Leu Trp Leu His Val Leu
            100                 105                 110

Pro Thr Leu Pro Gly Thr Leu Cys Leu Arg Ile Phe Arg Trp Gly Pro
        115                 120                 125

Arg Arg Arg Arg Gln Gly Ser Arg Thr Leu Leu Ala Glu His His Ile
    130                 135                 140

Thr Asn Leu Gly Trp His Thr Leu Thr Leu Pro Ser Ser Gly Leu Arg
145                 150                 155                 160

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

Glu Gly Asn Ser Thr Val Thr Gly Gln Pro Arg Arg Leu Leu Asp Thr
            180                 185                 190
```

```
Ala Gly His Gln Gln Pro Phe Leu Glu Leu Lys Ile Arg Ala Asn Glu
        195                 200                 205

Pro Gly Ala Gly Arg Ala Arg Arg Arg Thr Pro Thr Cys Glu Pro Ala
    210                 215                 220

Thr Pro Leu Cys Cys Arg Arg Asp His Tyr Val Asp Phe Gln Glu Leu
225                 230                 235                 240

Gly Trp Arg Asp Trp Ile Leu Gln Pro Glu Gly Tyr Gln Leu Asn Tyr
                245                 250                 255

Cys Ser Gly Gln Cys Pro Pro His Leu Ala Gly Ser Pro Gly Ile Ala
            260                 265                 270

Ala Ser Phe His Ser Ala Val Phe Ser Leu Leu Lys Ala Asn Asn Pro
        275                 280                 285

Trp Pro Ala Ser Thr Ser Cys Cys Val Pro Thr Ala Arg Arg Pro Leu
    290                 295                 300

Ser Leu Leu Tyr Leu Asp His Asn Gly Asn Val Val Lys Thr Asp Val
305                 310                 315                 320

Pro Asp Met Val Val Glu Ala Cys Gly Cys Ser
                325                 330
```

<210> 10
<211> 345
<212> PRT
<213> Homo sapiens

<400> 10

```
Leu Thr Gly Glu Gln Leu Leu Gly Ser Leu Leu Arg Gln Leu Gln Leu
1               5                   10                  15

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

Pro Thr His Val Arg Ala Gln Tyr Val Ala Leu Leu Gln Arg Ser His
        35                  40                  45

Gly Asp Arg Ser Arg Gly Lys Arg Phe Ser Gln Ser Phe Arg Glu Val
    50                  55                  60

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

Gly Met Glu Gln Arg Leu Pro Pro Asn Ser Glu Leu Val Gln Ala Val
                85                  90                  95
```

```
Leu Arg Leu Phe Gln Glu Pro Val Pro Lys Ala Ala Leu His Arg His
            100                 105                 110

Gly Arg Leu Ser Pro Arg Ser Ala Arg Ala Arg Val Thr Val Glu Trp
        115                 120                 125

Leu Arg Val Arg Asp Asp Gly Ser Asn Arg Thr Ser Leu Ile Asp Ser
    130                 135                 140

Arg Leu Val Ser Val His Glu Ser Gly Trp Lys Ala Phe Asp Val Thr
145                 150                 155                 160

Glu Ala Val Asn Phe Trp Gln Gln Leu Ser Arg Pro Arg Gln Pro Leu
                165                 170                 175

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

Gly Ala His Lys Leu Val Arg Phe Ala Ser Gln Gly Ala Pro Ala Gly
        195                 200                 205

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

Gly Ala Gln Gly Asp Cys Asp Pro Glu Ala Pro Met Thr Glu Gly Thr
225                 230                 235                 240

Arg Cys Cys Arg Gln Glu Met Tyr Ile Asp Leu Gln Gly Met Lys Trp
                245                 250                 255

Ala Glu Asn Trp Val Leu Glu Pro Pro Gly Phe Leu Ala Tyr Glu Cys
            260                 265                 270

Val Gly Thr Cys Arg Gln Pro Pro Glu Ala Leu Ala Phe Lys Trp Pro
        275                 280                 285

Phe Leu Gly Pro Arg Gln Cys Ile Ala Ser Glu Thr Asp Ser Leu Pro
    290                 295                 300

Met Ile Val Ser Ile Lys Glu Gly Gly Arg Thr Arg Pro Gln Val Val
305                 310                 315                 320

Ser Leu Pro Asn Met Arg Val Gln Lys Cys Ser Cys Ala Ser Asp Gly
                325                 330                 335

Ala Leu Val Pro Arg Arg Leu Gln Pro
            340                 345
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<210> 11
<211> 345
<212> PRT
<213> Homo sapiens

<400> 11
Leu Thr Glu Glu Gln Leu Leu Gly Ser Leu Leu Arg Gln Leu Gln Leu
1 5 10 15

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

Pro Ala His Val Arg Ala Gln Tyr Val Val Leu Leu Arg Arg Ser His
35 40 45

Gly Asp Arg Ser Arg Gly Lys Arg Phe Ser Gln Ser Phe Arg Glu Val
50 55 60

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

Gly Met Glu Gln Arg Leu Pro Pro Asn Ser Glu Leu Val Gln Ala Val
85 90 95

Leu Arg Leu Phe Gln Glu Pro Val Pro Lys Ala Ala Leu His Arg His
100 105 110

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

Leu Arg Val Arg Asp Asp Gly Ser Asn Arg Thr Ser Leu Ile Asp Ser
130 135 140

Arg Leu Val Ser Val His Glu Ser Gly Trp Lys Ala Phe Asp Val Thr
145 150 155 160

Glu Ala Val Asn Phe Trp Gln Gln Leu Ser Arg Pro Arg Gln Pro Leu
165 170 175

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

Gly Ala His Lys Leu Val Arg Phe Ala Ser Gln Gly Ala Pro Ala Gly
195 200 205

Leu Gly Glu Pro Gln Leu Glu Leu His Thr Leu Asp Leu Arg Asp Tyr
210 215 220

Gly Ala Gln Gly Asp Cys Asp Pro Glu Ala Pro Met Thr Glu Gly Thr
225 230 235 240

Arg Cys Cys Arg Gln Glu Met Tyr Ile Asp Leu Gln Gly Met Lys Trp
245 250 255

Ala Lys Asn Trp Val Leu Glu Pro Pro Gly Phe Leu Ala Tyr Glu Cys
260 265 270

```
Val Gly Thr Cys Gln Gln Pro Pro Glu Ala Leu Ala Phe Asn Trp Pro
        275                 280                 285

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

Met Ile Val Ser Ile Lys Glu Gly Gly Arg Thr Arg Pro Gln Val Val
305                 310                 315                 320

Ser Leu Pro Asn Met Arg Val Gln Lys Cys Ser Cys Ala Ser Asp Gly
                325                 330                 335

Ala Leu Val Pro Arg Arg Leu Gln Pro
            340                 345
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<210> 12
<211> 279
<212> PRT
<213> Homo sapiens

<400> 12

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

Leu His Ser Glu Asp Ser Arg Phe Arg Glu Leu Arg Lys Arg Tyr Glu
            20                  25                  30

Asp Leu Leu Thr Arg Leu Arg Ala Asn Gln Ser Trp Glu Asp Ser Asn
        35                  40                  45

Thr Asp Leu Val Pro Ala Pro Ala Val Arg Ile Leu Thr Pro Glu Val
    50                  55                  60

Arg Leu Gly Ser Gly Gly His Leu His Leu Arg Ile Ser Arg Ala Ala
65                  70                  75                  80

Leu Pro Glu Gly Leu Pro Glu Ala Ser Arg Leu His Arg Ala Leu Phe
                85                  90                  95

Arg Leu Ser Pro Thr Ala Ser Arg Ser Trp Asp Val Thr Arg Pro Leu
            100                 105                 110

Arg Arg Gln Leu Ser Leu Ala Arg Pro Gln Ala Pro Ala Leu His Leu
        115                 120                 125

Arg Leu Ser Pro Pro Pro Ser Gln Ser Asp Gln Leu Leu Ala Glu Ser
    130                 135                 140

Ser Ser Ala Arg Pro Gln Leu Glu Leu His Leu Arg Pro Gln Ala Ala
145                 150                 155                 160
```

Arg Gly Arg Arg Arg Ala Arg Ala Arg Asn Gly Asp His Cys Pro Leu
165 170 175

Gly Pro Gly Arg Cys Cys Arg Leu His Thr Val Arg Ala Ser Leu Glu
180 185 190

Asp Leu Gly Trp Ala Asp Trp Val Leu Ser Pro Arg Glu Val Gln Val
195 200 205

Thr Met Cys Ile Gly Ala Cys Pro Ser Gln Phe Arg Ala Ala Asn Met
210 215 220

His Ala Gln Ile Lys Thr Ser Leu His Arg Leu Lys Pro Asp Thr Val
225 230 235 240

Pro Ala Pro Cys Cys Val Pro Ala Ser Tyr Asn Pro Met Val Leu Ile
245 250 255

Gln Lys Thr Asp Thr Gly Val Ser Leu Gln Thr Tyr Asp Asp Leu Leu
260 265 270

Ala Lys Asp Cys His Cys Ile
275

<210> 13
<211> 542
<212> PRT
<213> Homo sapiens

<400> 13
Leu Leu Gly Thr Glu Ala Leu Arg Ala Glu Glu Pro Ala Val Gly Thr
1 5 10 15

Ser Gly Leu Ile Phe Arg Glu Asp Leu Asp Trp Pro Pro Gly Ile Pro
20 25 30

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

Ser Ser Pro Leu Arg Val Val Gly Ala Leu Ser Ala Tyr Glu Gln Ala
50 55 60

Phe Leu Gly Ala Val Gln Arg Ala Arg Trp Gly Pro Arg Asp Leu Ala
65 70 75 80

Thr Phe Gly Val Cys Asn Thr Gly Asp Arg Gln Ala Ala Leu Pro Ser
85 90 95

Leu Arg Arg Leu Gly Ala Trp Leu Arg Asp Pro Gly Gly Gln Arg Leu
100 105 110

Val Val Leu His Leu Glu Glu Val Thr Trp Glu Pro Thr Pro Ser Leu
115 120 125

```
Arg Phe Gln Glu Pro Pro Pro Gly Gly Ala Gly Pro Pro Glu Leu Ala
    130                 135                 140

Leu Leu Val Leu Tyr Pro Gly Pro Gly Pro Glu Val Thr Val Thr Arg
145                 150                 155                 160

Ala Gly Leu Pro Gly Ala Gln Ser Leu Cys Pro Ser Arg Asp Thr Arg
                165                 170                 175

Tyr Leu Val Leu Ala Val Asp Arg Pro Ala Gly Ala Trp Arg Gly Ser
            180                 185                 190

Gly Leu Ala Leu Thr Leu Gln Pro Arg Gly Glu Asp Ser Arg Leu Ser
        195                 200                 205

Thr Ala Arg Leu Gln Ala Leu Leu Phe Gly Asp Asp His Arg Cys Phe
    210                 215                 220

Thr Arg Met Thr Pro Ala Leu Leu Leu Leu Pro Arg Ser Glu Pro Ala
225                 230                 235                 240

Pro Leu Pro Ala His Gly Gln Leu Asp Thr Val Pro Phe Pro Pro Pro
                245                 250                 255

Arg Pro Ser Ala Glu Leu Glu Glu Ser Pro Pro Ser Ala Asp Pro Phe
            260                 265                 270

Leu Glu Thr Leu Thr Arg Leu Val Arg Ala Leu Arg Val Pro Pro Ala
        275                 280                 285

Arg Ala Ser Ala Pro Arg Leu Ala Leu Asp Pro Asp Ala Leu Ala Gly
    290                 295                 300

Phe Pro Gln Gly Leu Val Asn Leu Ser Asp Pro Ala Ala Leu Glu Arg
305                 310                 315                 320

Leu Leu Asp Gly Glu Glu Pro Leu Leu Leu Leu Leu Arg Pro Thr Ala
                325                 330                 335

Ala Thr Thr Gly Asp Pro Ala Pro Leu His Asp Pro Thr Ser Ala Pro
            340                 345                 350

Trp Ala Thr Ala Leu Ala Arg Arg Val Ala Ala Glu Leu Gln Ala Ala
        355                 360                 365

Ala Ala Glu Leu Arg Ser Leu Pro Gly Leu Pro Pro Ala Thr Ala Pro
    370                 375                 380

Leu Leu Ala Arg Leu Leu Ala Leu Cys Pro Gly Gly Pro Gly Gly Leu
385                 390                 395                 400
```

```
Gly Asp Pro Leu Arg Ala Leu Leu Leu Leu Lys Ala Leu Gln Gly Leu
                405                 410                 415

Arg Val Glu Trp Arg Gly Arg Asp Pro Arg Gly Pro Gly Arg Ala Gln
            420                 425                 430

Arg Ser Ala Gly Ala Thr Ala Ala Asp Gly Pro Cys Ala Leu Arg Glu
        435                 440                 445

Leu Ser Val Asp Leu Arg Ala Glu Arg Ser Val Leu Ile Pro Glu Thr
    450                 455                 460

Tyr Gln Ala Asn Asn Cys Gln Gly Val Cys Gly Trp Pro Gln Ser Asp
465                 470                 475                 480

Arg Asn Pro Arg Tyr Gly Asn His Val Val Leu Leu Leu Lys Met Gln
                485                 490                 495

Val Arg Gly Ala Ala Leu Ala Arg Pro Pro Cys Cys Val Pro Thr Ala
            500                 505                 510

Tyr Ala Gly Lys Leu Leu Ile Ser Leu Ser Glu Glu Arg Ile Ser Ala
        515                 520                 525

His His Val Pro Asn Met Val Ala Thr Glu Cys Gly Cys Arg
    530                 535                 540
```

<210> 14
<211> 348
<212> PRT
<213> Homo sapiens

<400> 14

```
Cys Gln Gly Leu Glu Leu Ala Arg Glu Leu Val Leu Ala Lys Val Arg
1               5                   10                  15

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

Gly Asp Pro Gly Val Arg Arg Leu Pro Arg Arg His Ala Leu Gly Gly
        35                  40                  45

Phe Thr His Arg Gly Ser Glu Pro Glu Glu Glu Glu Asp Val Ser Gln
    50                  55                  60

Ala Ile Leu Phe Pro Ala Thr Asp Ala Ser Cys Glu Asp Lys Ser Ala
65                  70                  75                  80

Ala Arg Gly Leu Ala Gln Glu Ala Glu Glu Gly Leu Phe Arg Tyr Met
                85                  90                  95
```

```
Phe Arg Pro Ser Gln His Thr Arg Ser Arg Gln Val Thr Ser Ala Gln
            100                 105                 110

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

Ser Ser Glu Pro Leu Leu Gly Leu Leu Ala Leu Ser Pro Gly Gly Pro
    130                 135                 140

Val Ala Val Pro Met Ser Leu Gly His Ala Pro Pro His Trp Ala Val
145                 150                 155                 160

Leu His Leu Ala Thr Ser Ala Leu Ser Leu Leu Thr His Pro Val Leu
                165                 170                 175

Val Leu Leu Leu Arg Cys Pro Leu Cys Thr Cys Ser Ala Arg Pro Glu
            180                 185                 190

Ala Thr Pro Phe Leu Val Ala His Thr Arg Thr Arg Pro Pro Ser Gly
        195                 200                 205

Gly Glu Arg Ala Arg Arg Ser Thr Pro Leu Met Ser Trp Pro Trp Ser
    210                 215                 220

Pro Ser Ala Leu Arg Leu Leu Gln Arg Pro Pro Glu Glu Pro Ala Ala
225                 230                 235                 240

His Ala Asn Cys His Arg Val Ala Leu Asn Ile Ser Phe Gln Glu Leu
                245                 250                 255

Gly Trp Glu Arg Trp Ile Val Tyr Pro Pro Ser Phe Ile Phe His Tyr
            260                 265                 270

Cys His Gly Gly Cys Gly Leu His Ile Pro Pro Asn Leu Ser Leu Pro
        275                 280                 285

Val Pro Gly Ala Pro Pro Thr Pro Ala Gln Pro Tyr Ser Leu Leu Pro
    290                 295                 300

Gly Ala Gln Pro Cys Cys Ala Ala Leu Pro Gly Thr Met Arg Pro Leu
305                 310                 315                 320

His Val Arg Thr Thr Ser Asp Gly Gly Tyr Ser Phe Lys Tyr Glu Thr
                325                 330                 335

Val Pro Asn Leu Leu Thr Gln His Cys Ala Cys Ile
            340                 345
```

<210> 15
<211> 343
<212> PRT
<213> Homo sapiens

<400> 15

```
Pro Val Pro Pro Gly Pro Ala Ala Ala Leu Leu Gln Ala Leu Gly Leu
1               5                  10                  15

Arg Asp Glu Pro Gln Gly Ala Pro Arg Leu Arg Pro Val Pro Pro Val
            20                  25                  30

Met Trp Arg Leu Phe Arg Arg Arg Asp Pro Gln Glu Thr Arg Ser Gly
        35                  40                  45

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

Glu Leu Gly Val Ala Gly Asn Ile Val Arg His Ile Pro Asp Arg Gly
65                  70                  75                  80

Ala Pro Thr Arg Ala Ser Glu Pro Ala Ser Ala Ala Gly His Cys Pro
                85                  90                  95

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

Pro Ser Arg Ala Arg Leu Glu Leu Arg Phe Ala Ala Ala Ala Ala Ala
        115                 120                 125

Ala Pro Glu Gly Gly Trp Glu Leu Ser Val Ala Gln Ala Gly Gln Gly
    130                 135                 140

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

Leu Gly Pro Pro Val Arg Ala Glu Leu Leu Gly Ala Ala Trp Ala Arg
                165                 170                 175

Asn Ala Ser Trp Pro Arg Ser Leu Arg Leu Ala Leu Ala Leu Arg Pro
            180                 185                 190

Arg Ala Pro Ala Ala Cys Ala Arg Leu Ala Glu Ala Ser Leu Leu Leu
        195                 200                 205

Val Thr Leu Asp Pro Arg Leu Cys His Pro Leu Ala Arg Pro Arg Arg
    210                 215                 220

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

Arg Arg Leu Tyr Val Ser Phe Arg Glu Val Gly Trp His Arg Trp Val
                245                 250                 255

Ile Ala Pro Arg Gly Phe Leu Ala Asn Tyr Cys Gln Gly Gln Cys Ala
            260                 265                 270
```

```
Leu Pro Val Ala Leu Ser Gly Ser Gly Gly Pro Pro Ala Leu Asn His
        275                 280                 285

Ala Val Leu Arg Ala Leu Met His Ala Ala Ala Pro Gly Ala Ala Asp
    290                 295                 300

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

Phe Asp Asn Ser Asp Asn Val Val Leu Arg Gln Tyr Glu Asp Met Val
                325                 330                 335

Val Asp Glu Cys Gly Cys Arg
            340
```

<210> 16
<211> 340
<212> PRT
<213> Homo sapiens

<400> 16

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

Pro Gln Lys Phe Gln Pro Val Pro Tyr Ile Leu Lys Lys Ile Phe Gln
            20                  25                  30

Asp Arg Glu Ala Ala Ala Thr Thr Gly Val Ser Arg Asp Leu Cys Tyr
        35                  40                  45

Val Lys Glu Leu Gly Val Arg Gly Asn Val Leu Arg Phe Leu Pro Asp
    50                  55                  60

Gln Gly Phe Phe Leu Tyr Pro Lys Lys Ile Ser Gln Ala Ser Ser Cys
65                  70                  75                  80

Leu Gln Lys Leu Leu Tyr Phe Asn Leu Ser Ala Ile Lys Glu Arg Glu
                85                  90                  95

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

Tyr Asn Leu Gly Pro Glu Leu Glu Leu Ala Leu Phe Leu Val Gln Glu
        115                 120                 125

Pro His Val Trp Gly Gln Thr Thr Pro Lys Pro Gly Lys Met Phe Val
    130                 135                 140

Leu Arg Ser Val Pro Trp Pro Gln Gly Ala Val His Phe Asn Leu Leu
145                 150                 155                 160
```

Asp Val Ala Lys Asp Trp Asn Asp Asn Pro Arg Lys Asn Phe Gly Leu
165 170 175

Phe Leu Glu Ile Leu Val Lys Glu Asp Arg Asp Ser Gly Val Asn Phe
180 185 190

Gln Pro Glu Asp Thr Cys Ala Arg Leu Arg Cys Ser Leu His Ala Ser
195 200 205

Leu Leu Val Val Thr Leu Asn Pro Asp Gln Cys His Pro Ser Arg Lys
210 215 220

Arg Arg Ala Ala Ile Pro Val Pro Lys Leu Ser Cys Lys Asn Leu Cys
225 230 235 240

His Arg His Gln Leu Phe Ile Asn Phe Arg Asp Leu Gly Trp His Lys
245 250 255

Trp Ile Ile Ala Pro Lys Gly Phe Met Ala Asn Tyr Cys His Gly Glu
260 265 270

Cys Pro Phe Ser Leu Thr Ile Ser Leu Asn Ser Ser Asn Tyr Ala Phe
275 280 285

Met Gln Ala Leu Met His Ala Val Asp Pro Glu Ile Pro Gln Ala Val
290 295 300

Cys Ile Pro Thr Lys Leu Ser Pro Ile Ser Met Leu Tyr Gln Asp Asn
305 310 315 320

Asn Asp Asn Val Ile Leu Arg His Tyr Glu Asp Met Val Val Asp Glu
325 330 335

Cys Gly Cys Gly
340

<210> 17
<211> 474
<212> PRT
<213> Homo sapiens

<400> 17
Ala Pro Asp Leu Gly Gln Arg Pro Gln Gly Thr Arg Pro Gly Leu Ala
1 5 10 15

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

Pro Gly Gly His Ser Tyr Gly Gly Gly Ala Thr Asn Ala Asn Ala Arg
35 40 45

Ala Lys Gly Gly Thr Gly Gln Thr Gly Gly Leu Thr Gln Pro Lys Lys
50 55 60

```
Asp Glu Pro Lys Lys Leu Pro Pro Arg Pro Gly Gly Pro Glu Pro Lys
65                  70                  75                  80

Pro Gly His Pro Pro Gln Thr Arg Gln Ala Thr Ala Arg Thr Val Thr
                85                  90                  95

Pro Lys Gly Gln Leu Pro Gly Gly Lys Ala Pro Pro Lys Ala Gly Ser
            100                 105                 110

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

Arg Glu Pro Lys Glu Pro Phe Arg Pro Pro Pro Ile Thr Pro His Glu
    130                 135                 140

Tyr Met Leu Ser Leu Tyr Arg Thr Leu Ser Asp Ala Asp Arg Lys Gly
145                 150                 155                 160

Gly Asn Ser Ser Val Lys Leu Glu Ala Gly Leu Ala Asn Thr Ile Thr
                165                 170                 175

Ser Phe Ile Asp Lys Gly Gln Asp Asp Arg Gly Pro Val Val Arg Lys
            180                 185                 190

Gln Arg Tyr Val Phe Asp Ile Ser Ala Leu Glu Lys Asp Gly Leu Leu
        195                 200                 205

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

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

Cys Pro Ser Gly Arg Gln Pro Ala Ser Leu Leu Asp Val Arg Ser Val
                245                 250                 255

Pro Gly Leu Asp Gly Ser Gly Trp Glu Val Phe Asp Ile Trp Lys Leu
            260                 265                 270

Phe Arg Asn Phe Lys Asn Ser Ala Gln Leu Cys Leu Glu Leu Glu Ala
        275                 280                 285

Trp Glu Arg Gly Arg Ala Val Asp Leu Arg Gly Leu Gly Phe Asp Arg
    290                 295                 300

Ala Ala Arg Gln Val His Glu Lys Ala Leu Phe Leu Val Phe Gly Arg
305                 310                 315                 320

Thr Lys Lys Arg Asp Leu Phe Phe Asn Glu Ile Lys Ala Arg Ser Gly
                325                 330                 335
```

```
Gln Asp Asp Lys Thr Val Tyr Glu Tyr Leu Phe Ser Gln Arg Arg Lys
            340                 345                 350

Arg Arg Ala Pro Leu Ala Thr Arg Gln Gly Lys Arg Pro Ser Lys Asn
        355                 360                 365

Leu Lys Ala Arg Cys Ser Arg Lys Ala Leu His Val Asn Phe Lys Asp
    370                 375                 380

Met Gly Trp Asp Asp Trp Ile Ile Ala Pro Leu Glu Tyr Glu Ala Phe
385                 390                 395                 400

His Cys Glu Gly Leu Cys Glu Phe Pro Leu Arg Ser His Leu Glu Pro
                405                 410                 415

Thr Asn His Ala Val Ile Gln Thr Leu Met Asn Ser Met Asp Pro Glu
            420                 425                 430

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

Ile Leu Phe Ile Asp Ser Ala Asn Asn Val Val Tyr Lys Gln Tyr Glu
    450                 455                 460

Asp Met Val Val Glu Ser Cys Gly Cys Arg
465                 470
```

<210> 18
<211> 433
<212> PRT
<213> Homo sapiens

<400> 18

```
Phe Gln Gln Ala Ser Ile Ser Ser Ser Ser Ser Ser Ala Glu Leu Gly
1               5                   10                  15

Ser Thr Lys Gly Met Arg Ser Arg Lys Glu Gly Lys Met Gln Arg Ala
            20                  25                  30

Pro Arg Asp Ser Asp Ala Gly Arg Glu Gly Gln Glu Pro Gln Pro Arg
        35                  40                  45

Pro Gln Asp Glu Pro Arg Ala Gln Gln Pro Arg Ala Gln Glu Pro Pro
    50                  55                  60

Gly Arg Gly Pro Arg Val Val Pro His Glu Tyr Met Leu Ser Ile Tyr
65                  70                  75                  80

Arg Thr Tyr Ser Ile Ala Glu Lys Leu Gly Ile Asn Ala Ser Phe Phe
                85                  90                  95
```

```
Gln Ser Ser Lys Ser Ala Asn Thr Ile Thr Ser Phe Val Asp Arg Gly
            100                 105                 110

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

Asp Val Ser Met Leu Ser Asp Lys Glu Glu Leu Val Gly Ala Glu Leu
    130                 135                 140

Arg Leu Phe Arg Gln Ala Pro Ser Ala Pro Trp Gly Pro Pro Ala Gly
145                 150                 155                 160

Pro Leu His Val Gln Leu Phe Pro Cys Leu Ser Pro Leu Leu Leu Asp
                165                 170                 175

Ala Arg Thr Leu Asp Pro Gln Gly Ala Pro Pro Ala Gly Trp Glu Val
            180                 185                 190

Phe Asp Val Trp Gln Gly Leu Arg His Gln Pro Trp Lys Gln Leu Cys
        195                 200                 205

Leu Glu Leu Arg Ala Ala Trp Gly Glu Leu Asp Ala Gly Glu Ala Glu
    210                 215                 220

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

Leu Gly Phe Gly Arg Arg Val Arg Pro Pro Gln Glu Arg Ala Leu Leu
                245                 250                 255

Val Val Phe Thr Arg Ser Gln Arg Lys Asn Leu Phe Ala Glu Met Arg
            260                 265                 270

Glu Gln Leu Gly Ser Ala Glu Ala Ala Gly Pro Gly Ala Gly Ala Glu
        275                 280                 285

Gly Ser Trp Pro Pro Pro Ser Gly Ala Pro Asp Ala Arg Pro Trp Leu
    290                 295                 300

Pro Ser Pro Gly Arg Arg Arg Arg Arg Thr Ala Phe Ala Ser Arg His
305                 310                 315                 320

Gly Lys Arg His Gly Lys Lys Ser Arg Leu Arg Cys Ser Lys Lys Pro
                325                 330                 335

Leu His Val Asn Phe Lys Glu Leu Gly Trp Asp Asp Trp Ile Ile Ala
            340                 345                 350

Pro Leu Glu Tyr Glu Ala Tyr His Cys Glu Gly Val Cys Asp Phe Pro
        355                 360                 365
```

Leu Arg Ser His Leu Glu Pro Thr Asn His Ala Ile Ile Gln Thr Leu
370 375 380

Met Asn Ser Met Asp Pro Gly Ser Thr Pro Pro Ser Cys Cys Val Pro
385 390 395 400

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

Val Val Tyr Lys Gln Tyr Glu Asp Met Val Val Glu Ser Cys Gly Cys
420 425 430

Arg

<210> 19
<211> 431
<212> PRT
<213> Homo sapiens

<400> 19
Arg Asp Gly Leu Glu Ala Ala Ala Val Leu Arg Ala Ala Gly Ala Gly
1 5 10 15

Pro Val Arg Ser Pro Gly Gly Gly Gly Gly Gly Gly Gly Gly Gly Arg
20 25 30

Thr Leu Ala Gln Ala Ala Gly Ala Ala Ala Val Pro Ala Ala Ala Val
35 40 45

Pro Arg Ala Arg Ala Ala Arg Arg Ala Ala Gly Ser Gly Phe Arg Asn
50 55 60

Gly Ser Val Val Pro His His Phe Met Met Ser Leu Tyr Arg Ser Leu
65 70 75 80

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

Gly Arg Ala Asp Thr Ile Thr Gly Phe Thr Asp Gln Ala Thr Gln Asp
100 105 110

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

Leu Asn Asp Ala Asp Glu Val Val Gly Ala Glu Leu Arg Val Leu Arg
130 135 140

Arg Gly Ser Pro Glu Ser Gly Pro Gly Ser Trp Thr Ser Pro Pro Leu
145 150 155 160

Leu Leu Leu Ser Thr Cys Pro Gly Ala Ala Arg Ala Pro Arg Leu Leu
165 170 175

```
Tyr Ser Arg Ala Ala Glu Pro Leu Val Gly Gln Arg Trp Glu Ala Phe
            180                 185                 190

Asp Val Ala Asp Ala Met Arg Arg His Arg Arg Glu Pro Arg Pro Pro
        195                 200                 205

Arg Ala Phe Cys Leu Leu Leu Arg Ala Val Ala Gly Pro Val Pro Ser
    210                 215                 220

Pro Leu Ala Leu Arg Arg Leu Gly Phe Gly Trp Pro Gly Gly Gly Gly
225                 230                 235                 240

Ser Ala Ala Glu Glu Arg Ala Val Leu Val Val Ser Ser Arg Thr Gln
                245                 250                 255

Arg Lys Glu Ser Leu Phe Arg Glu Ile Arg Ala Gln Ala Arg Ala Leu
            260                 265                 270

Gly Ala Ala Leu Ala Ser Glu Pro Leu Pro Asp Pro Gly Thr Gly Thr
        275                 280                 285

Ala Ser Pro Arg Ala Val Ile Gly Gly Arg Arg Arg Arg Arg Thr Ala
    290                 295                 300

Leu Ala Gly Thr Arg Thr Ala Gln Gly Ser Gly Gly Gly Ala Gly Arg
305                 310                 315                 320

Gly His Gly Arg Arg Gly Arg Ser Arg Cys Ser Arg Lys Pro Leu His
                325                 330                 335

Val Asp Phe Lys Glu Leu Gly Trp Asp Asp Trp Ile Ile Ala Pro Leu
            340                 345                 350

Asp Tyr Glu Ala Tyr His Cys Glu Gly Leu Cys Asp Phe Pro Leu Arg
        355                 360                 365

Ser His Leu Glu Pro Thr Asn His Ala Ile Ile Gln Thr Leu Leu Asn
    370                 375                 380

Ser Met Ala Pro Asp Ala Ala Pro Ala Ser Cys Cys Val Pro Ala Arg
385                 390                 395                 400

Leu Ser Pro Ile Ser Ile Leu Tyr Ile Asp Ala Ala Asn Asn Val Val
                405                 410                 415

Tyr Lys Gln Tyr Glu Asp Met Val Val Glu Ala Cys Gly Cys Arg
            420                 425                 430
```

<210> 20
<211> 403

<212> PRT
<213> Homo sapiens

<400> 20

```
Ser Pro Ile Met Asn Leu Glu Gln Ser Pro Leu Glu Glu Asp Met Ser
1               5                  10                  15

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

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

Asp Ile Pro Thr Gln Asp Ser Ala Lys Val Asp Pro Pro Glu Tyr Met
    50                  55                  60

Leu Glu Leu Tyr Asn Lys Phe Ala Thr Asp Arg Thr Ser Met Pro Ser
65                  70                  75                  80

Ala Asn Ile Ile Arg Ser Phe Lys Asn Glu Asp Leu Phe Ser Gln Pro
                85                  90                  95

Val Ser Phe Asn Gly Leu Arg Lys Tyr Pro Leu Leu Phe Asn Val Ser
            100                 105                 110

Ile Pro His His Glu Glu Val Ile Met Ala Glu Leu Arg Leu Tyr Thr
        115                 120                 125

Leu Val Gln Arg Asp Arg Met Ile Tyr Asp Gly Val Asp Arg Lys Ile
    130                 135                 140

Thr Ile Phe Glu Val Leu Glu Ser Lys Gly Asp Asn Glu Gly Glu Arg
145                 150                 155                 160

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

Trp Glu Thr Phe Asp Val Thr Asp Ala Ile Arg Arg Trp Gln Lys Ser
            180                 185                 190

Gly Ser Ser Thr His Gln Leu Glu Val His Ile Glu Ser Lys His Asp
        195                 200                 205

Glu Ala Glu Asp Ala Ser Ser Gly Arg Leu Glu Ile Asp Thr Ser Ala
    210                 215                 220

Gln Asn Lys His Asn Pro Leu Leu Ile Val Phe Ser Asp Asp Gln Ser
225                 230                 235                 240

Ser Asp Lys Glu Arg Lys Glu Glu Leu Asn Glu Met Ile Ser His Glu
                245                 250                 255
```

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

Pro Gly Glu Glu Ala Leu Leu Gln Met Arg Ser Asn Ile Ile Tyr Asp
        275                 280                 285

Ser Thr Ala Arg Ile Arg Arg Asn Ala Lys Gly Asn Tyr Cys Lys Arg
    290                 295                 300

Thr Pro Leu Tyr Ile Asp Phe Lys Glu Ile Gly Trp Asp Ser Trp Ile
305                 310                 315                 320

Ile Ala Pro Pro Gly Tyr Glu Ala Tyr Glu Cys Arg Gly Val Cys Asn
                325                 330                 335

Tyr Pro Leu Ala Glu His Leu Thr Pro Thr Lys His Ala Ile Ile Gln
            340                 345                 350

Ala Leu Val His Leu Lys Asn Ser Gln Lys Ala Ser Lys Ala Cys Cys
        355                 360                 365

Val Pro Thr Lys Leu Glu Pro Ile Ser Ile Leu Tyr Leu Asp Lys Gly
    370                 375                 380

Val Val Thr Tyr Lys Phe Lys Tyr Glu Gly Met Ala Val Ser Glu Cys
385                 390                 395                 400

Gly Cys Arg
```

<210> 21
<211> 407
<212> PRT
<213> Homo sapiens

<400> 21

```
Lys Pro Leu Gln Ser Trp Gly Arg Gly Ser Ala Gly Gly Asn Ala His
1               5                   10                  15

Ser Pro Leu Gly Val Pro Gly Gly Gly Leu Pro Glu His Thr Phe Asn
            20                  25                  30

Leu Lys Met Phe Leu Glu Asn Val Lys Val Asp Phe Leu Arg Ser Leu
        35                  40                  45

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

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

Thr Pro Ala Ser Asn Ile Val Arg Ser Phe Ser Met Glu Asp Ala Ile
                85                  90                  95
```

```
Ser Ile Thr Ala Thr Glu Asp Phe Pro Phe Gln Lys His Ile Leu Leu
            100                 105                 110

Phe Asn Ile Ser Ile Pro Arg His Glu Gln Ile Thr Arg Ala Glu Leu
        115                 120                 125

Arg Leu Tyr Val Ser Cys Gln Asn His Val Asp Pro Ser His Asp Leu
    130                 135                 140

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

Asp Ser Ala Thr Glu Thr Lys Thr Phe Leu Val Ser Gln Asp Ile Gln
                165                 170                 175

Asp Glu Gly Trp Glu Thr Leu Glu Val Ser Ser Ala Val Lys Arg Trp
            180                 185                 190

Val Arg Ser Asp Ser Thr Lys Ser Lys Asn Lys Leu Glu Val Thr Val
        195                 200                 205

Glu Ser His Arg Lys Gly Cys Asp Thr Leu Asp Ile Ser Val Pro Pro
    210                 215                 220

Gly Ser Arg Asn Leu Pro Phe Phe Val Val Phe Ser Asn Asp His Ser
225                 230                 235                 240

Ser Gly Thr Lys Glu Thr Arg Leu Glu Leu Arg Glu Met Ile Ser His
                245                 250                 255

Glu Gln Glu Ser Val Leu Lys Lys Leu Ser Lys Asp Gly Ser Thr Glu
            260                 265                 270

Ala Gly Glu Ser Ser His Glu Glu Asp Thr Asp Gly His Val Ala Ala
        275                 280                 285

Gly Ser Thr Leu Ala Arg Arg Lys Arg Ser Ala Gly Ala Gly Ser His
    290                 295                 300

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

Ser Trp Ile Ile Ala Pro Lys Glu Tyr Glu Ala Tyr Glu Cys Lys Gly
                325                 330                 335

Gly Cys Phe Phe Pro Leu Ala Asp Asp Val Thr Pro Thr Lys His Ala
            340                 345                 350

Ile Val Gln Thr Leu Val His Leu Lys Phe Pro Thr Lys Val Gly Lys
        355                 360                 365
```

Ala Cys Cys Val Pro Thr Lys Leu Ser Pro Ile Ser Val Leu Tyr Lys
370 375 380

Asp Asp Met Gly Val Pro Thr Leu Lys Tyr His Tyr Glu Gly Met Ser
385 390 395 400

Val Ala Glu Cys Gly Cys Arg
405

<210> 22
<211> 325
<212> PRT
<213> Homo sapiens

<400> 22
Thr Val Ala Thr Ala Leu Leu Arg Thr Arg Gly Gln Pro Ser Ser Pro
1 5 10 15

Ser Pro Leu Ala Tyr Met Leu Ser Leu Tyr Arg Asp Pro Leu Pro Arg
20 25 30

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

Gln Asn Trp Thr Phe Ala Phe Asp Phe Ser Phe Leu Ser Gln Gln Glu
50 55 60

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

Leu Pro Thr Glu Gly Ser Leu Ala Ile Glu Ile Phe His Gln Pro Lys
85 90 95

Pro Asp Thr Glu Gln Ala Ser Asp Ser Cys Leu Glu Arg Phe Gln Met
100 105 110

Asp Leu Phe Thr Val Thr Leu Ser Gln Val Thr Phe Ser Leu Gly Ser
115 120 125

Met Val Leu Glu Val Thr Arg Pro Leu Ser Lys Trp Leu Lys Arg Pro
130 135 140

Gly Ala Leu Glu Lys Gln Met Ser Arg Val Ala Gly Glu Cys Trp Pro
145 150 155 160

Arg Pro Pro Thr Pro Pro Ala Thr Asn Val Leu Leu Met Leu Tyr Ser
165 170 175

Asn Leu Ser Gln Glu Gln Arg Gln Leu Gly Gly Ser Thr Leu Leu Trp
180 185 190

```
Glu Ala Glu Ser Ser Trp Arg Ala Gln Glu Gly Gln Leu Ser Trp Glu
        195                 200                 205

Trp Gly Lys Arg His Arg Arg His His Leu Pro Asp Arg Ser Gln Leu
    210                 215                 220

Cys Arg Lys Val Lys Phe Gln Val Asp Phe Asn Leu Ile Gly Trp Gly
225                 230                 235                 240

Ser Trp Ile Ile Tyr Pro Lys Gln Tyr Asn Ala Tyr Arg Cys Glu Gly
                245                 250                 255

Glu Cys Pro Asn Pro Val Gly Glu Glu Phe His Pro Thr Asn His Ala
            260                 265                 270

Tyr Ile Gln Ser Leu Leu Lys Arg Tyr Gln Pro His Arg Val Pro Ser
        275                 280                 285

Thr Cys Cys Ala Pro Val Lys Thr Lys Pro Leu Ser Met Leu Tyr Val
    290                 295                 300

Asp Asn Gly Arg Val Leu Leu Asp His His Lys Asp Met Ile Val Glu
305                 310                 315                 320

Glu Cys Gly Cys Leu
                325


<210> 23
<211> 373
<212> PRT
<213> Homo sapiens

<400> 23
Leu Val Pro Glu Leu Gly Arg Arg Lys Phe Ala Ala Ala Ser Ser Gly
1               5                   10                  15

Arg Pro Ser Ser Gln Pro Ser Asp Glu Val Leu Ser Glu Phe Glu Leu
            20                  25                  30

Arg Leu Leu Ser Met Phe Gly Leu Lys Gln Arg Pro Thr Pro Ser Arg
        35                  40                  45

Asp Ala Val Val Pro Pro Tyr Met Leu Asp Leu Tyr Arg Arg His Ser
    50                  55                  60

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

Ser Arg Ala Asn Thr Val Arg Ser Phe His His Glu Glu Ser Leu Glu
                85                  90                  95

Glu Leu Pro Glu Thr Ser Gly Lys Thr Thr Arg Arg Phe Phe Phe Asn
            100                 105                 110
```

```
Leu Ser Ser Ile Pro Thr Glu Glu Phe Ile Thr Ser Ala Glu Leu Gln
        115                 120                 125

Val Phe Arg Glu Gln Met Gln Asp Ala Leu Gly Asn Asn Ser Ser Phe
    130                 135                 140

His His Arg Ile Asn Ile Tyr Glu Ile Ile Lys Pro Ala Thr Ala Asn
145                 150                 155                 160

Ser Lys Phe Pro Val Thr Arg Leu Leu Asp Thr Arg Leu Val Asn Gln
                165                 170                 175

Asn Ala Ser Arg Trp Glu Ser Phe Asp Val Thr Pro Ala Val Met Arg
            180                 185                 190

Trp Thr Ala Gln Gly His Ala Asn His Gly Phe Val Val Glu Val Ala
        195                 200                 205

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

Arg Ser Leu His Gln Asp Glu His Ser Trp Ser Gln Ile Arg Pro Leu
225                 230                 235                 240

Leu Val Thr Phe Gly His Asp Gly Lys Gly His Pro Leu His Lys Arg
                245                 250                 255

Glu Lys Arg Gln Ala Lys His Lys Gln Arg Lys Arg Leu Lys Ser Ser
            260                 265                 270

Cys Lys Arg His Pro Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn
        275                 280                 285

Asp Trp Ile Val Ala Pro Pro Gly Tyr His Ala Phe Tyr Cys His Gly
    290                 295                 300

Glu Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala
305                 310                 315                 320

Ile Val Gln Thr Leu Val Asn Ser Val Asn Ser Lys Ile Pro Lys Ala
                325                 330                 335

Cys Cys Val Pro Thr Glu Leu Ser Ala Ile Ser Met Leu Tyr Leu Asp
            340                 345                 350

Glu Asn Glu Lys Val Val Leu Lys Asn Tyr Gln Asp Met Val Val Glu
        355                 360                 365

Gly Cys Gly Cys Arg
    370
```

<210> 24
<211> 389
<212> PRT
<213> Homo sapiens

<400> 24

```
Gly Ala Ser His Ala Ser Leu Ile Pro Glu Thr Gly Lys Lys Lys Val
1               5                  10                  15

Ala Glu Ile Gln Gly His Ala Gly Gly Arg Arg Ser Gly Gln Ser His
            20                  25                  30

Glu Leu Leu Arg Asp Phe Glu Ala Thr Leu Leu Gln Met Phe Gly Leu
        35                  40                  45

Arg Arg Arg Pro Gln Pro Ser Lys Ser Ala Val Ile Pro Asp Tyr Met
    50                  55                  60

Arg Asp Leu Tyr Arg Leu Gln Ser Gly Glu Glu Glu Glu Gln Ile
65                  70                  75                  80

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

Thr Val Arg Ser Phe His His Glu Glu His Leu Glu Asn Ile Pro Gly
            100                 105                 110

Thr Ser Glu Asn Ser Ala Phe Arg Phe Leu Phe Asn Leu Ser Ser Ile
        115                 120                 125

Pro Glu Asn Glu Val Ile Ser Ser Ala Glu Leu Arg Leu Phe Arg Glu
    130                 135                 140

Gln Val Asp Gln Gly Pro Asp Trp Glu Arg Gly Phe His Arg Ile Asn
145                 150                 155                 160

Ile Tyr Glu Val Met Lys Pro Pro Ala Glu Val Val Pro Gly His Leu
                165                 170                 175

Ile Thr Arg Leu Leu Asp Thr Arg Leu Val His His Asn Val Thr Arg
            180                 185                 190

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

Lys Gln Pro Asn Tyr Gly Leu Ala Ile Glu Val Thr His Leu His Gln
    210                 215                 220

Thr Arg Thr His Gln Gly Gln His Val Arg Ile Ser Arg Ser Leu Pro
225                 230                 235                 240
```

```
Gln Gly Ser Gly Asn Trp Ala Gln Leu Arg Pro Leu Leu Val Thr Phe
               245                 250                 255

Gly His Asp Gly Arg Gly His Ala Leu Thr Arg Arg Arg Arg Ala Lys
           260                 265                 270

Arg Ser Pro Lys His His Ser Gln Arg Ala Arg Lys Lys Asn Lys Asn
       275                 280                 285

Cys Arg Arg His Ser Leu Tyr Val Asp Phe Ser Asp Val Gly Trp Asn
   290                 295                 300

Asp Trp Ile Val Ala Pro Pro Gly Tyr Gln Ala Phe Tyr Cys His Gly
305                 310                 315                 320

Asp Cys Pro Phe Pro Leu Ala Asp His Leu Asn Ser Thr Asn His Ala
               325                 330                 335

Ile Val Gln Thr Leu Val Asn Ser Val Asn Ser Ser Ile Pro Lys Ala
           340                 345                 350

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

Glu Tyr Asp Lys Val Val Leu Lys Asn Tyr Gln Glu Met Val Val Glu
   370                 375                 380

Gly Cys Gly Cys Arg
385
```

<210> 25
<211> 424
<212> PRT
<213> Homo sapiens

<400> 25

```
Asp Asn His Val His Ser Ser Phe Ile Tyr Arg Arg Leu Arg Asn His
1               5                   10                  15

Glu Arg Arg Glu Ile Gln Arg Glu Ile Leu Ser Ile Leu Gly Leu Pro
            20                  25                  30

His Arg Pro Arg Pro Phe Ser Pro Gly Lys Gln Ala Ser Ser Ala Pro
        35                  40                  45

Leu Phe Met Leu Asp Leu Tyr Asn Ala Met Thr Asn Glu Glu Asn Pro
    50                  55                  60

Glu Glu Ser Glu Tyr Ser Val Arg Ala Ser Leu Ala Glu Glu Thr Arg
65                  70                  75                  80

Gly Ala Arg Lys Gly Tyr Pro Ala Ser Pro Asn Gly Tyr Pro Arg Arg
                85                  90                  95
```

```
Ile Gln Leu Ser Arg Thr Thr Pro Leu Thr Thr Gln Ser Pro Pro Leu
            100                 105                 110

Ala Ser Leu His Asp Thr Asn Phe Leu Asn Asp Ala Asp Met Val Met
        115                 120                 125

Ser Phe Val Asn Leu Val Glu Arg Asp Lys Asp Phe Ser His Gln Arg
    130                 135                 140

Arg His Tyr Lys Glu Phe Arg Phe Asp Leu Thr Gln Ile Pro His Gly
145                 150                 155                 160

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

Asn Arg Phe Glu Asn Glu Thr Ile Lys Ile Ser Ile Tyr Gln Ile Ile
            180                 185                 190

Lys Glu Tyr Thr Asn Arg Asp Ala Asp Leu Phe Leu Leu Asp Thr Arg
        195                 200                 205

Lys Ala Gln Ala Leu Asp Val Gly Trp Leu Val Phe Asp Ile Thr Val
    210                 215                 220

Thr Ser Asn His Trp Val Ile Asn Pro Gln Asn Asn Leu Gly Leu Gln
225                 230                 235                 240

Leu Cys Ala Glu Thr Gly Asp Gly Arg Ser Ile Asn Val Lys Ser Ala
                245                 250                 255

Gly Leu Val Gly Arg Gln Gly Pro Gln Ser Lys Gln Pro Phe Met Val
            260                 265                 270

Ala Phe Phe Lys Ala Ser Glu Val Leu Leu Arg Ser Val Arg Ala Ala
        275                 280                 285

Asn Lys Arg Lys Asn Gln Asn Arg Asn Lys Ser Ser Ser His Gln Asp
    290                 295                 300

Ser Ser Arg Met Ser Ser Val Gly Asp Tyr Asn Thr Ser Glu Gln Lys
305                 310                 315                 320

Gln Ala Cys Lys Lys His Glu Leu Tyr Val Ser Phe Arg Asp Leu Gly
                325                 330                 335

Trp Gln Asp Trp Ile Ile Ala Pro Glu Gly Tyr Ala Ala Phe Tyr Cys
            340                 345                 350

Asp Gly Glu Cys Ser Phe Pro Leu Asn Ala His Met Asn Ala Thr Asn
        355                 360                 365
```

```
His Ala Ile Val Gln Thr Leu Val His Leu Met Phe Pro Asp His Val
    370                 375                 380

Pro Lys Pro Cys Cys Ala Pro Thr Lys Leu Asn Ala Ile Ser Val Leu
385                 390                 395                 400

Tyr Phe Asp Asp Ser Ser Asn Val Ile Leu Lys Lys Tyr Arg Asn Met
                405                 410                 415

Val Val Arg Ser Cys Gly Cys His
            420
```

<210> 26
<211> 493
<212> PRT
<213> Homo sapiens

<400> 26

```
Cys Cys Gly Pro Pro Pro Leu Arg Pro Pro Leu Pro Ala Ala Ala Ala
1               5                   10                  15

Ala Ala Ala Gly Gly Gln Leu Leu Gly Asp Gly Gly Ser Pro Gly Arg
            20                  25                  30

Thr Glu Gln Pro Pro Pro Ser Pro Gln Ser Ser Ser Gly Phe Leu Tyr
        35                  40                  45

Arg Arg Leu Lys Thr Gln Glu Lys Arg Glu Met Gln Lys Glu Ile Leu
    50                  55                  60

Ser Val Leu Gly Leu Pro His Arg Pro Arg Pro Leu His Gly Leu Gln
65                  70                  75                  80

Gln Pro Gln Pro Pro Ala Leu Arg Gln Gln Glu Glu Gln Gln Gln Gln
                85                  90                  95

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

Pro Leu Phe Met Leu Asp Leu Tyr Asn Ala Leu Ser Ala Asp Asn Asp
        115                 120                 125

Glu Asp Gly Ala Ser Glu Gly Glu Arg Gln Gln Ser Trp Pro His Glu
    130                 135                 140

Ala Ala Ser Ser Ser Gln Arg Arg Gln Pro Pro Pro Gly Ala Ala His
145                 150                 155                 160

Pro Leu Asn Arg Lys Ser Leu Leu Ala Pro Gly Ser Gly Ser Gly Gly
                165                 170                 175
```

```
Ala Ser Pro Leu Thr Ser Ala Gln Asp Ser Ala Phe Leu Asn Asp Ala
            180                 185                 190

Asp Met Val Met Ser Phe Val Asn Leu Val Glu Tyr Asp Lys Glu Phe
        195                 200                 205

Ser Pro Arg Gln Arg His His Lys Glu Phe Lys Phe Asn Leu Ser Gln
    210                 215                 220

Ile Pro Glu Gly Glu Val Val Thr Ala Ala Glu Phe Arg Ile Tyr Lys
225                 230                 235                 240

Asp Cys Val Met Gly Ser Phe Lys Asn Gln Thr Phe Leu Ile Ser Ile
                245                 250                 255

Tyr Gln Val Leu Gln Glu His Gln His Arg Asp Ser Asp Leu Phe Leu
            260                 265                 270

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

Asp Ile Thr Ala Thr Ser Asn Leu Trp Val Val Thr Pro Gln His Asn
    290                 295                 300

Met Gly Leu Gln Leu Ser Val Val Thr Arg Asp Gly Val His Val His
305                 310                 315                 320

Pro Arg Ala Ala Gly Leu Val Gly Arg Asp Gly Pro Tyr Asp Lys Gln
                325                 330                 335

Pro Phe Met Val Ala Phe Phe Lys Val Ser Glu Val His Val Arg Thr
            340                 345                 350

Thr Arg Ser Ala Ser Ser Arg Arg Arg Gln Gln Ser Arg Asn Arg Ser
        355                 360                 365

Thr Gln Ser Gln Asp Val Ala Arg Val Ser Ser Ala Ser Asp Tyr Asn
    370                 375                 380

Ser Ser Glu Leu Lys Thr Ala Cys Arg Lys His Glu Leu Tyr Val Ser
385                 390                 395                 400

Phe Gln Asp Leu Gly Trp Gln Asp Trp Ile Ile Ala Pro Lys Gly Tyr
                405                 410                 415

Ala Ala Asn Tyr Cys Asp Gly Glu Cys Ser Phe Pro Leu Asn Ala His
            420                 425                 430

Met Asn Ala Thr Asn His Ala Ile Val Gln Thr Leu Val His Leu Met
        435                 440                 445
```

Asn Pro Glu Tyr Val Pro Lys Pro Cys Cys Ala Pro Thr Lys Leu Asn
450 455 460

Ala Ile Ser Val Leu Tyr Phe Asp Asp Asn Ser Asn Val Ile Leu Lys
465 470 475 480

Lys Tyr Arg Asn Met Val Val Arg Ala Cys Gly Cys His
485 490

<210> 27
<211> 402
<212> PRT
<213> Homo sapiens

<400> 27
Asp Phe Ser Leu Asp Asn Glu Val His Ser Ser Phe Ile His Arg Arg
1 5 10 15

Leu Arg Ser Gln Glu Arg Arg Glu Met Gln Arg Glu Ile Leu Ser Ile
20 25 30

Leu Gly Leu Pro His Arg Pro Arg Pro His Leu Gln Gly Lys His Asn
35 40 45

Ser Ala Pro Met Phe Met Leu Asp Leu Tyr Asn Ala Met Ala Val Glu
50 55 60

Glu Gly Gly Gly Pro Gly Gly Gln Gly Phe Ser Tyr Pro Tyr Lys Ala
65 70 75 80

Val Phe Ser Thr Gln Gly Pro Pro Leu Ala Ser Leu Gln Asp Ser His
85 90 95

Phe Leu Thr Asp Ala Asp Met Val Met Ser Phe Val Asn Leu Val Glu
100 105 110

His Asp Lys Glu Phe Phe His Pro Arg Tyr His His Arg Glu Phe Arg
115 120 125

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

Phe Arg Ile Tyr Lys Asp Tyr Ile Arg Glu Arg Phe Asp Asn Glu Thr
145 150 155 160

Phe Arg Ile Ser Val Tyr Gln Val Leu Gln Glu His Leu Gly Arg Glu
165 170 175

Ser Asp Leu Phe Leu Leu Asp Ser Arg Thr Leu Trp Ala Ser Glu Glu
180 185 190

Gly Trp Leu Val Phe Asp Ile Thr Ala Thr Ser Asn His Trp Val Val
195 200 205

```
Asn Pro Arg His Asn Leu Gly Leu Gln Leu Ser Val Glu Thr Leu Asp
    210                 215                 220

Gly Gln Ser Ile Asn Pro Lys Leu Ala Gly Leu Ile Gly Arg His Gly
225                 230                 235                 240

Pro Gln Asn Lys Gln Pro Phe Met Val Ala Phe Phe Lys Ala Thr Glu
                245                 250                 255

Val His Phe Arg Ser Ile Arg Ser Thr Gly Ser Lys Gln Arg Ser Gln
            260                 265                 270

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

Val Ala Glu Asn Ser Ser Ser Asp Gln Arg Gln Ala Cys Lys Lys His
    290                 295                 300

Glu Leu Tyr Val Ser Phe Arg Asp Leu Gly Trp Gln Asp Trp Ile Ile
305                 310                 315                 320

Ala Pro Glu Gly Tyr Ala Ala Tyr Tyr Cys Glu Gly Glu Cys Ala Phe
                325                 330                 335

Pro Leu Asn Ser Tyr Met Asn Ala Thr Asn His Ala Ile Val Gln Thr
            340                 345                 350

Leu Val His Phe Ile Asn Pro Glu Thr Val Pro Lys Pro Cys Cys Ala
        355                 360                 365

Pro Thr Gln Leu Asn Ala Ile Ser Val Leu Tyr Phe Asp Asp Ser Ser
    370                 375                 380

Asn Val Ile Leu Lys Lys Tyr Arg Asn Met Val Val Arg Ala Cys Gly
385                 390                 395                 400

Cys His
```

<210> 28
<211> 383
<212> PRT
<213> Homo sapiens

<400> 28

```
Gly Gly Gly Pro Gly Leu Arg Pro Pro Pro Gly Cys Pro Gln Arg Arg
1               5                   10                  15

Leu Gly Ala Arg Glu Arg Arg Asp Val Gln Arg Glu Ile Leu Ala Val
            20                  25                  30
```

```
Leu Gly Leu Pro Gly Arg Pro Arg Pro Arg Ala Pro Pro Ala Ala Ser
        35                  40                  45

Arg Leu Pro Ala Ser Ala Pro Leu Phe Met Leu Asp Leu Tyr His Ala
    50                  55                  60

Met Ala Gly Asp Asp Asp Glu Asp Gly Ala Pro Ala Glu Gln Arg Leu
65                  70                  75                  80

Gly Arg Ala Asp Leu Val Met Ser Phe Val Asn Met Val Glu Arg Asp
                85                  90                  95

Arg Ala Leu Gly His Gln Glu Pro His Trp Lys Glu Phe Arg Phe Asp
            100                 105                 110

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

Ile Tyr Lys Val Pro Ser Ile His Leu Leu Asn Arg Thr Leu His Val
    130                 135                 140

Ser Met Phe Gln Val Val Gln Glu Gln Ser Asn Arg Glu Ser Asp Leu
145                 150                 155                 160

Phe Phe Leu Asp Leu Gln Thr Leu Arg Ala Gly Asp Glu Gly Trp Leu
                165                 170                 175

Val Leu Asp Val Thr Ala Ala Ser Asp Cys Trp Leu Leu Lys Arg His
            180                 185                 190

Lys Asp Leu Gly Leu Arg Leu Tyr Val Glu Thr Glu Asp Gly His Ser
        195                 200                 205

Val Asp Pro Gly Leu Ala Gly Leu Leu Gly Gln Arg Ala Pro Arg Ser
    210                 215                 220

Gln Gln Pro Phe Val Val Thr Phe Phe Arg Ala Ser Pro Ser Pro Ile
225                 230                 235                 240

Arg Thr Pro Arg Ala Val Arg Pro Leu Arg Arg Arg Gln Pro Lys Lys
                245                 250                 255

Ser Asn Glu Leu Pro Gln Ala Asn Arg Leu Pro Gly Ile Phe Asp Asp
            260                 265                 270

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

Val Ser Phe Gln Asp Leu Gly Trp Leu Asp Trp Val Ile Ala Pro Gln
    290                 295                 300
```

```
Gly Tyr Ser Ala Tyr Tyr Cys Glu Gly Glu Cys Ser Phe Pro Leu Asp
305                 310                 315                 320

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

Leu Met Lys Pro Asn Ala Val Pro Lys Ala Cys Cys Ala Pro Thr Lys
            340                 345                 350

Leu Ser Ala Thr Ser Val Leu Tyr Tyr Asp Ser Ser Asn Asn Val Ile
        355                 360                 365

Leu Arg Lys His Arg Asn Met Val Val Lys Ala Cys Gly Cys His
    370                 375                 380
```

<210> 29
<211> 383
<212> PRT
<213> Homo sapiens

<400> 29

```
Gly Gly Gly Pro Gly Leu Arg Pro Pro Pro Gly Cys Pro Gln Arg Arg
1               5                   10                  15

Leu Gly Ala Arg Glu Arg Arg Asp Val Gln Arg Glu Ile Leu Ala Val
            20                  25                  30

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

Arg Leu Pro Ala Ser Ala Pro Leu Phe Met Leu Asp Leu Tyr His Ala
    50                  55                  60

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

Gly Arg Ala Asp Leu Val Met Ser Phe Val Asn Met Val Glu Arg Asp
                85                  90                  95

Arg Ala Leu Gly His Gln Glu Pro His Trp Lys Glu Phe Arg Phe Asp
            100                 105                 110

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

Ile Tyr Lys Val Pro Ser Ile His Leu Leu Asn Arg Thr Leu His Val
    130                 135                 140

Ser Met Phe Gln Val Val Gln Glu Gln Ser Asn Arg Glu Ser Asp Leu
145                 150                 155                 160

Phe Phe Leu Asp Leu Gln Thr Leu Arg Ala Gly Asp Glu Gly Trp Leu
                165                 170                 175
```

```
Val Leu Asp Val Thr Ala Ala Ser Asp Cys Trp Leu Leu Lys Arg His
            180                 185                 190

Lys Asp Leu Gly Leu Arg Leu Tyr Val Glu Thr Glu Asp Gly His Ser
        195                 200                 205

Val Asp Pro Gly Leu Ala Gly Leu Leu Gly Gln Arg Ala Pro Arg Ser
    210                 215                 220

Gln Gln Pro Phe Val Val Thr Phe Phe Arg Ala Ser Pro Ser Pro Ile
225                 230                 235                 240

Arg Thr Pro Arg Ala Val Arg Pro Leu Arg Arg Arg Gln Pro Lys Lys
                245                 250                 255

Ser Asn Glu Leu Pro Gln Ala Asn Arg Leu Pro Gly Ile Phe Asp Asp
            260                 265                 270

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

Val Ser Phe Gln Asp Leu Gly Trp Leu Asp Trp Val Ile Ala Pro Gln
    290                 295                 300

Gly Tyr Ser Ala Tyr Tyr Cys Glu Gly Glu Cys Ser Phe Pro Leu Asp
305                 310                 315                 320

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

Leu Met Met Pro Asp Ala Val Pro Lys Ala Cys Cys Ala Pro Thr Lys
            340                 345                 350

Leu Ser Ala Thr Ser Val Leu Tyr Tyr Asp Ser Ser Asn Asn Val Ile
        355                 360                 365

Leu Arg Lys His Arg Asn Met Val Val Lys Ala Cys Gly Cys His
    370                 375                 380


<210> 30
<211> 374
<212> PRT
<213> Homo sapiens

<400> 30
Met Glu His Arg Ala Gln Met Ala Glu Gly Gly Gln Ser Ser Ile Ala
1               5                   10                  15

Leu Leu Ala Glu Ala Pro Thr Leu Pro Leu Ile Glu Glu Leu Leu Glu
            20                  25                  30
```

```
Glu Ser Pro Gly Glu Gln Pro Arg Lys Pro Arg Leu Leu Gly His Ser
        35                  40                  45

Leu Arg Tyr Met Leu Glu Leu Tyr Arg Arg Ser Ala Asp Ser His Gly
    50                  55                  60

His Pro Arg Glu Asn Arg Thr Ile Gly Ala Thr Met Val Arg Leu Val
65                  70                  75                  80

Lys Pro Leu Thr Ser Val Ala Arg Pro His Arg Gly Thr Trp His Ile
                85                  90                  95

Gln Ile Leu Gly Phe Pro Leu Arg Pro Asn Arg Gly Leu Tyr Gln Leu
            100                 105                 110

Val Arg Ala Thr Val Val Tyr Arg His His Leu Gln Leu Thr Arg Phe
        115                 120                 125

Asn Leu Ser Cys His Val Glu Pro Trp Val Gln Lys Asn Pro Thr Asn
    130                 135                 140

His Phe Pro Ser Ser Glu Gly Asp Ser Ser Lys Pro Ser Leu Met Ser
145                 150                 155                 160

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

Trp Asn Asn Lys Gly His Arg Ile Leu Arg Leu Arg Phe Met Cys Gln
            180                 185                 190

Gln Gln Lys Asp Ser Gly Gly Leu Glu Leu Trp His Gly Thr Ser Ser
        195                 200                 205

Leu Asp Ile Ala Phe Leu Leu Leu Tyr Phe Asn Asp Thr His Lys Ser
    210                 215                 220

Ile Arg Lys Ala Lys Phe Leu Pro Arg Gly Met Glu Glu Phe Met Glu
225                 230                 235                 240

Arg Glu Ser Leu Leu Arg Arg Thr Arg Gln Ala Asp Gly Ile Ser Ala
                245                 250                 255

Glu Val Thr Ala Ser Ser Ser Lys His Ser Gly Pro Glu Asn Asn Gln
            260                 265                 270

Cys Ser Leu His Pro Phe Gln Ile Ser Phe Arg Gln Leu Gly Trp Asp
        275                 280                 285

His Trp Ile Ile Ala Pro Pro Phe Tyr Thr Pro Asn Tyr Cys Lys Gly
    290                 295                 300
```

```
Thr Cys Leu Arg Val Leu Arg Asp Gly Leu Asn Ser Pro Asn His Ala
305                 310                 315                 320

Ile Ile Gln Asn Leu Ile Asn Gln Leu Val Asp Gln Ser Val Pro Arg
                325                 330                 335

Pro Ser Cys Val Pro Tyr Lys Tyr Val Pro Ile Ser Val Leu Met Ile
            340                 345                 350

Glu Ala Asn Gly Ser Ile Leu Tyr Lys Glu Tyr Glu Gly Met Ile Ala
        355                 360                 365

Glu Ser Cys Thr Cys Arg
    370
```

<210> 31
<211> 430
<212> PRT
<213> Homo sapiens

<400> 31

```
Ser Gln Ala Ser Gly Gly Glu Ala Gln Ile Ala Ala Ser Ala Glu Leu
1               5                   10                  15

Glu Ser Gly Ala Met Pro Trp Ser Leu Leu Gln His Ile Asp Glu Arg
            20                  25                  30

Asp Arg Ala Gly Leu Leu Pro Ala Leu Phe Lys Val Leu Ser Val Gly
        35                  40                  45

Arg Gly Gly Ser Pro Arg Leu Gln Pro Asp Ser Arg Ala Leu His Tyr
    50                  55                  60

Met Lys Lys Leu Tyr Lys Thr Tyr Ala Thr Lys Glu Gly Ile Pro Lys
65                  70                  75                  80

Ser Asn Arg Ser His Leu Tyr Asn Thr Val Arg Leu Phe Thr Pro Cys
                85                  90                  95

Thr Arg His Lys Gln Ala Pro Gly Asp Gln Val Thr Gly Ile Leu Pro
            100                 105                 110

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

Leu Leu Lys Ser Val Leu Leu Tyr Asn Ile Asn Asn Ser Val Ser Phe
    130                 135                 140

Ser Ser Ala Val Lys Cys Val Cys Asn Leu Met Ile Lys Glu Pro Lys
145                 150                 155                 160

Ser Ser Ser Arg Thr Leu Gly Arg Ala Pro Tyr Ser Phe Thr Phe Asn
                165                 170                 175
```

```
Ser Gln Phe Glu Phe Gly Lys Lys His Lys Trp Ile Gln Ile Asp Val
            180                 185                 190

Thr Ser Leu Leu Gln Pro Leu Val Ala Ser Asn Lys Arg Ser Ile His
        195                 200                 205

Met Ser Ile Asn Phe Thr Cys Met Lys Asp Gln Leu Glu His Pro Ser
    210                 215                 220

Ala Gln Asn Gly Leu Phe Asn Met Thr Leu Val Ser Pro Ser Leu Ile
225                 230                 235                 240

Leu Tyr Leu Asn Asp Thr Ser Ala Gln Ala Tyr His Ser Trp Tyr Ser
                245                 250                 255

Leu His Tyr Lys Arg Arg Pro Ser Gln Gly Pro Asp Gln Glu Arg Ser
            260                 265                 270

Leu Ser Ala Tyr Pro Val Gly Glu Glu Ala Ala Glu Asp Gly Arg Ser
        275                 280                 285

Ser His His Arg His Arg Arg Gly Gln Glu Thr Val Ser Ser Glu Leu
    290                 295                 300

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

Gln Phe Leu Leu Pro Gln Asn Glu Cys Glu Leu His Asp Phe Arg Leu
                325                 330                 335

Ser Phe Ser Gln Leu Lys Trp Asp Asn Trp Ile Val Ala Pro His Arg
            340                 345                 350

Tyr Asn Pro Arg Tyr Cys Lys Gly Asp Cys Pro Arg Ala Val Gly His
        355                 360                 365

Arg Tyr Gly Ser Pro Val His Thr Met Val Gln Asn Ile Ile Tyr Glu
    370                 375                 380

Lys Leu Asp Ser Ser Val Pro Arg Pro Ser Cys Val Pro Ala Lys Tyr
385                 390                 395                 400

Ser Pro Leu Ser Val Leu Thr Ile Glu Pro Asp Gly Ser Ile Ala Tyr
                405                 410                 415

Lys Glu Tyr Glu Asp Met Ile Ala Thr Lys Cys Thr Cys Arg
            420                 425                 430
```

<210> 32
<211> 450

<212> PRT
<213> Homo sapiens

<400> 32

```
Glu Arg Pro Lys Pro Pro Phe Pro Glu Leu Arg Lys Ala Val Pro Gly
1               5                  10                  15

Asp Arg Thr Ala Gly Gly Gly Pro Asp Ser Glu Leu Gln Pro Gln Asp
            20                  25                  30

Lys Val Ser Glu His Met Leu Arg Leu Tyr Asp Arg Tyr Ser Thr Val
        35                  40                  45

Gln Ala Ala Arg Thr Pro Gly Ser Leu Glu Gly Gly Ser Gln Pro Trp
    50                  55                  60

Arg Pro Arg Leu Leu Arg Glu Gly Asn Thr Val Arg Ser Phe Arg Ala
65                  70                  75                  80

Ala Ala Ala Glu Thr Leu Glu Arg Lys Gly Leu Tyr Ile Phe Asn Leu
                85                  90                  95

Thr Ser Leu Thr Lys Ser Glu Asn Ile Leu Ser Ala Thr Leu Tyr Phe
            100                 105                 110

Cys Ile Gly Glu Leu Gly Asn Ile Ser Leu Ser Cys Pro Val Ser Gly
        115                 120                 125

Gly Cys Ser His His Ala Gln Arg Lys His Ile Gln Ile Asp Leu Ser
    130                 135                 140

Ala Trp Thr Leu Lys Phe Ser Arg Asn Gln Ser Gln Leu Leu Gly His
145                 150                 155                 160

Leu Ser Val Asp Met Ala Lys Ser His Arg Asp Ile Met Ser Trp Leu
                165                 170                 175

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

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

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

Ala Ala Ile Ser Glu Pro Glu Ser Val Val Ser Ser Leu Gln Gly His
225                 230                 235                 240

Arg Asn Phe Pro Thr Gly Thr Val Pro Lys Trp Asp Ser His Ile Arg
                245                 250                 255
```

```
Ala Ala Leu Ser Ile Glu Arg Arg Lys Lys Arg Ser Thr Gly Val Leu
            260                 265                 270

Leu Pro Leu Gln Asn Asn Glu Leu Pro Gly Ala Glu Tyr Gln Tyr Lys
        275                 280                 285

Lys Asp Glu Val Trp Glu Glu Arg Lys Pro Tyr Lys Thr Leu Gln Ala
    290                 295                 300

Gln Ala Pro Glu Lys Ser Lys Asn Lys Lys Lys Gln Arg Lys Gly Pro
305                 310                 315                 320

His Arg Lys Ser Gln Thr Leu Gln Phe Asp Glu Gln Thr Leu Lys Lys
                325                 330                 335

Ala Arg Arg Lys Gln Trp Ile Glu Pro Arg Asn Cys Ala Arg Arg Tyr
            340                 345                 350

Leu Lys Val Asp Phe Ala Asp Ile Gly Trp Ser Glu Trp Ile Ile Ser
        355                 360                 365

Pro Lys Ser Phe Asp Ala Tyr Tyr Cys Ser Gly Ala Cys Gln Phe Pro
    370                 375                 380

Met Pro Lys Ser Leu Lys Pro Ser Asn His Ala Thr Ile Gln Ser Ile
385                 390                 395                 400

Val Arg Ala Val Gly Val Val Pro Gly Ile Pro Glu Pro Cys Cys Val
                405                 410                 415

Pro Glu Lys Met Ser Ser Leu Ser Ile Leu Phe Phe Asp Glu Asn Lys
            420                 425                 430

Asn Val Val Leu Lys Val Tyr Pro Asn Met Thr Val Glu Ser Cys Ala
        435                 440                 445

Cys Arg
    450
```

<210> 33
<211> 445
<212> PRT
<213> Homo sapiens

<400> 33

```
Ser His Arg Ala Pro Ala Trp Ser Ala Leu Pro Ala Ala Ala Asp Gly
1               5                   10                  15

Leu Gln Gly Asp Arg Asp Leu Gln Arg His Pro Gly Asp Ala Ala Ala
            20                  25                  30

Thr Leu Gly Pro Ser Ala Gln Asp Met Val Ala Val His Met His Arg
        35                  40                  45
```

```
Leu Tyr Glu Lys Tyr Ser Arg Gln Gly Ala Arg Pro Gly Gly Gly Asn
    50                  55                  60

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

Val Tyr Phe Phe Asn Leu Thr Ser Met Gln Asp Ser Glu Met Ile Leu
                85                  90                  95

Thr Ala Thr Phe His Phe Tyr Ser Glu Pro Pro Arg Trp Pro Arg Ala
            100                 105                 110

Leu Glu Val Leu Cys Lys Pro Arg Ala Lys Asn Ala Ser Gly Arg Pro
        115                 120                 125

Leu Pro Leu Gly Pro Pro Thr Arg Gln His Leu Leu Phe Arg Ser Leu
    130                 135                 140

Ser Gln Asn Thr Ala Thr Gln Gly Leu Leu Arg Gly Ala Met Ala Leu
145                 150                 155                 160

Ala Pro Pro Pro Arg Gly Leu Trp Gln Ala Lys Asp Ile Ser Pro Ile
                165                 170                 175

Val Lys Ala Ala Arg Arg Asp Gly Glu Leu Leu Leu Ser Ala Gln Leu
            180                 185                 190

Asp Ser Glu Glu Arg Asp Pro Gly Val Pro Arg Pro Ser Pro Tyr Ala
        195                 200                 205

Pro Tyr Ile Leu Val Tyr Ala Asn Asp Leu Ala Ile Ser Glu Pro Asn
    210                 215                 220

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

Pro Glu Pro Arg Ala Ala Pro Asn Asn Ser Ala Asp Pro Arg Val Arg
                245                 250                 255

Arg Ala Ala Gln Ala Thr Gly Pro Leu Gln Asp Asn Glu Leu Pro Gly
            260                 265                 270

Leu Asp Glu Arg Pro Pro Arg Ala His Ala Gln His Phe His Lys His
        275                 280                 285

Gln Leu Trp Pro Ser Pro Phe Arg Ala Leu Lys Pro Arg Pro Gly Arg
    290                 295                 300

Lys Asp Arg Arg Lys Lys Gly Gln Glu Val Phe Met Ala Ala Ser Gln
305                 310                 315                 320
```

```
Val Leu Asp Phe Asp Glu Lys Thr Met Gln Lys Ala Arg Arg Lys Gln
                325                 330                 335

Trp Asp Glu Pro Arg Val Cys Ser Arg Arg Tyr Leu Lys Val Asp Phe
            340                 345                 350

Ala Asp Ile Gly Trp Asn Glu Trp Ile Ile Ser Pro Lys Ser Phe Asp
        355                 360                 365

Ala Tyr Tyr Cys Ala Gly Ala Cys Glu Phe Pro Met Pro Lys Ile Val
    370                 375                 380

Arg Pro Ser Asn His Ala Thr Ile Gln Ser Ile Val Arg Ala Val Gly
385                 390                 395                 400

Ile Ile Pro Gly Ile Pro Glu Pro Cys Cys Val Pro Asp Lys Met Asn
                405                 410                 415

Ser Leu Gly Val Leu Phe Leu Asp Glu Asn Arg Asn Val Val Leu Lys
            420                 425                 430

Val Tyr Pro Asn Met Ser Val Asp Thr Cys Ala Cys Arg
        435                 440                 445


<210> 34
<211> 192
<212> PRT
<213> Homo sapiens

<400> 34
Phe Pro Leu Pro Ala Gly Lys Arg Pro Pro Glu Ala Pro Ala Glu Asp
1               5                   10                  15

Arg Ser Leu Gly Arg Arg Arg Ala Pro Phe Ala Leu Ser Ser Asp Ser
            20                  25                  30

Asn Met Pro Glu Asp Tyr Pro Asp Gln Phe Asp Asp Val Met Asp Phe
        35                  40                  45

Ile Gln Ala Thr Ile Lys Arg Leu Lys Arg Ser Pro Asp Lys Gln Met
    50                  55                  60

Ala Val Leu Pro Arg Arg Glu Arg Asn Arg Gln Ala Ala Ala Ala Asn
65                  70                  75                  80

Pro Glu Asn Ser Arg Gly Lys Gly Arg Arg Gly Gln Arg Gly Lys Asn
                85                  90                  95

Arg Gly Cys Val Leu Thr Ala Ile His Leu Asn Val Thr Asp Leu Gly
            100                 105                 110
```

Leu Gly Tyr Glu Thr Lys Glu Glu Leu Ile Phe Arg Tyr Cys Ser Gly
115 120 125

Ser Cys Asp Ala Ala Glu Thr Thr Tyr Asp Lys Ile Leu Lys Asn Leu
130 135 140

Ser Arg Asn Arg Arg Leu Val Ser Asp Lys Val Gly Gln Ala Cys Cys
145 150 155 160

Arg Pro Ile Ala Phe Asp Asp Asp Leu Ser Phe Leu Asp Asp Asn Leu
165 170 175

Val Tyr His Ile Leu Arg Lys His Ser Ala Lys Arg Cys Gly Cys Ile
180 185 190

<210> 35
<211> 178
<212> PRT
<213> Homo sapiens

<400> 35
Ile Trp Met Cys Arg Glu Gly Leu Leu Leu Ser His Arg Leu Gly Pro
1 5 10 15

Ala Leu Val Pro Leu His Arg Leu Pro Arg Thr Leu Asp Ala Arg Ile
20 25 30

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

Met Glu Leu Arg Glu Leu Thr Pro Trp Ala Gly Arg Pro Pro Gly Pro
50 55 60

Arg Arg Arg Ala Gly Pro Arg Arg Arg Arg Ala Arg Ala Arg Leu Gly
65 70 75 80

Ala Arg Pro Cys Gly Leu Arg Glu Leu Glu Val Arg Val Ser Glu Leu
85 90 95

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

Gly Ala Cys Glu Ala Ala Ala Arg Val Tyr Asp Leu Gly Leu Arg Arg
115 120 125

Leu Arg Gln Arg Arg Arg Leu Arg Arg Glu Arg Val Arg Ala Gln Pro
130 135 140

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

His Ser Arg Tyr His Thr Val His Glu Leu Ser Ala Arg Glu Cys Ala
165 170 175

Cys Val

<210> 36
<211> 135
<212> PRT
<213> Homo sapiens

<400> 36
Trp Gly Pro Asp Ala Arg Gly Val Pro Val Ala Asp Gly Glu Phe Ser
1 5 10 15

Ser Glu Gln Val Ala Lys Ala Gly Gly Thr Trp Leu Gly Thr His Arg
20 25 30

Pro Leu Ala Arg Leu Arg Arg Ala Leu Ser Gly Pro Cys Gln Leu Trp
35 40 45

Ser Leu Thr Leu Ser Val Ala Glu Leu Gly Leu Gly Tyr Ala Ser Glu
50 55 60

Glu Lys Val Ile Phe Arg Tyr Cys Ala Gly Ser Cys Pro Arg Gly Ala
65 70 75 80

Arg Thr Gln His Gly Leu Ala Leu Ala Arg Leu Gln Gly Gln Gly Arg
85 90 95

Ala His Gly Gly Pro Cys Cys Arg Pro Thr Arg Tyr Thr Asp Val Ala
100 105 110

Phe Leu Asp Asp Arg His Arg Trp Gln Arg Leu Pro Gln Leu Ser Ala
115 120 125

Ala Ala Cys Gly Cys Gly Gly
130 135

<210> 37
<211> 181
<212> PRT
<213> Homo sapiens

<400> 37
Ser Leu Gly Ser Ala Pro Arg Ser Pro Ala Pro Arg Glu Gly Pro Pro
1 5 10 15

Pro Val Leu Ala Ser Pro Ala Gly His Leu Pro Gly Gly Arg Thr Ala
20 25 30

Arg Trp Cys Ser Gly Arg Ala Arg Arg Pro Pro Pro Gln Pro Ser Arg
35 40 45

Pro Ala Pro Pro Pro Pro Ala Pro Pro Ser Ala Leu Pro Arg Gly Gly
50 55 60

```
Arg Ala Ala Arg Ala Gly Gly Pro Gly Ser Arg Ala Arg Ala Ala Gly
65                  70                  75                  80

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

Gly Leu Gly His Arg Ser Asp Glu Leu Val Arg Phe Arg Phe Cys Ser
            100                 105                 110

Gly Ser Cys Arg Arg Ala Arg Ser Pro His Asp Leu Ser Leu Ala Ser
        115                 120                 125

Leu Leu Gly Ala Gly Ala Leu Arg Pro Pro Pro Gly Ser Arg Pro Val
    130                 135                 140

Ser Gln Pro Cys Cys Arg Pro Thr Arg Tyr Glu Ala Val Ser Phe Met
145                 150                 155                 160

Asp Val Asn Ser Thr Trp Arg Thr Val Asp Arg Leu Ser Ala Thr Ala
                165                 170                 175

Cys Gly Cys Leu Gly
            180


<210> 38
<211> 249
<212> PRT
<213> Homo sapiens

<400> 38
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1               5                   10                  15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110
```

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
115 120 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
130 135 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145 150 155 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
195 200 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
210 215 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225 230 235 240

His Leu Gln Ser Ser Arg His Arg Arg
245

<210> 39
<211> 283
<212> PRT
<213> Homo sapiens

<400> 39
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
50 55 60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65 70 75 80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
85 90 95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
100 105 110

```
Phe Asp Val Ser Ala Met Glu Lys Asn Ala Ser Asn Leu Val Lys Ala
        115                 120                 125

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
    130                 135                 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145                 150                 155                 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
                165                 170                 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
            180                 185                 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225                 230                 235                 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser
                245                 250                 255

Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu
            260                 265                 270

Glu Ser Gln Gln Thr Asn Arg Arg Lys Lys Arg
        275                 280


<210> 40
<211> 280
<212> PRT
<213> Homo sapiens

<400> 40
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1               5                   10                  15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
        35                  40                  45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
    50                  55                  60
```

```
Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65                  70                  75                  80

Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu Ala Glu
                85                  90                  95

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

Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg
        115                 120                 125

Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn
    130                 135                 140

Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile
145                 150                 155                 160

Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr
                165                 170                 175

Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu
            180                 185                 190

Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro
        195                 200                 205

Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu
    210                 215                 220

Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly
225                 230                 235                 240

Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn Pro
                245                 250                 255

His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly
            260                 265                 270

Gln Gly Gly Gln Arg Lys Lys Arg
        275                 280


<210> 41
<211> 45
<212> PRT
<213> Homo sapiens

<400> 41
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1               5                   10                  15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30
```

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro
35 40 45

<210> 42
<211> 45
<212> PRT
<213> Homo sapiens

<400> 42
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro
35 40 45

<210> 43
<211> 46
<212> PRT
<213> Homo sapiens

<400> 43
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro
35 40 45

<210> 44
<211> 112
<212> PRT
<213> Homo sapiens

<400> 44
Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys
1 5 10 15

Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys Trp
20 25 30

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

Pro Tyr Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu
50 55 60

Tyr Asn Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro
65 70 75 80

Gln Ala Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly Arg Lys Pro
85 90 95

Lys Val Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser
100 105 110

<210> 45
<211> 112
<212> PRT
<213> Homo sapiens

<400> 45
Ala Leu Asp Ala Ala Tyr Cys Phe Arg Asn Val Gln Asp Asn Cys Cys
1 5 10 15

Leu Arg Pro Leu Tyr Ile Asp Phe Lys Arg Asp Leu Gly Trp Lys Trp
20 25 30

Ile His Glu Pro Lys Gly Tyr Asn Ala Asn Phe Cys Ala Gly Ala Cys
35 40 45

Pro Tyr Leu Trp Ser Ser Asp Thr Gln His Ser Arg Val Leu Ser Leu
50 55 60

Tyr Asn Thr Ile Asn Pro Glu Ala Ser Ala Ser Pro Cys Cys Val Ser
65 70 75 80

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

Lys Ile Glu Gln Leu Ser Asn Met Ile Val Lys Ser Cys Lys Cys Ser
100 105 110

<210> 46
<211> 112
<212> PRT
<213> Homo sapiens

<400> 46
Ala Leu Asp Thr Asn Tyr Cys Phe Arg Asn Leu Glu Glu Asn Cys Cys
1 5 10 15

Val Arg Pro Leu Tyr Ile Asp Phe Arg Gln Asp Leu Gly Trp Lys Trp
20 25 30

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

Pro Tyr Leu Arg Ser Ala Asp Thr Thr His Ser Thr Val Leu Gly Leu
50 55 60

Tyr Asn Thr Leu Asn Pro Glu Ala Ser Ala Ser Pro Cys Cys Val Pro
65 70 75 80

Gln Asp Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Val Gly Arg Thr Pro
85 90 95

Lys Val Glu Gln Leu Ser Asn Met Val Val Lys Ser Cys Lys Cys Ser
100 105 110

<210> 47
<211> 4
<212> PRT
<213> Homo sapiens

<400> 47
Arg His Arg Arg
1

<210> 48
<211> 4
<212> PRT
<213> Homo sapiens

<400> 48
Arg Lys Lys Arg
1

<210> 49
<211> 204
<212> PRT
<213> Homo sapiens

<400> 49
Glu Ala Val Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly
1 5 10 15

Glu Ser Ala Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys
20 25 30

Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp
35 40 45

Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser
50 55 60

Glu Leu Arg Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu
65 70 75 80

Leu Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu
85 90 95

Tyr Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu
100 105 110

Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp Val Thr Gly
115 120 125

Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu Gly Phe Arg
130 135 140

```
Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val
145                 150                 155                 160

Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile
                165                 170                 175

His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu
            180                 185                 190

Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg
        195                 200
```

<210> 50
<211> 238
<212> PRT
<213> Homo sapiens

<400> 50

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

Lys Ala Ser Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu
            20                  25                  30

Glu Tyr Tyr Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe
        35                  40                  45

Pro Ser Glu Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg
    50                  55                  60

Ile Val Arg Phe Asp Val Ser Ala Met Glu Lys Asn Ala Ser Asn Leu
65                  70                  75                  80

Val Lys Ala Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg
                85                  90                  95

Val Pro Glu Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp
            100                 105                 110

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

Arg Ala Glu Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His
    130                 135                 140

Glu Trp Leu His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu
145                 150                 155                 160

His Cys Pro Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro
                165                 170                 175
```

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

Ser Thr Tyr Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys
195 200 205

Lys Asn Ser Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser
210 215 220

Tyr Arg Leu Glu Ser Gln Gln Thr Asn Arg Arg Lys Lys Arg
225 230 235

<210> 51
<211> 234
<212> PRT
<213> Homo sapiens

<400> 51
Tyr Gln Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu
1 5 10 15

Met His Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser
20 25 30

Glu Tyr Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu
35 40 45

Ala Glu His Asn Glu Leu Ala Val Cys Pro Lys Gly Ile Thr Ser Lys
50 55 60

Val Phe Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu
65 70 75 80

Phe Arg Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys
85 90 95

Arg Asn Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu
100 105 110

His Ile Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg
115 120 125

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

Trp Leu Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His
145 150 155 160

Cys Pro Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile
165 170 175

His Glu Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp
180 185 190

His Gly Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His
195 200 205

Asn Pro His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn
210 215 220

Pro Gly Gln Gly Gly Gln Arg Lys Lys Arg
225 230

<210> 52
<211> 29
<212> PRT
<213> Homo sapiens

<400> 52
Cys Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys
1 5 10 15

Trp Ile His Glu Pro Lys Gly Tyr His Ala Asn Phe Cys
20 25

<210> 53
<211> 30
<212> PRT
<213> Homo sapiens

<400> 53
Cys Leu Arg Pro Leu Tyr Ile Asp Phe Lys Arg Asp Leu Gly Trp Lys
1 5 10 15

Trp Ile His Glu Pro Lys Gly Tyr Asn Ala Asn Phe Cys Ala
20 25 30

<210> 54
<211> 30
<212> PRT
<213> Homo sapiens

<400> 54
Cys Val Arg Pro Leu Tyr Ile Asp Phe Arg Gln Asp Leu Gly Trp Lys
1 5 10 15

Trp Val His Glu Pro Lys Gly Tyr Tyr Ala Asn Phe Cys Ser
20 25 30

<210> 55
<211> 35
<212> PRT
<213> Homo sapiens

<400> 55
Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly
1 5 10 15

Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys
20 25 30

Lys Cys Ser
35

<210> 56
<211> 35
<212> PRT
<213> Homo sapiens

<400> 56
Cys Val Ser Gln Asp Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Ile Gly
1 5 10 15

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

Lys Cys Ser
35

<210> 57
<211> 35
<212> PRT
<213> Homo sapiens

<400> 57
Cys Val Pro Gln Asp Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Val Gly
1 5 10 15

Arg Thr Pro Lys Val Glu Gln Leu Ser Asn Met Val Val Lys Ser Cys
20 25 30

Lys Cys Ser
35

<210> 58
<211> 15
<212> PRT
<213> Homo sapiens

<400> 58
Leu Ala Ser Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu
1 5 10 15

<210> 59
<211> 13
<212> PRT
<213> Homo sapiens

<400> 59
Leu Thr Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu
1 5 10

<210> 60
<211> 13
<212> PRT
<213> Homo sapiens

<400> 60

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val
1 5 10

<210> 61
<211> 29
<212> PRT
<213> Homo sapiens

<400> 61
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg
20 25

<210> 62
<211> 29
<212> PRT
<213> Homo sapiens

<400> 62
Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Lys
20 25

<210> 63
<211> 31
<212> PRT
<213> Homo sapiens

<400> 63
Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys Lys
1 5 10 15

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

<210> 64
<211> 20
<212> PRT
<213> Homo sapiens

<400> 64
Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly
1 5 10 15

Met Asn Arg Pro
20

<210> 65
<211> 30
<212> PRT
<213> Homo sapiens

<400> 65
Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr Thr Ser Gly Asp Gln Lys
1 5 10 15

Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser Gly Lys Thr Pro
20 25 30

<210> 66
<211> 25
<212> PRT
<213> Homo sapiens

<400> 66
Gly Val Asp Asn Glu Asp Asp His Gly Arg Gly Asp Leu Gly Arg Leu
1 5 10 15

Lys Lys Gln Lys Asp His His Asn Pro
20 25

<210> 67
<211> 13
<212> PRT
<213> Homo sapiens

<400> 67
Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp
1 5 10

<210> 68
<211> 24
<212> PRT
<213> Homo sapiens

<400> 68
Cys Pro Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn
1 5 10 15

Lys Ser Glu Glu Leu Glu Ala Arg
20

<210> 69
<211> 23
<212> PRT
<213> Homo sapiens

<400> 69
Cys Pro Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile
1 5 10 15

His Glu Val Met Glu Ile Lys
20

<210> 70
<211> 243
<212> PRT
<213> Homo sapiens

<400> 70
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

```
Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65                  70                  75                  80

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
    130                 135                 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg
```

<210> 71
<211> 274
<212> PRT
<213> Homo sapiens

<400> 71

```
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                   10                  15
```

```
Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95

Gly Asp Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His
            100                 105                 110

Ala Thr Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala
        115                 120                 125

Val Gln Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro
    130                 135                 140

Lys Val Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu
145                 150                 155                 160

Arg Pro Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu
                165                 170                 175

Lys Pro Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg
            180                 185                 190

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

Gly His Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe
    210                 215                 220

Arg Gln Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro
225                 230                 235                 240

Ser Gly Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly
                245                 250                 255

Leu His Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser
            260                 265                 270

Arg Arg
```

<210> 72
<211> 64
<212> PRT
<213> Homo sapiens

<400> 72
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

<210> 73
<211> 86
<212> PRT
<213> Homo sapiens

<400> 73
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1 5 10 15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
20 25 30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
35 40 45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
50 55 60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65 70 75 80

Pro Lys Ala Pro Pro Leu
85

<210> 74
<211> 109
<212> PRT
<213> Homo sapiens

<400> 74
Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser Arg Cys Cys
1 5 10 15

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

Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu
35 40 45

Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala
50 55 60

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
65 70 75 80

Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly
85 90 95

Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
100 105

<210> 75
<211> 109
<212> PRT
<213> Homo sapiens

<400> 75
Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg Cys Cys
1 5 10 15

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

Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln Cys Glu
35 40 45

Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln Gln Ala
50 55 60

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
65 70 75 80

Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile Tyr Gly
85 90 95

Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
100 105

<210> 76
<211> 4
<212> PRT
<213> Homo sapiens

<400> 76
Arg Ser Arg Arg
1

<210> 77
<211> 179
<212> PRT
<213> Homo sapiens

<400> 77
Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
1 5 10 15

Gly Ser Leu Glu Asp Asp Asp Tyr His Ala Thr Thr Glu Thr Ile Ile
20 25 30

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
50 55 60

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
65 70 75 80

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
85 90 95

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
100 105 110

Thr Gly Ile Trp Gln Ser Ile Asp Val Lys Thr Val Leu Gln Asn Trp
115 120 125

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
130 135 140

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
145 150 155 160

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
165 170 175

Ser Arg Arg

<210> 78
<211> 188
<212> PRT
<213> Homo sapiens

<400> 78
Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp Ala Leu Gln Pro
1 5 10 15

Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr Thr Glu Thr Val
20 25 30

Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp Gly Ser
35 40 45

Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe Thr Lys
50 55 60

Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro Arg Pro
65 70 75 80

Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr Gly Glu
85 90 95

Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg Ile Arg
100 105 110

Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln Ser Ile
115 120 125

Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln Ser Asn
130 135 140

Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp Leu Ala
145 150 155 160

Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His Pro Phe Met Glu
165 170 175

Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg
180 185

<210> 79
<211> 29
<212> PRT
<213> Homo sapiens

<400> 79
Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp
1 5 10 15

Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser
20 25

<210> 80
<211> 36
<212> PRT
<213> Homo sapiens

<400> 80
Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly
1 5 10 15

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

Cys Gly Cys Ser
35

<210> 81
<211> 36
<212> PRT
<213> Homo sapiens

<400> 81
Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp
1 5 10 15

Lys Gln Gln Ile Ile Tyr Gly Lys Ile Pro Gly Met Val Val Asp Arg
20 25 30

Cys Gly Cys Ser
35

<210> 82
<211> 23
<212> PRT
<213> Homo sapiens

<400> 82
Arg Leu Glu Thr Ala Pro Asn Ile Ser Lys Asp Val Ile Arg Gln Leu
1 5 10 15

Leu Pro Lys Ala Pro Pro Leu
20

<210> 83
<211> 22
<212> PRT
<213> Homo sapiens

<400> 83
Arg Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu
1 5 10 15

Leu Pro Lys Ala Pro Pro
20

<210> 84
<211> 27
<212> PRT
<213> Homo sapiens

<400> 84
Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg
1 5 10 15

Ile Glu Ala Ile Lys Ile Gln Ile Leu Ser Lys
20 25

<210> 85
<211> 28
<212> PRT
<213> Homo sapiens

<400> 85
Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg Glu Leu Arg
1 5 10 15

Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu
20 25

<210> 86
<211> 14
<212> PRT
<213> Homo sapiens

<400> 86
Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro
1 5 10

<210> 87
<211> 13
<212> PRT
<213> Homo sapiens

<400> 87
Asp Pro Ser Gly Thr Asp Leu Ala Val Thr Ser Leu Gly
1 5 10

<210> 88
<211> 290
<212> PRT
<213> Homo sapiens

<400> 88
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1 5 10 15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
20 25 30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
35 40 45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
50 55 60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Glu Asn Gly Tyr
65 70 75 80

Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu
85 90 95

Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala
100 105 110

Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly Ser Asp Leu Ser
115 120 125

Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala
130 135 140

Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys
145 150 155 160

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

Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp
180 185 190

Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln
195 200 205

Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys
210 215 220

Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys
225 230 235 240

Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu
245 250 255

Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser His Arg Pro Phe
260 265 270

Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg
275 280 285

Arg Arg
290

<210> 89
<211> 65
<212> PRT
<213> Homo sapiens

<400> 89
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1 5 10 15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
20 25 30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
35 40 45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
50 55 60

Asn
65

<210> 90
<211> 117

<212> PRT
<213> Homo sapiens

<400> 90
Arg Gly Leu Glu Cys Asp Gly Lys Val Asn Ile Cys Cys Lys Lys Gln
1 5 10 15

Phe Phe Val Ser Phe Lys Asp Ile Gly Trp Asn Asp Trp Ile Ile Ala
20 25 30

Pro Ser Gly Tyr His Ala Asn Tyr Cys Glu Gly Glu Cys Pro Ser His
35 40 45

Ile Ala Gly Thr Ser Gly Ser Ser Leu Ser Phe His Ser Thr Val Ile
50 55 60

Asn His Tyr Arg Met Arg Gly His Ser Pro Phe Ala Asn Leu Lys Ser
65 70 75 80

Cys Cys Val Pro Thr Lys Leu Arg Pro Met Ser Met Leu Tyr Tyr Asp
85 90 95

Asp Gly Gln Asn Ile Ile Lys Lys Asp Ile Gln Asn Met Ile Val Glu
100 105 110

Glu Cys Gly Cys Ser
115

<210> 91
<211> 4
<212> PRT
<213> Homo sapiens

<400> 91
Arg Arg Arg Arg
1

<210> 92
<211> 227
<212> PRT
<213> Homo sapiens

<400> 92
Leu Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Glu Asn Gly
1 5 10 15

Tyr Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu
20 25 30

Leu Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr
35 40 45

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

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

Ala Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln
85 90 95

Lys His Pro Gln Gly Ser Leu Asp Thr Gly Glu Glu Ala Glu Glu Val
100 105 110

Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val
115 120 125

Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile
130 135 140

Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala
145 150 155 160

Cys Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys
165 170 175

Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly
180 185 190

Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser His Arg Pro
195 200 205

Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg
210 215 220

Arg Arg Arg
225

<210> 93
<211> 28
<212> PRT
<213> Homo sapiens

<400> 93
Lys Lys Gln Phe Phe Val Ser Phe Lys Asp Ile Gly Trp Asn Asp Trp
1 5 10 15

Ile Ile Ala Pro Ser Gly Tyr His Ala Asn Tyr Cys
20 25

<210> 94
<211> 36
<212> PRT
<213> Homo sapiens

<400> 94
Cys Val Pro Thr Lys Leu Arg Pro Met Ser Met Leu Tyr Tyr Asp Asp
1 5 10 15

Gly Gln Asn Ile Ile Lys Lys Asp Ile Gln Asn Met Ile Val Glu Glu
20 25 30

Cys Gly Cys Ser
35

<210> 95
<211> 17
<212> PRT
<213> Homo sapiens

<400> 95
Leu Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu
1 5 10 15

Leu

<210> 96
<211> 28
<212> PRT
<213> Homo sapiens

<400> 96
Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro Glu Met
1 5 10 15

Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu
20 25

<210> 97
<211> 33
<212> PRT
<213> Homo sapiens

<400> 97
Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys Lys Lys Lys
1 5 10 15

Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu Gly Gly Ala
20 25 30

Gly

<210> 98
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 98
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

```
Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285
```

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
290 295 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305 310 315 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
325 330 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
340 345 350

Met Ile Val Arg Ser Cys Lys Cys Ser
355 360

<210> 99
<211> 249
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 99
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65 70 75 80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
85 90 95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
100 105 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
115 120 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
130 135 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145 150 155 160

```
Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp Val Thr Gly Val Val Arg
                165                 170                 175

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Arg Arg
                245
```

<210> 100
<211> 360
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 100

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125
```

```
Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Gly Ala Leu Asp Thr Asn Tyr Cys Phe
                245                 250                 255

Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe
            260                 265                 270

Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr His
        275                 280                 285

Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr
    290                 295                 300

Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly Ala
305                 310                 315                 320

Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile
                325                 330                 335

Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met
            340                 345                 350

Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 101
<211> 360
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 101
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65 70 75 80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
85 90 95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
100 105 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
115 120 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
130 135 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145 150 155 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
195 200 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
210 215 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225 230 235 240

His Leu Gln Ser Ser Arg His Gly Ala Leu Asp Thr Asn Tyr Cys Phe
245 250 255

Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe
260 265 270

```
Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr His
        275                 280                 285

Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr
    290                 295                 300

Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly Ala
305                 310                 315                 320

Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile
                325                 330                 335

Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met
            340                 345                 350

Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 102
<211> 395
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 102

```
Ser Leu Ser Thr Ser Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1               5                   10                  15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
        35                  40                  45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
    50                  55                  60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65                  70                  75                  80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
                85                  90                  95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
            100                 105                 110

Phe Asp Val Ser Ala Met Glu Lys Asn Ala Ser Asn Leu Val Lys Ala
        115                 120                 125
```

```
Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
    130                 135                 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145                 150                 155                 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
                165                 170                 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
            180                 185                 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225                 230                 235                 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser
                245                 250                 255

Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu
            260                 265                 270

Glu Ser Gln Gln Thr Asn Arg Arg Lys Lys Arg Ala Leu Asp Ala Ala
        275                 280                 285

Tyr Cys Phe Arg Asn Val Gln Asp Asn Cys Cys Leu Arg Pro Leu Tyr
    290                 295                 300

Ile Asp Phe Lys Arg Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys
305                 310                 315                 320

Gly Tyr Asn Ala Asn Phe Cys Ala Gly Ala Cys Pro Tyr Leu Trp Ser
                325                 330                 335

Ser Asp Thr Gln His Ser Arg Val Leu Ser Leu Tyr Asn Thr Ile Asn
            340                 345                 350

Pro Glu Ala Ser Ala Ser Pro Cys Cys Val Ser Gln Asp Leu Glu Pro
        355                 360                 365

Leu Thr Ile Leu Tyr Tyr Ile Gly Lys Thr Pro Lys Ile Glu Gln Leu
    370                 375                 380

Ser Asn Met Ile Val Lys Ser Cys Lys Cys Ser
385                 390                 395
```

<210> 103
<211> 283
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 103

Ser Leu Ser Thr Ser Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
50 55 60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65 70 75 80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
85 90 95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
100 105 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
130 135 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145 150 155 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
165 170 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
180 185 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
195 200 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
210 215 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225 230 235 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser
245 250 255

Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu
260 265 270

Glu Ser Gln Gln Thr Asn Arg Arg Lys Lys Arg
275 280

<210> 104
<211> 394
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 104
Ser Leu Ser Thr Ser Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
50 55 60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65 70 75 80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
85 90 95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
100 105 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
130 135 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145 150 155 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
165 170 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
180 185 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
195 200 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
210 215 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225 230 235 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser
245 250 255

Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu
260 265 270

Glu Ser Gln Gln Thr Asn Arg Arg Lys Gly Ala Leu Asp Ala Ala Tyr
275 280 285

Cys Phe Arg Asn Val Gln Asp Asn Cys Cys Leu Arg Pro Leu Tyr Ile
290 295 300

Asp Phe Lys Arg Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly
305 310 315 320

Tyr Asn Ala Asn Phe Cys Ala Gly Ala Cys Pro Tyr Leu Trp Ser Ser
325 330 335

Asp Thr Gln His Ser Arg Val Leu Ser Leu Tyr Asn Thr Ile Asn Pro
340 345 350

Glu Ala Ser Ala Ser Pro Cys Cys Val Ser Gln Asp Leu Glu Pro Leu
355 360 365

Thr Ile Leu Tyr Tyr Ile Gly Lys Thr Pro Lys Ile Glu Gln Leu Ser
370 375 380

Asn Met Ile Val Lys Ser Cys Lys Cys Ser
385 390

<210> 105
<211> 394
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 105
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

```
Arg Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Lys Leu Thr
            20                  25                  30

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
        35                  40                  45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
    50                  55                  60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65                  70                  75                  80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
                85                  90                  95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
            100                 105                 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
    130                 135                 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145                 150                 155                 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
                165                 170                 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
            180                 185                 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225                 230                 235                 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser
                245                 250                 255

Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu
            260                 265                 270

Glu Ser Gln Gln Thr Asn Arg Arg Lys Gly Ala Leu Asp Ala Ala Tyr
        275                 280                 285
```

Cys Phe Arg Asn Val Gln Asp Asn Cys Cys Leu Arg Pro Leu Tyr Ile
290 295 300

Asp Phe Lys Arg Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly
305 310 315 320

Tyr Asn Ala Asn Phe Cys Ala Gly Ala Cys Pro Tyr Leu Trp Ser Ser
325 330 335

Asp Thr Gln His Ser Arg Val Leu Ser Leu Tyr Asn Thr Ile Asn Pro
340 345 350

Glu Ala Ser Ala Ser Pro Cys Cys Val Ser Gln Asp Leu Glu Pro Leu
355 360 365

Thr Ile Leu Tyr Tyr Ile Gly Lys Thr Pro Lys Ile Glu Gln Leu Ser
370 375 380

Asn Met Ile Val Lys Ser Cys Lys Cys Ser
385 390

<210> 106
<211> 392
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 106
Ser Leu Ser Leu Ser Thr Ser Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
35 40 45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
50 55 60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65 70 75 80

Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu Ala Glu
85 90 95

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

```
Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg
        115                 120                 125

Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn
    130                 135                 140

Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile
145                 150                 155                 160

Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr
                165                 170                 175

Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu
            180                 185                 190

Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro
        195                 200                 205

Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu
    210                 215                 220

Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly
225                 230                 235                 240

Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn Pro
                245                 250                 255

His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly
            260                 265                 270

Gln Gly Gly Gln Arg Lys Lys Arg Ala Leu Asp Thr Asn Tyr Cys Phe
        275                 280                 285

Arg Asn Leu Glu Glu Asn Cys Cys Val Arg Pro Leu Tyr Ile Asp Phe
    290                 295                 300

Arg Gln Asp Leu Gly Trp Lys Trp Val His Glu Pro Lys Gly Tyr Tyr
305                 310                 315                 320

Ala Asn Phe Cys Ser Gly Pro Cys Pro Tyr Leu Arg Ser Ala Asp Thr
                325                 330                 335

Thr His Ser Thr Val Leu Gly Leu Tyr Asn Thr Leu Asn Pro Glu Ala
            340                 345                 350

Ser Ala Ser Pro Cys Cys Val Pro Gln Asp Leu Glu Pro Leu Thr Ile
        355                 360                 365

Leu Tyr Tyr Val Gly Arg Thr Pro Lys Val Glu Gln Leu Ser Asn Met
    370                 375                 380
```

Val Val Lys Ser Cys Lys Cys Ser
385 390

<210> 107
<211> 280
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 107
Ser Leu Ser Leu Ser Thr Ser Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
35 40 45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
50 55 60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65 70 75 80

Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu Ala Glu
85 90 95

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

Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg
115 120 125

Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn
130 135 140

Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile
145 150 155 160

Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr
165 170 175

Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu
180 185 190

Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro
195 200 205

Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu
210 215 220

Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly
225 230 235 240

Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn Pro
245 250 255

His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly
260 265 270

Gln Gly Gly Gln Arg Lys Lys Arg
275 280

<210> 108
<211> 391
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 108
Ser Leu Ser Leu Ser Thr Ser Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
35 40 45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
50 55 60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65 70 75 80

Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu Ala Glu
85 90 95

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

Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg
115 120 125

Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn
130 135 140

Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile
145 150 155 160

```
Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr
                165                 170                 175

Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu
            180                 185                 190

Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro
        195                 200                 205

Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu
    210                 215                 220

Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly
225                 230                 235                 240

Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn Pro
                245                 250                 255

His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly
            260                 265                 270

Gln Gly Gly Gln Arg Lys Gly Ala Leu Asp Thr Asn Tyr Cys Phe Arg
        275                 280                 285

Asn Leu Glu Glu Asn Cys Cys Val Arg Pro Leu Tyr Ile Asp Phe Arg
    290                 295                 300

Gln Asp Leu Gly Trp Lys Trp Val His Glu Pro Lys Gly Tyr Tyr Ala
305                 310                 315                 320

Asn Phe Cys Ser Gly Pro Cys Pro Tyr Leu Arg Ser Ala Asp Thr Thr
                325                 330                 335

His Ser Thr Val Leu Gly Leu Tyr Asn Thr Leu Asn Pro Glu Ala Ser
            340                 345                 350

Ala Ser Pro Cys Cys Val Pro Gln Asp Leu Glu Pro Leu Thr Ile Leu
        355                 360                 365

Tyr Tyr Val Gly Arg Thr Pro Lys Val Glu Gln Leu Ser Asn Met Val
    370                 375                 380

Val Lys Ser Cys Lys Cys Ser
385                 390
```

<210> 109
<211> 391
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 109
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
35 40 45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
50 55 60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65 70 75 80

Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu Ala Glu
85 90 95

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

Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg
115 120 125

Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn
130 135 140

Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile
145 150 155 160

Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr
165 170 175

Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu
180 185 190

Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro
195 200 205

Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu
210 215 220

Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly
225 230 235 240

Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn Pro
245 250 255

His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly
260 265 270

Gln Gly Gly Gln Arg Lys Gly Ala Leu Asp Thr Asn Tyr Cys Phe Arg
275 280 285

Asn Leu Glu Glu Asn Cys Cys Val Arg Pro Leu Tyr Ile Asp Phe Arg
290 295 300

Gln Asp Leu Gly Trp Lys Trp Val His Glu Pro Lys Gly Tyr Tyr Ala
305 310 315 320

Asn Phe Cys Ser Gly Pro Cys Pro Tyr Leu Arg Ser Ala Asp Thr Thr
325 330 335

His Ser Thr Val Leu Gly Leu Tyr Asn Thr Leu Asn Pro Glu Ala Ser
340 345 350

Ala Ser Pro Cys Cys Val Pro Gln Asp Leu Glu Pro Leu Thr Ile Leu
355 360 365

Tyr Tyr Val Gly Arg Thr Pro Lys Val Glu Gln Leu Ser Asn Met Val
370 375 380

Val Lys Ser Cys Lys Cys Ser
385 390

<210> 110
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 110
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu His Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65 70 75 80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
85 90 95

```
Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 111
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 111

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu Gly Phe Cys Leu Ser Ala
            180                 185                 190

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240
```

```
His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360


<210> 112
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 112
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1               5                   10                  15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95
```

```
Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

Asp Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 113
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 113

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Arg Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240
```

```
His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360


<210> 114
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 114
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1               5                   10                  15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95
```

```
Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Cys Ser Arg Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 115
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 115

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Arg Ser Arg Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240
```

```
His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 116
<211> 361
<212> PRT
<213> Mus sp.

<400> 116

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Asp Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

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

Asp Ile Ser His Ser Ile Tyr Met Phe Phe Asn Thr Ser Asp Ile Arg
            100                 105                 110
```

```
Glu Ala Val Pro Glu Pro Pro Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Gln Arg Leu Lys Ser Ser Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Gly Asn Arg Leu Leu Thr Pro
145                 150                 155                 160

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

Gln Trp Leu Asn Gln Gly Asp Gly Ile Gln Gly Phe Arg Phe Ser Ala
            180                 185                 190

His Cys Ser Cys Asp Ser Lys Asp Asn Lys Leu His Val Glu Ile Asn
        195                 200                 205

Gly Ile Ser Pro Lys Arg Arg Gly Asp Leu Gly Thr Ile His Asp Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu His Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ser Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 117
<211> 361
<212> PRT
<213> Macaca fascicularis

<400> 117
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1   5   10   15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20   25   30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35   40   45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50   55   60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65   70   75   80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85   90   95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100   105   110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115   120   125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130   135   140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145   150   155   160

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

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

His Cys Ser Cys Asp Ser Lys Asp Asn Thr Leu Gln Val Asp Ile Asn
        195   200   205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210   215   220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225   230   235   240

His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245   250   255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260   265   270

```
Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360


<210> 118
<211> 249
<212> PRT
<213> Mus sp.

<400> 118
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1               5                   10                  15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Asp Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

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

Asp Ile Ser His Ser Ile Tyr Met Phe Phe Asn Thr Ser Asp Ile Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Pro Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Gln Arg Leu Lys Ser Ser Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140
```

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Gly Asn Arg Leu Leu Thr Pro
145 150 155 160

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

Gln Trp Leu Asn Gln Gly Asp Gly Ile Gln Gly Phe Arg Phe Ser Ala
180 185 190

His Cys Ser Cys Asp Ser Lys Asp Asn Lys Leu His Val Glu Ile Asn
195 200 205

Gly Ile Ser Pro Lys Arg Arg Gly Asp Leu Gly Thr Ile His Asp Met
210 215 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225 230 235 240

His Leu His Ser Ser Arg His Arg Arg
245

<210> 119
<211> 249
<212> PRT
<213> Macaca fascicularis

<400> 119
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65 70 75 80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
85 90 95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
100 105 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
115 120 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
130 135 140

```
Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Cys Ser Cys Asp Ser Lys Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Arg Arg
                245
```

<210> 120
<211> 360
<212> PRT
<213> Mus sp.

<400> 120

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Asp Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

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

Asp Ile Ser His Ser Ile Tyr Met Phe Phe Asn Thr Ser Asp Ile Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Pro Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125
```

```
Gln Arg Leu Lys Ser Ser Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Gly Asn Arg Leu Leu Thr Pro
145                 150                 155                 160

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

Gln Trp Leu Asn Gln Gly Asp Gly Ile Gln Gly Phe Arg Phe Ser Ala
            180                 185                 190

His Cys Ser Cys Asp Ser Lys Asp Asn Lys Leu His Val Glu Ile Asn
        195                 200                 205

Gly Ile Ser Pro Lys Arg Arg Gly Asp Leu Gly Thr Ile His Asp Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu His Ser Ser Arg His Gly Ala Leu Asp Thr Asn Tyr Cys Phe
                245                 250                 255

Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe
            260                 265                 270

Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr His
        275                 280                 285

Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr
    290                 295                 300

Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly Ala
305                 310                 315                 320

Ser Ala Ser Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile
                325                 330                 335

Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met
            340                 345                 350

Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 121
<211> 361
<212> PRT
<213> Mus sp.

<400> 121

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

```
Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Asp Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

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

Asp Ile Ser His Ser Ile Tyr Met Phe Phe Asn Thr Ser Asp Ile Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Pro Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Gln Arg Leu Lys Ser Ser Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Gly Asn Arg Leu Leu Thr Pro
145                 150                 155                 160

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

Gln Trp Leu Asn Gln Gly Asp Gly Ile Gln Gly Phe Arg Phe Ser Ala
            180                 185                 190

His Cys Ser Cys Asp Ser Lys Asp Asn Lys Leu His Val Glu Ile Asn
        195                 200                 205

Gly Ile Ser Pro Lys Arg Arg Gly Asp Leu Gly Thr Ile His Asp Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu His Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285
```

```
His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ser Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 122
<211> 361
<212> PRT
<213> Macaca fascicularis

<400> 122

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160
```

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

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

His Cys Ser Cys Asp Ser Lys Asp Asn Thr Leu Gln Val Asp Ile Asn
195 200 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
210 215 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225 230 235 240

His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
245 250 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
260 265 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
275 280 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
290 295 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305 310 315 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
325 330 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
340 345 350

Met Ile Val Arg Ser Cys Lys Cys Ser
355 360

<210> 123
<211> 360
<212> PRT
<213> Macaca fascicularis

<400> 123
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

```
Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Cys Ser Cys Asp Ser Lys Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Gly Ala Leu Asp Thr Asn Tyr Cys Phe
                245                 250                 255

Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe
            260                 265                 270

Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr His
        275                 280                 285

Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr
    290                 295                 300

Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly Ala
305                 310                 315                 320
```

```
Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile
                325                 330                 335

Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met
            340                 345                 350

Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 124
<211> 662
<212> PRT
<213> Macaca fascicularis

<400> 124

```
Met Ser Pro Gln Ile Leu Leu Leu Leu Ala Leu Leu Thr Leu Gly Leu
1               5                   10                  15

Ala Ala Gln His Gln Asp Lys Val Ala Cys Lys Met Val Asp Lys Lys
            20                  25                  30

Val Ser Cys Gln Gly Leu Gly Leu Leu Gln Val Pro Leu Val Leu Pro
        35                  40                  45

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

Leu Ala Ser Pro Leu Gly Phe Tyr Thr Ala Leu Arg His Leu Asp Leu
65                  70                  75                  80

Ser Thr Asn Glu Ile Asn Phe Leu Gln Pro Gly Ala Phe Gln Ala Leu
                85                  90                  95

Thr His Leu Glu His Leu Ser Leu Ala His Asn Arg Leu Ala Met Ala
            100                 105                 110

Thr Ala Leu Ser Ala Gly Gly Leu Gly Pro Leu Pro Arg Val Thr Ser
        115                 120                 125

Leu Asp Leu Ser Gly Asn Ser Leu Tyr Ser Gly Leu Leu Glu Arg Leu
    130                 135                 140

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

Leu Thr Arg Leu Thr Arg His Thr Phe Arg Asp Met Pro Ala Leu Glu
                165                 170                 175

Gln Leu Asp Leu His Ser Asn Val Leu Met Asp Ile Glu Asp Gly Ala
            180                 185                 190
```

```
Phe Glu Gly Leu Pro His Leu Thr His Leu Asn Leu Ser Arg Asn Ser
        195                 200                 205

Leu Thr Cys Ile Ser Asp Phe Ser Leu Gln Gln Leu Arg Val Leu Asp
    210                 215                 220

Leu Ser Cys Asn Ser Ile Glu Ala Phe Gln Thr Ala Ser Gln Pro Gln
225                 230                 235                 240

Ala Glu Phe Gln Leu Thr Trp Leu Asp Leu Arg Glu Asn Lys Leu Leu
                245                 250                 255

His Phe Pro Asp Leu Ala Ala Leu Pro Arg Leu Ile Tyr Leu Asn Leu
            260                 265                 270

Ser Asn Asn Leu Ile Arg Leu Pro Thr Gly Pro Pro Gln Asp Ser Lys
        275                 280                 285

Gly Ile His Ala Pro Ser Glu Gly Trp Ser Ala Leu Pro Leu Ser Thr
    290                 295                 300

Pro Asn Gly Asn Val Ser Ala Arg Pro Leu Ser Gln Leu Leu Asn Leu
305                 310                 315                 320

Asp Leu Ser Tyr Asn Glu Ile Glu Leu Ile Pro Asp Ser Phe Leu Glu
                325                 330                 335

His Leu Thr Ser Leu Cys Phe Leu Asn Leu Ser Arg Asn Cys Leu Arg
            340                 345                 350

Thr Phe Glu Ala Arg Arg Ser Gly Ser Leu Pro Cys Leu Met Leu Leu
        355                 360                 365

Asp Leu Ser His Asn Ala Leu Glu Thr Leu Glu Leu Gly Ala Arg Ala
    370                 375                 380

Leu Gly Ser Leu Arg Thr Leu Leu Leu Gln Gly Asn Ala Leu Arg Asp
385                 390                 395                 400

Leu Pro Pro Tyr Thr Phe Ala Asn Leu Ala Ser Leu Gln Arg Leu Asn
                405                 410                 415

Leu Gln Gly Asn Arg Val Ser Pro Cys Gly Gly Pro Asn Glu Pro Gly
            420                 425                 430

Pro Ala Ser Cys Val Ala Phe Ser Gly Ile Ala Ser Leu Arg Ser Leu
        435                 440                 445

Ser Leu Val Asp Asn Glu Ile Glu Leu Leu Arg Ala Gly Ala Phe Leu
    450                 455                 460
```

```
His Thr Pro Leu Thr Glu Leu Asp Leu Ser Ser Asn Pro Gly Leu Glu
465                 470                 475                 480

Val Ala Thr Gly Ala Leu Thr Gly Leu Glu Ala Ser Leu Glu Val Leu
                485                 490                 495

Ala Leu Gln Gly Asn Gly Leu Thr Val Leu Gln Val Asp Leu Pro Cys
            500                 505                 510

Phe Ile Cys Leu Lys Arg Leu Asn Leu Ala Glu Asn Arg Leu Ser His
        515                 520                 525

Leu Pro Ala Trp Thr Gln Ala Val Ser Leu Glu Val Leu Asp Leu Arg
    530                 535                 540

Asn Asn Ser Phe Ser Leu Leu Pro Gly Ser Ala Met Gly Gly Leu Glu
545                 550                 555                 560

Thr Ser Leu Arg Arg Leu Tyr Leu Gln Gly Asn Pro Leu Ser Cys Cys
                565                 570                 575

Gly Asn Gly Trp Leu Ala Ala Gln Leu His Gln Gly Arg Val Asp Val
            580                 585                 590

Asp Ala Thr Gln Asp Leu Ile Cys Arg Phe Ser Ser Gln Glu Glu Val
        595                 600                 605

Ser Leu Ser His Val Arg Pro Glu Asp Cys Glu Lys Gly Gly Leu Lys
    610                 615                 620

Asn Ile Asn Leu Ile Ile Ile Leu Thr Phe Ile Leu Val Ser Ala Ile
625                 630                 635                 640

Leu Leu Thr Thr Leu Ala Thr Cys Cys Cys Val Arg Arg Gln Lys Phe
                645                 650                 655

Asn Gln Gln Tyr Lys Ala
            660


<210> 125
<211> 352
<212> PRT
<213> Mus sp.

<400> 125
Asn Glu Gly Ser Glu Arg Glu Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                   10                  15

Asn Ala Cys Ala Trp Arg Gln Asn Thr Arg Tyr Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45
```

```
Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Arg Ala Pro Pro Leu
    50                  55                  60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65                  70                  75                  80

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

Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln Ala Asp Gly Lys Pro
            100                 105                 110

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

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

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Ser Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320
```

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
325 330 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
340 345 350

<210> 126
<211> 352
<212> PRT
<213> Mus sp.

<400> 126
Asn Glu Gly Ser Glu Arg Glu Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Ala Trp Arg Gln Asn Thr Arg Tyr Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Arg Ala Pro Pro Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65 70 75 80

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

Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln Ala Asp Gly Lys Pro
100 105 110

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
115 120 125

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

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145 150 155 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Ser Pro Gly
165 170 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
195 200 205

```
Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

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

Ser Arg Ala Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
                325                 330                 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
            340                 345                 350
```

<210> 127
<211> 352
<212> PRT
<213> Mus sp.

<400> 127

```
Asn Glu Gly Ser Glu Arg Glu Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                   10                  15

Asn Ala Cys Ala Trp Arg Gln Asn Thr Arg Tyr Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Arg Ala Pro Pro Leu
    50                  55                  60

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

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

Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln Ala Asp Gly Lys Pro
            100                 105                 110
```

```
Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

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

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Ser Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
                325                 330                 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
            340                 345                 350
```

<210> 128
<211> 352
<212> PRT
<213> Mus sp.

<400> 128

```
Asn Glu Gly Ser Glu Arg Glu Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                  10                  15

Asn Ala Cys Ala Trp Arg Gln Asn Thr Arg Tyr Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Arg Ala Pro Pro Leu
    50                  55                  60

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

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

Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln Ala Asp Gly Lys Pro
            100                 105                 110

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

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

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Ser Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

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

Ser Arg Ala Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270
```

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
275 280 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
290 295 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305 310 315 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
325 330 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
340 345 350

<210> 129
<211> 243
<212> PRT
<213> Mus sp.

<400> 129
Asn Glu Gly Ser Glu Arg Glu Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Ala Trp Arg Gln Asn Thr Arg Tyr Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Arg Ala Pro Pro Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65 70 75 80

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

Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln Ala Asp Gly Lys Pro
100 105 110

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
115 120 125

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

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145 150 155 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Ser Pro Gly
165 170 175

```
Thr Gly Ile Trp Gln Ser Ile Asp Val Lys Thr Val Leu Gln Asn Trp
            180                 185                 190

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg
```

<210> 130
<211> 243
<212> PRT
<213> Mus sp.

<400> 130

```
Asn Glu Gly Ser Glu Arg Glu Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                   10                  15

Asn Ala Cys Ala Trp Arg Gln Asn Thr Arg Tyr Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Arg Ala Pro Pro Leu
    50                  55                  60

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

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

Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln Ala Asp Gly Lys Pro
            100                 105                 110

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

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

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160
```

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Ser Pro Gly
165 170 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
195 200 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
210 215 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225 230 235 240

Ser Arg Arg

<210> 131
<211> 352
<212> PRT
<213> Macaca fascicularis

<400> 131
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65 70 75 80

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
115 120 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
130 135 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145 150 155 160

```
Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
                325                 330                 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
            340                 345                 350
```

<210> 132
<211> 352
<212> PRT
<213> Macaca fascicularis

<400> 132

```
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                   10                  15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45
```

```
Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65                  70                  75                  80

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
    130                 135                 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

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

Ser Arg Ala Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320
```

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
325 330 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
340 345 350

<210> 133
<211> 352
<212> PRT
<213> Macaca fascicularis

<400> 133
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

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

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
115 120 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
130 135 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145 150 155 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
165 170 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
195 200 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
210 215 220

```
Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
                325                 330                 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
            340                 345                 350
```

<210> 134
<211> 352
<212> PRT
<213> Macaca fascicularis

<400> 134

```
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                   10                  15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

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

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
115 120 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
130 135 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145 150 155 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
165 170 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
195 200 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
210 215 220

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

Ser Arg Ala Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
245 250 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
260 265 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
275 280 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
290 295 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305 310 315 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
325 330 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
340 345 350

<210> 135
<211> 243
<212> PRT
<213> Macaca fascicularis

<400> 135
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

```
Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65                  70                  75                  80

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
    130                 135                 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg
```

<210> 136
<211> 243
<212> PRT
<213> Macaca fascicularis

<400> 136

```
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                  10                  15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Ala Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

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

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
    130                 135                 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg
```

<210> 137
<211> 381
<212> PRT
<213> Mus sp.

<400> 137
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly
1 5 10 15

Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Ala Pro Pro Glu
20 25 30

Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg Glu Leu
35 40 45

Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg Leu Lys
50 55 60

Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu Pro Lys
65 70 75 80

Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp
85 90 95

Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr
100 105 110

Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln
115 120 125

Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val
130 135 140

Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro
145 150 155 160

Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro
165 170 175

Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His
180 185 190

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

Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln
210 215 220

Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly
225 230 235 240

Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His
245 250 255

Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg
260 265 270

```
Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg Cys Cys
        275                 280                 285

Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
    290                 295                 300

Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln Cys Glu
305                 310                 315                 320

Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln Gln Ala
                325                 330                 335

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
            340                 345                 350

Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile Tyr Gly
        355                 360                 365

Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
    370                 375                 380


<210> 138
<211> 381
<212> PRT
<213> Mus sp.

<400> 138
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly
1               5                   10                  15

Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Ala Pro Pro Glu
            20                  25                  30

Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg Glu Leu
        35                  40                  45

Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg Leu Lys
    50                  55                  60

Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu Pro Lys
65                  70                  75                  80

Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp
                85                  90                  95

Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr
            100                 105                 110

Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln
        115                 120                 125
```

```
Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val
    130                 135                 140

Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro
145                 150                 155                 160

Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro
                165                 170                 175

Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His
            180                 185                 190

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

Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln
    210                 215                 220

Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly
225                 230                 235                 240

Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His
                245                 250                 255

Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Ala Ser Arg Ala
            260                 265                 270

Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg Cys Cys
        275                 280                 285

Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
    290                 295                 300

Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln Cys Glu
305                 310                 315                 320

Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln Gln Ala
                325                 330                 335

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
            340                 345                 350

Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile Tyr Gly
        355                 360                 365

Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
    370                 375                 380
```

<210> 139
<211> 381
<212> PRT
<213> Mus sp.

<400> 139
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly
1 5 10 15

Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Ala Pro Pro Glu
20 25 30

Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg Glu Leu
35 40 45

Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg Leu Lys
50 55 60

Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu Pro Lys
65 70 75 80

Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Ala
85 90 95

Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr
100 105 110

Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln
115 120 125

Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val
130 135 140

Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro
145 150 155 160

Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro
165 170 175

Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His
180 185 190

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

Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln
210 215 220

Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly
225 230 235 240

Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His
245 250 255

Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Ala Ser Arg Ala
260 265 270

```
Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg Cys Cys
        275                 280                 285

Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
    290                 295                 300

Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln Cys Glu
305                 310                 315                 320

Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln Gln Ala
                325                 330                 335

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
            340                 345                 350

Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile Tyr Gly
        355                 360                 365

Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
    370                 375                 380


<210> 140
<211> 381
<212> PRT
<213> Mus sp.

<400> 140
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly
1               5                   10                  15

Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Ala Pro Pro Glu
            20                  25                  30

Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg Glu Leu
        35                  40                  45

Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg Leu Lys
    50                  55                  60

Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu Pro Lys
65                  70                  75                  80

Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp
                85                  90                  95

Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr
            100                 105                 110

Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln
        115                 120                 125
```

```
Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val
    130                 135                 140

Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro
145                 150                 155                 160

Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro
                165                 170                 175

Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His
            180                 185                 190

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

Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln
    210                 215                 220

Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly
225                 230                 235                 240

Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His
                245                 250                 255

Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg
            260                 265                 270

Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg Cys Cys
        275                 280                 285

Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
    290                 295                 300

Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln Cys Glu
305                 310                 315                 320

Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln Gln Ala
                325                 330                 335

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
            340                 345                 350

Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile Tyr Gly
        355                 360                 365

Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
    370                 375                 380
```

<210> 141
<211> 272
<212> PRT
<213> Mus sp.

<400> 141
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly
1 5 10 15

Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Ala Pro Pro Glu
20 25 30

Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg Glu Leu
35 40 45

Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg Leu Lys
50 55 60

Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu Pro Lys
65 70 75 80

Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp
85 90 95

Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr
100 105 110

Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln
115 120 125

Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val
130 135 140

Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro
145 150 155 160

Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro
165 170 175

Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His
180 185 190

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

Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln
210 215 220

Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly
225 230 235 240

Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His
245 250 255

Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg
260 265 270

<210> 142
<211> 272
<212> PRT
<213> Mus sp.

<400> 142
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Gly
1 5 10 15

Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Ala Pro Pro Glu
20 25 30

Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg Glu Leu
35 40 45

Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg Leu Lys
50 55 60

Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu Pro Lys
65 70 75 80

Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Ala
85 90 95

Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr
100 105 110

Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln
115 120 125

Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val
130 135 140

Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro
145 150 155 160

Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro
165 170 175

Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His
180 185 190

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

Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln
210 215 220

Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly
225 230 235 240

Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His
245 250 255

Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg
260 265 270

<210> 143
<211> 1298
<212> PRT
<213> Macaca fascicularis

<400> 143
Met Pro Gly Pro Arg Gly Ala Pro Gly Gly Leu Ala Pro Glu Met Arg
1 5 10 15

Gly Ala Gly Ala Ala Gly Leu Leu Ala Leu Leu Leu Leu Leu Gly Leu
20 25 30

Gly Gly Arg Val Glu Gly Gly Pro Ala Gly Glu Arg Gly Ala Gly Gly
35 40 45

Gly Gly Ala Leu Ala Arg Glu Arg Phe Lys Val Val Phe Ala Pro Val
50 55 60

Ile Cys Lys Arg Thr Cys Leu Lys Gly Gln Cys Arg Asp Ser Cys Gln
65 70 75 80

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

Thr Leu Thr Gly Ser Gly Phe Arg Val Val Val Cys Pro Leu Pro Cys
100 105 110

Met Asn Gly Gly Gln Cys Ser Ser Arg Asn Gln Cys Leu Cys Pro Pro
115 120 125

Asp Phe Thr Gly Arg Phe Cys Gln Val Pro Ala Gly Gly Ala Gly Gly
130 135 140

Gly Thr Gly Gly Ser Gly Pro Gly Leu Ser Arg Ala Gly Ala Leu Ser
145 150 155 160

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

Lys His Ala Ile Tyr Ala Val Gln Val Ile Ala Asp Pro Pro Gly Pro
180 185 190

Gly Glu Gly Pro Pro Ala Gln His Ala Ala Phe Leu Val Pro Leu Gly
195 200 205

Pro Gly Gln Ile Ser Ala Glu Val Gln Ala Pro Pro Pro Val Val Asn
210 215 220

```
Val Arg Val His His Pro Pro Glu Ala Ser Val Gln Val His Arg Ile
225                 230                 235                 240

Glu Ser Ser Asn Ala Glu Gly Ala Ala Pro Ser Gln His Leu Leu Pro
                245                 250                 255

His Pro Lys Pro Ser His Pro Arg Pro Pro Thr Gln Lys Pro Leu Gly
            260                 265                 270

Arg Cys Phe Gln Asp Thr Leu Pro Lys Gln Pro Cys Gly Ser Asn Pro
        275                 280                 285

Leu Pro Gly Leu Thr Lys Gln Glu Asp Cys Cys Gly Ser Ile Gly Thr
    290                 295                 300

Ala Trp Gly Gln Ser Lys Cys His Lys Cys Pro Gln Leu Gln Tyr Thr
305                 310                 315                 320

Gly Val Gln Lys Pro Gly Pro Val Arg Gly Glu Val Gly Ala Asp Cys
                325                 330                 335

Pro Gln Gly Tyr Lys Arg Leu Asn Ser Thr His Cys Gln Asp Ile Asn
            340                 345                 350

Glu Cys Ala Met Pro Gly Val Cys Arg His Gly Asp Cys Leu Asn Asn
        355                 360                 365

Pro Gly Ser Tyr Arg Cys Val Cys Pro Pro Gly His Ser Leu Gly Pro
    370                 375                 380

Ser Arg Thr Gln Cys Ile Ala Asp Lys Pro Glu Glu Lys Ser Leu Cys
385                 390                 395                 400

Phe Arg Leu Val Ser Pro Glu His Gln Cys Gln His Pro Leu Thr Thr
                405                 410                 415

Arg Leu Thr Arg Gln Leu Cys Cys Cys Ser Val Gly Lys Ala Trp Gly
            420                 425                 430

Ala Arg Cys Gln Arg Cys Pro Ala Asp Gly Thr Ala Ala Phe Lys Glu
        435                 440                 445

Ile Cys Pro Ala Gly Lys Gly Tyr His Ile Leu Thr Ser His Gln Thr
    450                 455                 460

Leu Thr Ile Gln Gly Glu Ser Asp Phe Ser Leu Phe Leu His Pro Asp
465                 470                 475                 480

Gly Pro Pro Lys Pro Gln Gln Leu Pro Glu Ser Pro Ser Gln Ala Pro
                485                 490                 495
```

```
Pro Pro Glu Asp Thr Glu Glu Glu Arg Gly Val Thr Thr Asp Ser Pro
            500                 505                 510

Val Ser Glu Glu Arg Ser Val Gln Gln Ser His Pro Thr Ala Thr Thr
        515                 520                 525

Ser Pro Ala Arg Pro Tyr Pro Glu Leu Ile Ser Arg Pro Ser Pro Pro
    530                 535                 540

Thr Met Arg Trp Phe Leu Pro Asp Leu Pro Pro Ser Arg Ser Ala Val
545                 550                 555                 560

Glu Ile Ala Pro Thr Gln Val Thr Glu Thr Asp Glu Cys Arg Leu Asn
                565                 570                 575

Gln Asn Ile Cys Gly His Gly Glu Cys Val Pro Gly Pro Pro Asp Tyr
            580                 585                 590

Ser Cys His Cys Asn Pro Gly Tyr Arg Ser His Pro Gln His Arg Tyr
        595                 600                 605

Cys Val Asp Val Asn Glu Cys Glu Ala Glu Pro Cys Gly Pro Gly Arg
    610                 615                 620

Gly Ile Cys Met Asn Thr Gly Gly Ser Tyr Asn Cys His Cys Asn Arg
625                 630                 635                 640

Gly Tyr Arg Leu His Val Gly Ala Gly Gly Arg Ser Cys Val Asp Leu
                645                 650                 655

Asn Glu Cys Ala Lys Pro His Leu Cys Gly Asp Gly Gly Phe Cys Ile
            660                 665                 670

Asn Phe Pro Gly His Tyr Lys Cys Asn Cys Tyr Pro Gly Tyr Arg Leu
        675                 680                 685

Lys Ala Ser Arg Pro Pro Val Cys Glu Asp Ile Asp Glu Cys Arg Asp
    690                 695                 700

Pro Ser Ser Cys Pro Asp Gly Lys Cys Glu Asn Lys Pro Gly Ser Phe
705                 710                 715                 720

Lys Cys Ile Ala Cys Gln Pro Gly Tyr Arg Ser Gln Gly Gly Gly Ala
                725                 730                 735

Cys Arg Asp Val Asn Glu Cys Ala Glu Gly Ser Pro Cys Ser Pro Gly
            740                 745                 750

Trp Cys Glu Asn Leu Pro Gly Ser Phe Arg Cys Thr Cys Ala Gln Gly
        755                 760                 765
```

```
Tyr Ala Pro Ala Pro Asp Gly Arg Ser Cys Val Asp Val Asp Glu Cys
    770                 775                 780

Glu Ala Gly Asp Val Cys Asp Asn Gly Ile Cys Thr Asn Thr Pro Gly
785                 790                 795                 800

Ser Phe Gln Cys Gln Cys Leu Ser Gly Tyr His Leu Ser Arg Asp Arg
                805                 810                 815

Ser His Cys Glu Asp Ile Asp Glu Cys Asp Phe Pro Ala Ala Cys Ile
            820                 825                 830

Gly Gly Asp Cys Ile Asn Thr Asn Gly Ser Tyr Arg Cys Leu Cys Pro
        835                 840                 845

Gln Gly His Arg Leu Val Gly Gly Arg Lys Cys Gln Asp Ile Asp Glu
    850                 855                 860

Cys Thr Gln Asp Pro Gly Leu Cys Leu Pro His Gly Ala Cys Lys Asn
865                 870                 875                 880

Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly Phe Thr Pro Thr
                885                 890                 895

Gln Asp Gln His Gly Cys Glu Glu Val Glu Gln Pro His His Lys Lys
            900                 905                 910

Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys Asp Ser Val Leu
        915                 920                 925

Ala Thr Asn Val Thr Gln Gln Glu Cys Cys Cys Ser Leu Gly Ala Gly
    930                 935                 940

Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val Tyr Ser Ser Ala
945                 950                 955                 960

Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr Thr Gln Asp Asn
                965                 970                 975

Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp Ile Asp Glu Cys
            980                 985                 990

Met Leu Phe Gly Ala Glu Ile Cys  Lys Glu Gly Lys Cys  Val Asn Thr
        995                 1000                1005

Gln Pro  Gly Tyr Glu Cys Tyr  Cys Lys Gln Gly Phe  Tyr Tyr Asp
    1010                1015                1020

Gly Asn  Leu Leu Glu Cys Val  Asp Val Asp Glu Cys  Leu Asp Glu
    1025                1030                1035
```

```
Ser Asn  Cys Arg Asn Gly Val  Cys Glu Asn Thr Arg  Gly Gly Tyr
    1040                1045                1050

Arg Cys  Ala Cys Thr Pro Pro  Ala Glu Tyr Ser Pro  Ala Gln Arg
    1055                1060                1065

Gln Cys  Leu Ser Pro Glu Glu  Met Asp Val Asp Glu  Cys Gln Asp
    1070                1075                1080

Pro Ala  Ala Cys Arg Pro Gly  Arg Cys Val Asn Leu  Pro Gly Ser
    1085                1090                1095

Tyr Arg  Cys Glu Cys Arg Pro  Pro Trp Val Pro Gly  Pro Ser Gly
    1100                1105                1110

Arg Asp  Cys Gln Leu Pro Glu  Ser Pro Ala Glu Arg  Ala Pro Glu
    1115                1120                1125

Arg Arg  Asp Val Cys Trp Ser  Gln Arg Gly Glu Asp  Gly Met Cys
    1130                1135                1140

Ala Gly  Pro Gln Ala Gly Pro  Ala Leu Thr Phe Asp  Asp Cys Cys
    1145                1150                1155

Cys Arg  Gln Gly Arg Gly Trp  Gly Ala Gln Cys Arg  Pro Cys Pro
    1160                1165                1170

Pro Arg  Gly Ala Gly Ser Gln  Cys Pro Thr Ser Gln  Ser Glu Ser
    1175                1180                1185

Asn Ser  Phe Trp Asp Thr Ser  Pro Leu Leu Leu Gly  Lys Pro Arg
    1190                1195                1200

Arg Asp  Glu Asp Ser Ser Glu  Glu Asp Ser Asp Glu  Cys Arg Cys
    1205                1210                1215

Val Ser  Gly Arg Cys Val Pro  Arg Pro Gly Gly Ala  Val Cys Glu
    1220                1225                1230

Cys Pro  Gly Gly Phe Gln Leu  Asp Ala Ser Arg Ala  Arg Cys Val
    1235                1240                1245

Asp Ile  Asp Glu Cys Arg Glu  Leu Asn Gln Arg Gly  Leu Leu Cys
    1250                1255                1260

Lys Ser  Glu Arg Cys Val Asn  Thr Ser Gly Ser Phe  Arg Cys Val
    1265                1270                1275

Cys Lys  Ala Gly Phe Ala Arg  Ser Arg Pro His Gly  Ala Cys Val
    1280                1285                1290
```

Pro Gln Arg Arg Arg
1295

<210> 144
<211> 1268
<212> PRT
<213> Mus sp.

<400> 144
Met Pro Gly Pro Arg Gly Ala Ala His Gly Leu Ala Pro Ala Met His
1   5   10   15

Gln Ala Gly Ala Leu Gly Leu Leu Ala Leu Leu Leu Leu Ala Leu Leu
            20   25   30

Gly Pro Gly Gly Gly Ala Glu Gly Gly Pro Ala Gly Glu Arg Gly Thr
        35   40   45

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

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

Cys Gln Gln Gly Ser Asn Met Thr Leu Ile Gly Glu Asn Gly His Ser
                85   90   95

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

Pro Cys Met Asn Gly Gly Gln Cys Ser Ser Arg Asn Gln Cys Leu Cys
        115   120   125

Pro Pro Asp Phe Thr Gly Arg Phe Cys Gln Val Pro Ala Ala Gly Thr
    130   135   140

Gly Ala Gly Thr Gly Ser Ser Gly Pro Gly Leu Ala Arg Thr Gly Ala
145   150   155   160

Met Ser Thr Gly Pro Leu Pro Pro Leu Ala Pro Glu Gly Glu Ser Val
                165   170   175

Ala Ser Lys His Ala Ile Tyr Ala Val Gln Val Ile Ala Asp Pro Pro
            180   185   190

Gly Pro Gly Glu Gly Pro Pro Ala Gln His Ala Ala Phe Leu Val Pro
        195   200   205

Leu Gly Pro Gly Gln Ile Ser Ala Glu Val Gln Ala Pro Pro Pro Val
    210   215   220

```
Val Asn Val Arg Val His His Pro Pro Glu Ala Ser Val Gln Val His
225                 230                 235                 240

Arg Ile Glu Gly Pro Asn Ala Glu Gly Pro Ala Ser Ser Gln His Leu
                245                 250                 255

Leu Pro His Pro Lys Pro Pro His Pro Arg Pro Pro Thr Gln Lys Pro
            260                 265                 270

Leu Gly Arg Cys Phe Gln Asp Thr Leu Pro Lys Gln Pro Cys Gly Ser
        275                 280                 285

Asn Pro Leu Pro Gly Leu Thr Lys Gln Glu Asp Cys Cys Gly Ser Ile
    290                 295                 300

Gly Thr Ala Trp Gly Gln Ser Lys Cys His Lys Cys Pro Gln Leu Gln
305                 310                 315                 320

Tyr Thr Gly Val Gln Lys Pro Val Pro Val Arg Gly Glu Val Gly Ala
                325                 330                 335

Asp Cys Pro Gln Gly Tyr Lys Arg Leu Asn Ser Thr His Cys Gln Asp
            340                 345                 350

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

Asn Asn Pro Gly Ser Tyr Arg Cys Val Cys Pro Pro Gly His Ser Leu
    370                 375                 380

Gly Pro Leu Ala Ala Gln Cys Ile Ala Asp Lys Pro Glu Glu Lys Ser
385                 390                 395                 400

Leu Cys Phe Arg Leu Val Ser Thr Glu His Gln Cys Gln His Pro Leu
                405                 410                 415

Thr Thr Arg Leu Thr Arg Gln Leu Cys Cys Cys Ser Val Gly Lys Ala
            420                 425                 430

Trp Gly Ala Arg Cys Gln Arg Cys Pro Ala Asp Gly Thr Ala Ala Phe
        435                 440                 445

Lys Glu Ile Cys Pro Gly Lys Gly Tyr His Ile Leu Thr Ser His Gln
    450                 455                 460

Thr Leu Thr Ile Gln Gly Glu Ser Asp Phe Ser Leu Phe Leu His Pro
465                 470                 475                 480

Asp Gly Pro Pro Lys Pro Gln Gln Leu Pro Glu Ser Pro Ser Arg Ala
                485                 490                 495
```

```
Pro Pro Leu Glu Asp Thr Glu Glu Glu Arg Gly Val Thr Met Asp Pro
            500                 505                 510

Pro Val Ser Glu Glu Arg Ser Val Gln Gln Ser His Pro Thr Thr Thr
        515                 520                 525

Thr Ser Pro Pro Arg Pro Tyr Pro Glu Leu Ile Ser Arg Pro Ser Pro
    530                 535                 540

Pro Thr Phe His Arg Phe Leu Pro Asp Leu Pro Pro Ser Arg Ser Ala
545                 550                 555                 560

Val Glu Ile Ala Pro Thr Gln Val Thr Glu Thr Asp Glu Cys Arg Leu
                565                 570                 575

Asn Gln Asn Ile Cys Gly His Gly Gln Cys Val Pro Gly Pro Ser Asp
            580                 585                 590

Tyr Ser Cys His Cys Asn Ala Gly Tyr Arg Ser His Pro Gln His Arg
        595                 600                 605

Tyr Cys Val Asp Val Asn Glu Cys Glu Ala Glu Pro Cys Gly Pro Gly
    610                 615                 620

Lys Gly Ile Cys Met Asn Thr Gly Gly Ser Tyr Asn Cys His Cys Asn
625                 630                 635                 640

Arg Gly Tyr Arg Leu His Val Gly Ala Gly Gly Arg Ser Cys Val Asp
                645                 650                 655

Leu Asn Glu Cys Ala Lys Pro His Leu Cys Gly Asp Gly Gly Phe Cys
            660                 665                 670

Ile Asn Phe Pro Gly His Tyr Lys Cys Asn Cys Tyr Pro Gly Tyr Arg
        675                 680                 685

Leu Lys Ala Ser Arg Pro Pro Ile Cys Glu Asp Ile Asp Glu Cys Arg
    690                 695                 700

Asp Pro Ser Thr Cys Pro Asp Gly Lys Cys Glu Asn Lys Pro Gly Ser
705                 710                 715                 720

Phe Lys Cys Ile Ala Cys Gln Pro Gly Tyr Arg Ser Gln Gly Gly Gly
                725                 730                 735

Ala Cys Arg Asp Val Asn Glu Cys Ser Glu Gly Thr Pro Cys Ser Pro
            740                 745                 750

Gly Trp Cys Glu Asn Leu Pro Gly Ser Tyr Arg Cys Thr Cys Ala Gln
        755                 760                 765
```

```
Tyr Glu Pro Ala Gln Asp Gly Leu Ser Cys Ile Asp Val Asp Glu Cys
    770                 775                 780

Glu Ala Gly Lys Val Cys Gln Asp Gly Ile Cys Thr Asn Thr Pro Gly
785                 790                 795                 800

Ser Phe Gln Cys Gln Cys Leu Ser Gly Tyr His Leu Ser Arg Asp Arg
                805                 810                 815

Ser Arg Cys Glu Asp Ile Asp Glu Cys Asp Phe Pro Ala Ala Cys Ile
            820                 825                 830

Gly Gly Asp Cys Ile Asn Thr Asn Gly Ser Tyr Arg Cys Leu Cys Pro
        835                 840                 845

Leu Gly His Arg Leu Val Gly Gly Arg Lys Cys Lys Lys Asp Ile Asp
    850                 855                 860

Glu Cys Ser Gln Asp Pro Gly Leu Cys Leu Pro His Ala Cys Glu Asn
865                 870                 875                 880

Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly Phe Thr Leu Thr
                885                 890                 895

Gln Asp Gln His Gly Cys Glu Glu Val Glu Gln Pro His His Lys Lys
            900                 905                 910

Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys Asp Ser Val Leu
        915                 920                 925

Ala Thr Asn Val Thr Gln Gln Glu Cys Cys Cys Ser Leu Gly Ala Gly
    930                 935                 940

Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val Tyr Ser Ser Ala
945                 950                 955                 960

Glu Phe His Ser Leu Val Pro Asp Gly Lys Arg Leu His Ser Gly Gln
                965                 970                 975

Gln His Cys Glu Leu Cys Ile Pro Ala His Arg Asp Ile Asp Glu Cys
            980                 985                 990

Ile Leu Phe Gly Ala Glu Ile Cys  Lys Glu Gly Lys Cys  Val Asn Thr
        995                 1000                1005

Gln Pro  Gly Tyr Glu Cys Tyr  Cys Lys Gln Gly Phe  Tyr Tyr Asp
    1010                1015                1020

Gly Asn  Leu Leu Glu Cys Val  Asp Val Asp Glu Cys  Leu Asp Glu
    1025                1030                1035
```

```
Ser Asn  Cys Arg Asn Gly Val  Cys Glu Asn Thr Arg  Gly Gly Tyr
    1040                1045                1050

Arg Cys  Ala Cys Thr Pro Pro  Ala Glu Tyr Ser Pro  Ala Gln Ala
    1055                1060                1065

Gln Cys  Leu Ile Pro Glu Arg  Trp Ser Thr Pro Gln  Arg Asp Val
    1070                1075                1080

Lys Cys  Ala Gly Ala Ser Glu  Glu Arg Thr Ala Cys  Val Trp Gly
    1085                1090                1095

Pro Trp  Ala Gly Pro Ala Leu  Thr Phe Asp Asp Cys  Cys Cys Arg
    1100                1105                1110

Gln Pro  Arg Leu Gly Thr Gln  Cys Arg Pro Cys Pro  Pro Arg Gly
    1115                1120                1125

Thr Gly  Ser Gln Cys Pro Thr  Ser Gln Ser Glu Ser  Asn Ser Phe
    1130                1135                1140

Trp Asp  Thr Ser Pro Leu Leu  Leu Gly Lys Ser Pro  Arg Asp Glu
    1145                1150                1155

Asp Ser  Ser Glu Glu Asp Ser  Asp Glu Cys Arg Cys  Val Ser Gly
    1160                1165                1170

Arg Cys  Val Pro Arg Pro Gly  Gly Ala Val Cys Glu  Cys Pro Gly
    1175                1180                1185

Gly Phe  Gln Leu Asp Ala Ser  Arg Ala Arg Cys Val  Asp Ile Asp
    1190                1195                1200

Glu Cys  Arg Glu Leu Asn Gln  Arg Gly Leu Leu Cys  Lys Ser Glu
    1205                1210                1215

Arg Cys  Val Asn Thr Ser Gly  Ser Phe Arg Cys Val  Cys Lys Ala
    1220                1225                1230

Gly Phe  Thr Arg Ser Arg Pro  His Gly Pro Ala Cys  Leu Ser Ala
    1235                1240                1245

Ala Ala  Asp Asp Ala Ala Ile  Ala His Thr Ser Val  Ile Asp His
    1250                1255                1260

Arg Gly  Tyr Phe His
    1265
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<210> 145
<211> 1719
<212> PRT
<213> Macaca fascicularis

<400> 145
Met Ala Gly Ala Trp Leu Arg Trp Gly Leu Leu Leu Trp Ala Gly Leu
1 5 10 15

Leu Ala Ser Ser Ala His Gly Arg Leu Arg Arg Ile Thr Tyr Val Val
20 25 30

His Pro Gly Pro Gly Leu Ala Ala Gly Ala Leu Pro Leu Ser Gly Pro
35 40 45

Pro Arg Ser Arg Thr Phe Asn Val Ala Leu Asn Ala Arg Tyr Ser Arg
50 55 60

Ser Ser Ala Ala Ala Gly Ala Pro Ser Arg Ala Ser Pro Gly Val Pro
65 70 75 80

Ser Glu Arg Thr Arg Arg Thr Ser Lys Pro Gly Gly Ala Ala Leu Gln
85 90 95

Gly Leu Arg Pro Pro Pro Pro Pro Pro Pro Glu Pro Ala Arg Pro Ala
100 105 110

Ala Pro Gly Gly Gln Leu His Pro Lys Pro Gly Gly His Pro Ala Ala
115 120 125

Ala Pro Phe Ala Lys Gln Gly Arg Gln Val Val Arg Ser Lys Val Pro
130 135 140

Gln Glu Thr Gln Ser Ser Gly Gly Ser Arg Leu Gln Val His Gln Lys
145 150 155 160

Gln Gln Leu Gln Gly Val Asn Val Cys Gly Gly Arg Cys Cys His Gly
165 170 175

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

Pro Pro Cys Gln Asn Gly Gly Met Cys Leu Arg Pro Gln Leu Cys Val
195 200 205

Cys Lys Pro Gly Thr Lys Gly Lys Ala Cys Glu Thr Ile Ala Ala Gln
210 215 220

Asp Thr Ser Ser Pro Val Phe Gly Gly Gln Ser Pro Gly Ala Ala Ser
225 230 235 240

Ser Trp Gly Pro Pro Glu Gln Ala Ala Lys His Thr Ser Ser Lys Lys
245 250 255

Ala Asp Thr Leu Pro Arg Val Ser Pro Val Ala Gln Met Thr Leu Thr
260 265 270

```
Leu Lys Pro Lys Pro Ser Val Gly Leu Pro Gln Gln Ile His Ser Gln
        275                 280                 285

Val Thr Pro Leu Ser Ser Gln Ser Val Met Ile His His Ser Gln Thr
    290                 295                 300

Gln Glu Tyr Val Leu Lys Pro Lys Tyr Phe Pro Ala Gln Lys Gly Ile
305                 310                 315                 320

Ser Gly Glu Gln Ser Thr Glu Gly Ser Phe Pro Leu Arg Tyr Val Gln
                325                 330                 335

Asp Gln Val Ala Ala Pro Phe Gln Leu Ser Asn His Thr Gly Arg Ile
            340                 345                 350

Lys Val Val Phe Thr Pro Ser Ile Cys Lys Val Thr Cys Thr Lys Gly
        355                 360                 365

Ser Cys Gln Asn Ser Cys Glu Lys Gly Asn Thr Thr Thr Leu Ile Ser
    370                 375                 380

Glu Asn Gly His Ala Ala Asp Thr Leu Thr Ala Thr Asn Phe Arg Val
385                 390                 395                 400

Val Leu Cys His Leu Pro Cys Met Asn Gly Gly Gln Cys Ser Ser Arg
                405                 410                 415

Asp Lys Cys Gln Cys Pro Pro Asn Phe Thr Gly Lys Leu Cys Gln Ile
            420                 425                 430

Pro Val His Gly Ala Ser Val Pro Lys Leu Tyr Gln His Ser Gln Gln
        435                 440                 445

Pro Gly Lys Ala Leu Gly Thr His Val Ile His Ser Thr His Thr Leu
    450                 455                 460

Pro Leu Thr Val Thr Ser Gln Gln Gly Val Lys Val Lys Phe Pro Pro
465                 470                 475                 480

Asn Ile Val Asn Ile His Val Lys His Pro Pro Glu Ala Ser Val Gln
                485                 490                 495

Ile His Gln Val Ser Arg Ile Asp Gly Pro Thr Gly Gln Lys Thr Lys
            500                 505                 510

Glu Ala Gln Pro Gly Gln Ser Gln Val Ser Tyr Gln Gly Leu Pro Val
        515                 520                 525

Gln Lys Thr Gln Thr Ile His Ser Thr Tyr Ser His Gln Gln Val Ile
    530                 535                 540
```

```
Pro His Val Tyr Pro Val Ala Ala Lys Thr Gln Leu Gly Arg Cys Phe
545                 550                 555                 560

Gln Glu Thr Ile Gly Ser Gln Cys Gly Lys Ala Leu Pro Gly Leu Ser
                565                 570                 575

Lys Gln Glu Asp Cys Cys Gly Thr Val Gly Thr Ser Trp Gly Phe Asn
            580                 585                 590

Lys Cys Gln Lys Cys Pro Lys Lys Pro Ser Tyr His Gly Tyr Asn Gln
        595                 600                 605

Met Met Glu Cys Leu Pro Gly Tyr Lys Arg Val Asn Asn Thr Phe Cys
    610                 615                 620

Gln Asp Ile Asn Glu Cys Gln Leu Gln Gly Val Cys Pro Asn Gly Glu
625                 630                 635                 640

Cys Leu Asn Thr Met Gly Ser Tyr Arg Cys Thr Cys Lys Ile Gly Phe
                645                 650                 655

Gly Pro Asp Pro Thr Phe Ser Ser Cys Val Pro Asp Pro Pro Val Ile
            660                 665                 670

Ser Glu Glu Lys Gly Pro Cys Tyr Arg Leu Val Ser Ser Gly Arg Gln
        675                 680                 685

Cys Met His Pro Leu Ser Val His Leu Thr Lys Gln Leu Cys Cys Cys
    690                 695                 700

Ser Val Gly Lys Ala Trp Gly Pro His Cys Glu Lys Cys Pro Leu Pro
705                 710                 715                 720

Gly Thr Ala Ala Phe Lys Glu Ile Cys Pro Gly Gly Met Gly Tyr Thr
                725                 730                 735

Val Ser Gly Val His Arg Arg Arg Pro Ile His His His Val Gly Lys
            740                 745                 750

Gly Pro Val Phe Val Lys Pro Lys Asn Thr Gln Pro Val Ala Lys Ser
        755                 760                 765

Thr His Pro Pro Pro Leu Pro Ala Lys Glu Glu Pro Val Glu Ala Leu
    770                 775                 780

Thr Phe Ser Arg Glu His Gly Pro Gly Val Ala Glu Pro Glu Val Ala
785                 790                 795                 800

Thr Ala Pro Pro Glu Lys Glu Ile Pro Ser Leu Asp Gln Glu Lys Thr
                805                 810                 815
```

```
Lys Leu Glu Pro Gly Gln Pro Gln Leu Ser Pro Gly Ile Ser Thr Ile
            820                 825                 830

His Leu His Pro Gln Phe Pro Val Val Ile Glu Lys Thr Ser Pro Pro
        835                 840                 845

Val Pro Val Glu Val Ala Pro Glu Ala Ser Thr Ser Ser Ala Ser Gln
    850                 855                 860

Val Ile Ala Pro Thr Gln Val Thr Glu Ile Asn Glu Cys Thr Val Asn
865                 870                 875                 880

Pro Asp Ile Cys Gly Ala Gly His Cys Ile Asn Leu Pro Val Arg Tyr
                885                 890                 895

Thr Cys Ile Cys Tyr Glu Gly Tyr Lys Phe Ser Glu Gln Gln Arg Lys
            900                 905                 910

Cys Val Asp Ile Asp Glu Cys Thr Gln Val Gln His Leu Cys Ser Gln
        915                 920                 925

Gly Arg Cys Glu Asn Thr Glu Gly Ser Phe Leu Cys Ile Cys Pro Ala
    930                 935                 940

Gly Phe Met Ala Ser Glu Glu Gly Thr Asn Cys Ile Asp Val Asp Glu
945                 950                 955                 960

Cys Leu Arg Pro Asp Val Cys Gly Glu Gly His Cys Val Asn Thr Val
                965                 970                 975

Gly Ala Phe Arg Cys Glu Tyr Cys Asp Ser Gly Tyr Arg Met Thr Gln
            980                 985                 990

Arg Gly Arg Cys Glu Asp Ile Asp  Glu Cys Leu Asn Pro  Ser Thr Cys
        995                 1000                1005

Pro Asp  Glu Gln Cys Val Asn  Ser Pro Gly Ser Tyr  Gln Cys Val
    1010                1015                1020

Pro Cys  Thr Glu Gly Phe Arg  Gly Trp Asn Gly Gln  Cys Leu Asp
    1025                1030                1035

Val Asp  Glu Cys Leu Glu Pro  Asn Val Cys Thr Asn  Gly Asp Cys
    1040                1045                1050

Ser Asn  Leu Glu Gly Ser Tyr  Met Cys Ser Cys His  Lys Gly Tyr
    1055                1060                1065

Thr Arg  Thr Pro Asp His Lys  His Cys Lys Asp Ile  Asp Glu Cys
    1070                1075                1080
```

```
Gln Gln  Gly Asn Leu Cys Val  Asn Gly Gln Cys Lys  Asn Thr Glu
    1085                1090                1095

Gly Ser  Phe Arg Cys Thr Cys  Gly Gln Gly Tyr Gln  Leu Ser Ala
    1100                1105                1110

Ala Lys  Asp Gln Cys Glu Asp  Ile Asp Glu Cys Gln  His His His
    1115                1120                1125

Leu Cys  Ala His Gly Gln Cys  Arg Asn Thr Glu Gly  Ser Phe Gln
    1130                1135                1140

Cys Val  Cys Asp Gln Gly Tyr  Arg Ala Ser Gly Leu  Gly Asp His
    1145                1150                1155

Cys Glu  Asp Ile Asn Glu Cys  Leu Glu Asp Lys Ser  Val Cys Gln
    1160                1165                1170

Arg Gly  Asp Cys Ile Asn Thr  Ala Gly Ser Tyr Asp  Cys Thr Cys
    1175                1180                1185

Pro Asp  Gly Phe Gln Leu Asp  Asp Asn Lys Thr Cys  Gln Asp Ile
    1190                1195                1200

Asn Glu  Cys Glu His Pro Gly  Leu Cys Gly Pro Gln  Gly Glu Cys
    1205                1210                1215

Leu Asn  Thr Glu Gly Ser Phe  His Cys Val Cys Gln  Gln Gly Phe
    1220                1225                1230

Ser Ile  Ser Ala Asp Gly Arg  Thr Cys Glu Asp Ile  Asp Glu Cys
    1235                1240                1245

Val Asn  Asn Thr Val Cys Asp  Ser His Gly Phe Cys  Asp Asn Thr
    1250                1255                1260

Ala Gly  Ser Phe Arg Cys Leu  Cys Tyr Gln Gly Phe  Gln Ala Pro
    1265                1270                1275

Gln Asp  Gly Gln Gly Cys Val  Asp Val Asn Glu Cys  Glu Leu Leu
    1280                1285                1290

Ser Gly  Val Cys Gly Glu Ala  Phe Cys Glu Asn Val  Glu Gly Ser
    1295                1300                1305

Phe Leu  Cys Val Cys Ala Asp  Glu Asn Gln Glu Tyr  Ser Pro Met
    1310                1315                1320

Thr Gly  Gln Cys Arg Ser Arg  Thr Ser Thr Asp Leu  Asp Val Glu
    1325                1330                1335
```

```
Gln Pro  Lys Glu Glu Lys Lys  Glu Cys Tyr Tyr Asn  Leu Asn Asp
    1340                1345                1350

Ala Ser  Leu Cys Asp Asn Val  Leu Ala Pro Asn Val  Thr Lys Gln
    1355                1360                1365

Glu Cys  Cys Cys Thr Ser Gly  Ala Gly Trp Gly Asp  Asn Cys Glu
    1370                1375                1380

Ile Phe  Pro Cys Pro Val Leu  Gly Thr Ala Glu Phe  Thr Glu Met
    1385                1390                1395

Cys Pro  Lys Gly Lys Gly Phe  Val Pro Ala Gly Glu  Ser Ser Ser
    1400                1405                1410

Glu Ala  Gly Gly Glu Asn Tyr  Lys Asp Ala Asp Glu  Cys Leu Leu
    1415                1420                1425

Phe Gly  Gln Glu Ile Cys Lys  Asn Gly Phe Cys Leu  Asn Thr Arg
    1430                1435                1440

Pro Gly  Tyr Glu Cys Tyr Cys  Lys Gln Gly Thr Tyr  Tyr Asp Pro
    1445                1450                1455

Val Lys  Leu Gln Cys Phe Asp  Met Asp Glu Cys Gln  Asp Pro Ser
    1460                1465                1470

Ser Cys  Ile Asp Gly Gln Cys  Val Asn Thr Glu Gly  Ser Tyr Asn
    1475                1480                1485

Cys Phe  Cys Thr His Pro Met  Val Leu Asp Ala Ser  Glu Lys Arg
    1490                1495                1500

Cys Ile  Arg Pro Ala Glu Ser  Asn Glu Gln Ile Glu  Glu Thr Asp
    1505                1510                1515

Val Tyr  Gln Asp Leu Cys Trp  Glu His Leu Ser Asp  Glu Tyr Val
    1520                1525                1530

Cys Ser  Arg Pro Leu Val Gly  Lys Gln Thr Thr Tyr  Thr Glu Cys
    1535                1540                1545

Cys Cys  Leu Tyr Gly Glu Ala  Trp Gly Met Gln Cys  Ala Leu Cys
    1550                1555                1560

Pro Met  Lys Asp Ser Asp Asp  Tyr Ala Gln Leu Cys  Asn Ile Pro
    1565                1570                1575

Val Thr  Gly Arg Arg Gln Pro  Tyr Gly Arg Asp Ala  Leu Val Asp
    1580                1585                1590
```

```
Phe Ser  Glu Gln Tyr Ala Pro  Glu Ala Asp Pro Tyr  Phe Ile Gln
    1595                 1600                 1605


Asp Arg  Phe Leu Asn Ser Phe  Glu Glu Leu Gln Ala  Glu Glu Cys
    1610                 1615                 1620


Gly Ile  Leu Asn Gly Cys Glu  Asn Gly Arg Cys Val  Arg Val Gln
    1625                 1630                 1635


Glu Gly  Tyr Thr Cys Asp Cys  Phe Asp Gly Tyr His  Leu Asp Thr
    1640                 1645                 1650


Ala Lys  Met Thr Cys Val Asp  Val Asn Glu Cys Asp  Glu Leu Asn
    1655                 1660                 1665


Asn Arg  Met Ser Leu Cys Lys  Asn Ala Lys Cys Ile  Asn Thr Glu
    1670                 1675                 1680


Gly Ser  Tyr Lys Cys Leu Cys  Leu Pro Gly Tyr Val  Pro Ser Asp
    1685                 1690                 1695


Lys Pro  Asn Tyr Cys Thr Pro  Leu Asn Thr Ala Leu  Asn Leu Glu
    1700                 1705                 1710


Lys Asp  Ser Asp Leu Glu
    1715
```

<210> 146
<211> 1374
<212> PRT
<213> Mus sp.

<400> 146

```
Asn His Thr Gly Arg Ile Lys Val Val Phe Thr Pro Ser Ile Cys Lys
1               5                  10                  15


Val Thr Cys Thr Lys Gly Asn Cys Gln Asn Ser Cys Gln Lys Gly Asn
            20                  25                  30


Thr Thr Thr Leu Ile Ser Glu Asn Gly His Ala Ala Asp Thr Leu Thr
        35                  40                  45


Ala Thr Asn Phe Arg Val Val Ile Cys His Leu Pro Cys Met Asn Gly
    50                  55                  60


Gly Gln Cys Ser Ser Arg Asp Lys Cys Gln Cys Pro Pro Asn Phe Thr
65                  70                  75                  80


Gly Lys Leu Cys Gln Ile Pro Val Leu Gly Ala Ser Met Pro Lys Leu
                85                  90                  95
```

```
Tyr Gln His Ala Gln Gln Gln Gly Lys Ala Leu Gly Ser His Val Ile
            100                 105                 110

His Ser Thr His Thr Leu Pro Leu Thr Met Thr Ser Gln Gln Gly Val
        115                 120                 125

Lys Val Lys Phe Pro Pro Asn Ile Val Asn Ile His Val Lys His Pro
    130                 135                 140

Pro Glu Ala Ser Val Gln Ile His Gln Val Ser Arg Ile Asp Ser Pro
145                 150                 155                 160

Gly Gly Gln Lys Val Lys Glu Ala Gln Pro Gly Gln Ser Gln Val Ser
                165                 170                 175

Tyr Gln Gly Leu Pro Val Gln Lys Thr Gln Thr Val His Ser Thr Tyr
            180                 185                 190

Ser His Gln Gln Leu Ile Pro His Val Tyr Pro Val Ala Ala Lys Thr
        195                 200                 205

Gln Leu Gly Arg Cys Phe Gln Glu Thr Ile Gly Ser Gln Cys Gly Lys
    210                 215                 220

Ala Leu Pro Gly Leu Ser Lys Gln Glu Asp Cys Cys Gly Thr Val Gly
225                 230                 235                 240

Thr Ser Trp Gly Phe Asn Lys Cys Gln Lys Cys Pro Lys Lys Gln Ser
                245                 250                 255

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

Val Asn Asn Thr Phe Cys Gln Asp Ile Asn Glu Cys Gln Leu Gln Gly
        275                 280                 285

Val Cys Pro Asn Gly Glu Cys Leu Asn Thr Met Gly Ser Tyr Arg Cys
    290                 295                 300

Ser Cys Lys Met Gly Phe Gly Pro Asp Pro Thr Phe Ser Ser Cys Val
305                 310                 315                 320

Pro Asp Pro Pro Val Ile Ser Glu Glu Lys Gly Pro Cys Tyr Arg Leu
                325                 330                 335

Val Ser Pro Gly Arg His Cys Met His Pro Leu Ser Val His Leu Thr
            340                 345                 350

Lys Gln Ile Cys Cys Cys Ser Val Gly Lys Ala Trp Gly Pro His Cys
        355                 360                 365
```

```
Glu Lys Cys Pro Leu Pro Gly Thr Ala Ala Phe Lys Glu Ile Cys Pro
    370                 375                 380

Gly Gly Met Gly Tyr Thr Val Ser Gly Val His Arg Arg Arg Pro Ile
385                 390                 395                 400

His Gln His Ile Gly Lys Glu Ala Val Tyr Val Lys Pro Lys Asn Thr
                405                 410                 415

Gln Pro Val Ala Lys Ser Thr His Pro Pro Pro Leu Pro Ala Lys Glu
            420                 425                 430

Glu Pro Val Glu Ala Leu Thr Ser Ser Trp Glu His Gly Pro Arg Gly
        435                 440                 445

Ala Glu Pro Glu Val Val Thr Ala Pro Pro Glu Lys Glu Ile Pro Ser
    450                 455                 460

Leu Asp Gln Glu Lys Thr Arg Leu Glu Pro Gly Gln Pro Gln Leu Ser
465                 470                 475                 480

Pro Gly Val Ser Thr Ile His Leu His Pro Gln Phe Pro Val Val Val
                485                 490                 495

Glu Lys Thr Ser Pro Pro Val Pro Val Glu Val Ala Pro Glu Ala Ser
            500                 505                 510

Thr Ser Ser Ala Ser Gln Val Ile Ala Pro Thr Gln Val Thr Glu Ile
        515                 520                 525

Asn Glu Cys Thr Val Asn Pro Asp Ile Cys Gly Ala Gly His Cys Ile
    530                 535                 540

Asn Leu Pro Val Arg Tyr Thr Cys Ile Cys Tyr Glu Gly Tyr Lys Phe
545                 550                 555                 560

Ser Glu Gln Leu Arg Lys Cys Val Asp Ile Asp Glu Cys Ala Gln Val
                565                 570                 575

Arg His Leu Cys Ser Gln Gly Arg Cys Glu Asn Thr Glu Gly Ser Phe
            580                 585                 590

Leu Cys Val Cys Pro Ala Gly Phe Met Ala Ser Glu Glu Gly Thr Asn
        595                 600                 605

Cys Ile Asp Val Asp Glu Cys Leu Arg Pro Asp Met Cys Arg Asp Gly
    610                 615                 620

Arg Cys Ile Asn Thr Ala Gly Ala Phe Arg Cys Glu Tyr Cys Asp Ser
625                 630                 635                 640
```

```
Gly Tyr Arg Met Ser Arg Arg Gly Tyr Cys Glu Asp Ile Asp Glu Cys
                645                 650                 655

Leu Lys Pro Ser Thr Cys Pro Glu Glu Gln Cys Val Asn Thr Pro Gly
            660                 665                 670

Ser Tyr Gln Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp Asn Gly
        675                 680                 685

Gln Cys Leu Asp Val Asp Glu Cys Leu Gln Pro Lys Val Cys Thr Asn
    690                 695                 700

Gly Ser Cys Thr Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys His Arg
705                 710                 715                 720

Gly Tyr Ser Pro Thr Pro Asp His Arg His Cys Gln Asp Ile Asp Glu
                725                 730                 735

Cys Gln Gln Gly Asn Leu Cys Met Asn Gly Gln Cys Arg Asn Thr Asp
            740                 745                 750

Gly Ser Phe Arg Cys Thr Cys Gly Gln Gly Tyr Gln Leu Ser Ala Ala
        755                 760                 765

Lys Asp Gln Cys Glu Asp Ile Asp Glu Cys Glu His His His Leu Cys
    770                 775                 780

Ser His Gly Gln Cys Arg Asn Thr Glu Gly Ser Phe Gln Cys Val Cys
785                 790                 795                 800

Asn Gln Gly Tyr Arg Ala Ser Val Leu Gly Asp His Cys Glu Asp Ile
                805                 810                 815

Asn Glu Cys Leu Glu Asp Ser Ser Val Cys Gln Gly Gly Asp Cys Ile
            820                 825                 830

Asn Thr Ala Gly Ser Tyr Asp Cys Thr Cys Pro Asp Gly Phe Gln Leu
        835                 840                 845

Asn Asp Asn Lys Gly Cys Gln Asp Ile Asn Glu Cys Ala Gln Pro Gly
    850                 855                 860

Leu Cys Gly Ser His Gly Glu Cys Leu Asn Thr Gln Gly Ser Phe His
865                 870                 875                 880

Cys Val Cys Glu Gln Gly Phe Ser Ile Ser Ala Asp Gly Arg Thr Cys
                885                 890                 895

Glu Asp Ile Asp Glu Cys Val Asn Asn Thr Val Cys Asp Ser His Gly
            900                 905                 910
```

```
Phe Cys Asp Asn Thr Ala Gly Ser Phe Arg Cys Leu Cys Tyr Gln Gly
        915                 920                 925

Phe Gln Ala Pro Gln Asp Gly Gln Gly Cys Val Asp Val Asn Glu Cys
    930                 935                 940

Glu Leu Leu Ser Gly Val Cys Gly Glu Ala Phe Cys Glu Asn Val Glu
945                 950                 955                 960

Gly Ser Phe Leu Cys Val Cys Ala Asp Glu Asn Gln Glu Tyr Ser Pro
                965                 970                 975

Met Thr Gly Gln Cys Arg Ser Arg Val Thr Glu Asp Ser Gly Val Asp
            980                 985                 990

Arg Gln Pro Arg Glu Glu Lys Lys  Glu Cys Tyr Tyr Asn  Leu Asn Asp
        995                 1000                1005

Ala Ser  Leu Cys Asp Asn Val  Leu Ala Pro Asn Val  Thr Lys Gln
    1010                1015                1020

Glu Cys  Cys Cys Thr Ser Gly  Ala Gly Trp Gly Asp  Asn Cys Glu
    1025                1030                1035

Ile Phe  Pro Cys Pro Val Gln  Gly Thr Ala Glu Phe  Thr Glu Met
    1040                1045                1050

Cys Pro  Arg Gly Lys Gly Leu  Val Pro Ala Gly Glu  Ser Ser Tyr
    1055                1060                1065

Asp Thr  Gly Gly Glu Asn Tyr  Lys Asp Ala Asp Glu  Cys Leu Leu
    1070                1075                1080

Phe Gly  Glu Glu Ile Cys Lys  Asn Gly Tyr Cys Leu  Asn Thr Gln
    1085                1090                1095

Pro Gly  Tyr Glu Cys Tyr Cys  Lys Gln Gly Thr Tyr  Tyr Asp Pro
    1100                1105                1110

Val Lys  Leu Gln Cys Phe Asp  Met Asp Glu Cys Gln  Asp Pro Asn
    1115                1120                1125

Ser Cys  Ile Asp Gly Gln Cys  Val Asn Thr Glu Gly  Ser Tyr Asn
    1130                1135                1140

Cys Phe  Cys Thr His Pro Met  Val Leu Asp Ala Ser  Glu Lys Arg
    1145                1150                1155

Cys Val  Gln Pro Thr Glu Ser  Asn Glu Gln Ile Glu  Glu Thr Asp
    1160                1165                1170
```

Val Tyr Gln Asp Leu Cys Trp Glu His Leu Ser Glu Glu Tyr Val
1175 1180 1185

Cys Ser Arg Pro Leu Val Gly Lys Gln Thr Thr Tyr Thr Glu Cys
1190 1195 1200

Cys Cys Leu Tyr Gly Glu Ala Trp Gly Met Gln Cys Ala Leu Cys
1205 1210 1215

Pro Met Lys Asp Ser Asp Asp Tyr Ala Gln Leu Cys Asn Ile Pro
1220 1225 1230

Val Thr Gly Arg Arg Arg Pro Tyr Gly Arg Asp Ala Leu Val Asp
1235 1240 1245

Phe Ser Glu Gln Tyr Gly Pro Glu Thr Asp Pro Tyr Phe Ile Gln
1250 1255 1260

Asp Arg Phe Leu Asn Ser Phe Glu Glu Leu Gln Ala Glu Glu Cys
1265 1270 1275

Gly Ile Leu Asn Gly Cys Glu Asn Gly Arg Cys Val Arg Val Gln
1280 1285 1290

Glu Gly Tyr Thr Cys Asp Cys Phe Asp Gly Tyr His Leu Asp Met
1295 1300 1305

Ala Lys Met Thr Cys Val Asp Val Asn Glu Cys Ser Glu Leu Asn
1310 1315 1320

Asn Arg Met Ser Leu Cys Lys Asn Ala Lys Cys Ile Asn Thr Glu
1325 1330 1335

Gly Ser Tyr Lys Cys Leu Cys Leu Pro Gly Tyr Ile Pro Ser Asp
1340 1345 1350

Lys Pro Asn Tyr Cys Thr Pro Leu Asn Ser Ala Leu Asn Leu Asp
1355 1360 1365

Lys Glu Ser Asp Leu Glu
1370

<210> 147
<211> 646
<212> PRT
<213> Mus sp.

<400> 147
Ile Ser Gln Arg Arg Glu Gln Val Pro Cys Arg Thr Val Asn Lys Glu
1 5 10 15

Ala Leu Cys His Gly Leu Gly Leu Leu Gln Val Pro Ser Val Leu Ser
20 25 30

```
Leu Asp Ile Gln Ala Leu Tyr Leu Ser Gly Asn Gln Leu Gln Ser Ile
        35                  40                  45

Leu Val Ser Pro Leu Gly Phe Tyr Thr Ala Leu Arg His Leu Asp Leu
    50                  55                  60

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

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

Met Ala Leu Asn Ser Gly Gly Leu Gly Arg Leu Pro Leu Leu Val Ser
            100                 105                 110

Leu Asp Leu Ser Gly Asn Ser Leu His Gly Asn Leu Val Glu Arg Leu
        115                 120                 125

Leu Gly Glu Thr Pro Arg Leu Arg Thr Leu Ser Leu Ala Glu Asn Ser
    130                 135                 140

Leu Thr Arg Leu Ala Arg His Thr Phe Trp Gly Met Pro Ala Val Glu
145                 150                 155                 160

Gln Leu Asp Leu His Ser Asn Val Leu Met Asp Ile Glu Asp Gly Ala
                165                 170                 175

Phe Glu Ala Leu Pro His Leu Thr His Leu Asn Leu Ser Arg Asn Ser
            180                 185                 190

Leu Thr Cys Ile Ser Asp Phe Ser Leu Gln Gln Leu Gln Val Leu Asp
        195                 200                 205

Leu Ser Cys Asn Ser Ile Glu Ala Phe Gln Thr Ala Pro Glu Pro Gln
    210                 215                 220

Ala Gln Phe Gln Leu Ala Trp Leu Asp Leu Arg Glu Asn Lys Leu Leu
225                 230                 235                 240

His Phe Pro Asp Leu Ala Val Phe Pro Arg Leu Ile Tyr Leu Asn Val
                245                 250                 255

Ser Asn Asn Leu Ile Gln Leu Pro Ala Gly Leu Pro Arg Gly Ser Glu
            260                 265                 270

Asp Leu His Ala Pro Ser Glu Gly Trp Ser Ala Ser Pro Leu Ser Asn
        275                 280                 285

Pro Ser Arg Asn Ala Ser Thr His Pro Leu Ser Gln Leu Leu Asn Leu
    290                 295                 300
```

```
Asp Leu Ser Tyr Asn Glu Ile Glu Leu Val Pro Ala Ser Phe Leu Glu
305                 310                 315                 320

His Leu Thr Ser Leu Arg Phe Leu Asn Leu Ser Arg Asn Cys Leu Arg
                325                 330                 335

Ser Phe Glu Ala Arg Gln Val Asp Ser Leu Pro Cys Leu Val Leu Leu
            340                 345                 350

Asp Leu Ser His Asn Val Leu Glu Ala Leu Glu Leu Gly Thr Lys Val
        355                 360                 365

Leu Gly Ser Leu Gln Thr Leu Leu Leu Gln Asp Asn Ala Leu Gln Glu
    370                 375                 380

Leu Pro Pro Tyr Thr Phe Ala Ser Leu Ala Ser Leu Gln Arg Leu Asn
385                 390                 395                 400

Leu Gln Gly Asn Gln Val Ser Pro Cys Gly Gly Pro Ala Glu Pro Gly
                405                 410                 415

Pro Pro Gly Cys Val Asp Phe Ser Gly Ile Pro Thr Leu His Val Leu
            420                 425                 430

Asn Met Ala Gly Asn Ser Met Gly Met Leu Arg Ala Gly Ser Phe Leu
        435                 440                 445

His Thr Pro Leu Thr Glu Leu Asp Leu Ser Thr Asn Pro Gly Leu Asp
    450                 455                 460

Val Ala Thr Gly Ala Leu Val Gly Leu Glu Ala Ser Leu Glu Val Leu
465                 470                 475                 480

Glu Leu Gln Gly Asn Gly Leu Thr Val Leu Arg Val Asp Leu Pro Cys
                485                 490                 495

Phe Leu Arg Leu Lys Arg Leu Asn Leu Ala Glu Asn Gln Leu Ser His
            500                 505                 510

Leu Pro Ala Trp Thr Arg Ala Val Ser Leu Glu Val Leu Asp Leu Arg
        515                 520                 525

Asn Asn Ser Phe Ser Leu Leu Pro Gly Asn Ala Met Gly Gly Leu Glu
    530                 535                 540

Thr Ser Leu Arg Arg Leu Tyr Leu Gln Gly Asn Pro Leu Ser Cys Cys
545                 550                 555                 560

Gly Asn Gly Trp Leu Ala Ala Gln Leu His Gln Gly Arg Val Asp Val
                565                 570                 575
```

```
Asp Ala Thr Gln Asp Leu Ile Cys Arg Phe Gly Ser Gln Glu Glu Leu
            580                 585                 590

Ser Leu Ser Leu Val Arg Pro Glu Asp Cys Glu Lys Gly Gly Leu Lys
        595                 600                 605

Asn Val Asn Leu Ile Leu Leu Leu Ser Phe Thr Leu Val Ser Ala Ile
    610                 615                 620

Val Leu Thr Thr Leu Ala Thr Ile Cys Phe Leu Arg Arg Gln Lys Leu
625                 630                 635                 640

Ser Gln Gln Tyr Lys Ala
                645
```

<210> 148
<211> 611
<212> PRT
<213> Mus sp.

<400> 148

```
Ile Ser Gln Arg Arg Glu Gln Val Pro Cys Arg Thr Val Asn Lys Glu
1               5                   10                  15

Ala Leu Cys His Gly Leu Gly Leu Leu Gln Val Pro Ser Val Leu Ser
            20                  25                  30

Leu Asp Ile Gln Ala Leu Tyr Leu Ser Gly Asn Gln Leu Gln Ser Ile
        35                  40                  45

Leu Val Ser Pro Leu Gly Phe Tyr Thr Ala Leu Arg His Leu Asp Leu
    50                  55                  60

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

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

Met Ala Leu Asn Ser Gly Gly Leu Gly Arg Leu Pro Leu Leu Val Ser
            100                 105                 110

Leu Asp Leu Ser Gly Asn Ser Leu His Gly Asn Leu Val Glu Arg Leu
        115                 120                 125

Leu Gly Glu Thr Pro Arg Leu Arg Thr Leu Ser Leu Ala Glu Asn Ser
    130                 135                 140

Leu Thr Arg Leu Ala Arg His Thr Phe Trp Gly Met Pro Ala Val Glu
145                 150                 155                 160
```

```
Gln Leu Asp Leu His Ser Asn Val Leu Met Asp Ile Glu Asp Gly Ala
                165                 170                 175

Phe Glu Ala Leu Pro His Leu Thr His Leu Asn Leu Ser Arg Asn Ser
            180                 185                 190

Leu Thr Cys Ile Ser Asp Phe Ser Leu Gln Gln Leu Gln Val Leu Asp
        195                 200                 205

Leu Ser Cys Asn Ser Ile Glu Ala Phe Gln Thr Ala Pro Glu Pro Gln
    210                 215                 220

Ala Gln Phe Gln Leu Ala Trp Leu Asp Leu Arg Glu Asn Lys Leu Leu
225                 230                 235                 240

His Phe Pro Asp Leu Ala Val Phe Pro Arg Leu Ile Tyr Leu Asn Val
                245                 250                 255

Ser Asn Asn Leu Ile Gln Leu Pro Ala Gly Leu Pro Arg Gly Ser Glu
            260                 265                 270

Asp Leu His Ala Pro Ser Glu Gly Trp Ser Ala Ser Pro Leu Ser Asn
        275                 280                 285

Pro Ser Arg Asn Ala Ser Thr His Pro Leu Ser Gln Leu Leu Asn Leu
    290                 295                 300

Asp Leu Ser Tyr Asn Glu Ile Glu Leu Val Pro Ala Ser Phe Leu Glu
305                 310                 315                 320

His Leu Thr Ser Leu Arg Phe Leu Asn Leu Ser Arg Asn Cys Leu Arg
                325                 330                 335

Ser Phe Glu Ala Arg Gln Val Asp Ser Leu Pro Cys Leu Val Leu Leu
            340                 345                 350

Asp Leu Ser His Asn Val Leu Glu Ala Leu Glu Leu Gly Thr Lys Val
        355                 360                 365

Leu Gly Ser Leu Gln Thr Leu Leu Leu Gln Asp Asn Ala Leu Gln Glu
    370                 375                 380

Leu Pro Pro Tyr Thr Phe Ala Ser Leu Ala Ser Leu Gln Arg Leu Asn
385                 390                 395                 400

Leu Gln Gly Asn Gln Val Ser Pro Cys Gly Gly Pro Ala Glu Pro Gly
                405                 410                 415

Pro Pro Gly Cys Val Asp Phe Ser Gly Ile Pro Thr Leu His Val Leu
            420                 425                 430
```

```
Asn Met Ala Gly Asn Ser Met Gly Met Leu Arg Ala Gly Ser Phe Leu
        435                 440                 445

His Thr Pro Leu Thr Glu Leu Asp Leu Ser Thr Asn Pro Gly Leu Asp
    450                 455                 460

Val Ala Thr Gly Ala Leu Val Gly Leu Glu Ala Ser Leu Glu Val Leu
465                 470                 475                 480

Glu Leu Gln Gly Asn Gly Leu Thr Val Leu Arg Val Asp Leu Pro Cys
                485                 490                 495

Phe Leu Arg Leu Lys Arg Leu Asn Leu Ala Glu Asn Gln Leu Ser His
            500                 505                 510

Leu Pro Ala Trp Thr Arg Ala Val Ser Leu Glu Val Leu Asp Leu Arg
        515                 520                 525

Asn Asn Ser Phe Ser Leu Leu Pro Gly Asn Ala Met Gly Gly Leu Glu
    530                 535                 540

Thr Ser Leu Arg Arg Leu Tyr Leu Gln Gly Asn Pro Leu Ser Cys Cys
545                 550                 555                 560

Gly Asn Gly Trp Leu Ala Ala Gln Leu His Gln Gly Arg Val Asp Val
                565                 570                 575

Asp Ala Thr Gln Asp Leu Ile Cys Arg Phe Gly Ser Gln Glu Glu Leu
            580                 585                 590

Ser Leu Ser Leu Val Arg Pro Glu Asp Cys Glu Lys Gly Gly Leu Lys
        595                 600                 605

Asn Val Asn
    610


<210> 149
<211> 675
<212> PRT
<213> Mus sp.

<400> 149
Trp Arg Ser Gly Pro Gly Thr Ala Thr Ala Ala Ser Gln Gly Gly Cys
1               5                   10                  15

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

Val Pro Ser Ser Leu Pro Pro His Ser Arg Met Leu Ile Leu Asp Ala
        35                  40                  45

Asn Pro Leu Lys Asp Leu Trp Asn His Ser Leu Gln Ala Tyr Pro Arg
    50                  55                  60
```

```
Leu Glu Asn Leu Ser Leu His Ser Cys His Leu Asp Arg Ile Ser His
65                  70                  75                  80

Tyr Ala Phe Arg Glu Gln Gly His Leu Arg Asn Leu Val Leu Ala Asp
                85                  90                  95

Asn Arg Leu Ser Glu Asn Tyr Lys Glu Ser Ala Ala Ala Leu His Thr
            100                 105                 110

Leu Leu Gly Leu Arg Arg Leu Asp Leu Ser Gly Asn Ser Leu Thr Glu
        115                 120                 125

Asp Met Ala Ala Leu Met Leu Gln Asn Leu Ser Ser Leu Glu Val Val
    130                 135                 140

Ser Leu Ala Arg Asn Thr Leu Met Arg Leu Asp Asp Ser Ile Phe Glu
145                 150                 155                 160

Gly Leu Glu His Leu Val Glu Leu Asp Leu Gln Arg Asn Tyr Ile Phe
                165                 170                 175

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

Asn Leu Ala Tyr Asn Asn Leu Pro Cys Ile Val Asp Phe Ser Leu Thr
        195                 200                 205

Gln Leu Arg Phe Leu Asn Val Ser Tyr Asn Ile Leu Glu Trp Phe Leu
    210                 215                 220

Ala Ala Arg Glu Glu Val Ala Phe Glu Leu Glu Ile Leu Asp Leu Ser
225                 230                 235                 240

His Asn Gln Leu Leu Phe Phe Pro Leu Leu Pro Gln Cys Gly Lys Leu
                245                 250                 255

His Thr Leu Leu Leu Gln Asp Asn Asn Met Gly Phe Tyr Arg Glu Leu
            260                 265                 270

Tyr Asn Thr Ser Ser Pro Gln Glu Met Val Ala Gln Phe Leu Leu Val
        275                 280                 285

Asp Gly Asn Val Thr Asn Ile Thr Thr Val Asn Leu Trp Glu Glu Phe
    290                 295                 300

Ser Ser Ser Asp Leu Ser Ala Leu Arg Phe Leu Asp Met Ser Gln Asn
305                 310                 315                 320

Gln Phe Arg His Leu Pro Asp Gly Phe Leu Lys Lys Thr Pro Ser Leu
                325                 330                 335
```

```
Ser His Leu Asn Leu Asn Gln Asn Cys Leu Lys Met Leu His Ile Arg
            340                 345                 350

Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His Asn
        355                 360                 365

Gln Leu Ala Glu Leu His Leu Ala Pro Gly Leu Thr Gly Ser Leu Arg
    370                 375                 380

Asn Leu Arg Val Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val Pro
385                 390                 395                 400

Thr Gly Leu Phe Asp Asn Ala Ser Ser Ile Thr Thr Ile Asp Met Ser
                405                 410                 415

His Asn Gln Ile Ser Leu Cys Pro Gln Met Val Pro Val Asp Trp Glu
            420                 425                 430

Gly Pro Pro Ser Cys Val Asp Phe Arg Asn Met Gly Ser Leu Arg Ser
        435                 440                 445

Leu Ser Leu Asp Gly Cys Gly Leu Lys Ala Leu Gln Asp Cys Pro Phe
    450                 455                 460

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

Leu Asn Gly Ser Ile Ser Pro Leu Trp Ala Val Ala Pro Thr Leu Gln
                485                 490                 495

Val Leu Ser Leu Arg Asp Val Gly Leu Gly Ser Gly Ala Ala Glu Met
            500                 505                 510

Asp Phe Ser Ala Phe Gly Asn Leu Arg Ala Leu Asp Leu Ser Gly Asn
        515                 520                 525

Ser Leu Thr Ser Phe Pro Lys Phe Lys Gly Ser Leu Ala Leu Arg Thr
    530                 535                 540

Leu Asp Leu Arg Arg Asn Ser Leu Thr Ala Leu Pro Gln Arg Val Val
545                 550                 555                 560

Ser Glu Gln Pro Leu Arg Gly Leu Gln Thr Ile Tyr Leu Ser Gln Asn
                565                 570                 575

Pro Tyr Asp Cys Cys Gly Val Glu Gly Trp Gly Ala Leu Gln Gln His
            580                 585                 590

Phe Lys Thr Val Ala Asp Leu Ser Met Val Thr Cys Asn Leu Ser Ser
        595                 600                 605
```

Lys Ile Val Arg Val Val Glu Leu Pro Glu Gly Leu Pro Gln Gly Cys
610 615 620

Lys Trp Glu Gln Val Asp Thr Gly Leu Phe Tyr Leu Val Leu Ile Leu
625 630 635 640

Pro Ser Cys Leu Thr Leu Leu Val Ala Cys Thr Val Val Phe Leu Thr
645 650 655

Phe Lys Lys Pro Leu Leu Gln Val Ile Lys Ser Arg Cys His Trp Ser
660 665 670

Ser Ile Tyr
675

<210> 150
<211> 633
<212> PRT
<213> Mus sp.

<400> 150
Trp Arg Ser Gly Pro Gly Thr Ala Thr Ala Ala Ser Gln Gly Gly Cys
1 5 10 15

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

Val Pro Ser Ser Leu Pro Pro His Ser Arg Met Leu Ile Leu Asp Ala
35 40 45

Asn Pro Leu Lys Asp Leu Trp Asn His Ser Leu Gln Ala Tyr Pro Arg
50 55 60

Leu Glu Asn Leu Ser Leu His Ser Cys His Leu Asp Arg Ile Ser His
65 70 75 80

Tyr Ala Phe Arg Glu Gln Gly His Leu Arg Asn Leu Val Leu Ala Asp
85 90 95

Asn Arg Leu Ser Glu Asn Tyr Lys Glu Ser Ala Ala Ala Leu His Thr
100 105 110

Leu Leu Gly Leu Arg Arg Leu Asp Leu Ser Gly Asn Ser Leu Thr Glu
115 120 125

Asp Met Ala Ala Leu Met Leu Gln Asn Leu Ser Ser Leu Glu Val Val
130 135 140

Ser Leu Ala Arg Asn Thr Leu Met Arg Leu Asp Asp Ser Ile Phe Glu
145 150 155 160

```
Gly Leu Glu His Leu Val Glu Leu Asp Leu Gln Arg Asn Tyr Ile Phe
               165                 170                 175

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

Asn Leu Ala Tyr Asn Asn Leu Pro Cys Ile Val Asp Phe Ser Leu Thr
        195                 200                 205

Gln Leu Arg Phe Leu Asn Val Ser Tyr Asn Ile Leu Glu Trp Phe Leu
    210                 215                 220

Ala Ala Arg Glu Glu Val Ala Phe Glu Leu Glu Ile Leu Asp Leu Ser
225                 230                 235                 240

His Asn Gln Leu Leu Phe Phe Pro Leu Leu Pro Gln Cys Gly Lys Leu
               245                 250                 255

His Thr Leu Leu Leu Gln Asp Asn Asn Met Gly Phe Tyr Arg Glu Leu
            260                 265                 270

Tyr Asn Thr Ser Ser Pro Gln Glu Met Val Ala Gln Phe Leu Leu Val
        275                 280                 285

Asp Gly Asn Val Thr Asn Ile Thr Thr Val Asn Leu Trp Glu Glu Phe
    290                 295                 300

Ser Ser Ser Asp Leu Ser Ala Leu Arg Phe Leu Asp Met Ser Gln Asn
305                 310                 315                 320

Gln Phe Arg His Leu Pro Asp Gly Phe Leu Lys Lys Thr Pro Ser Leu
               325                 330                 335

Ser His Leu Asn Leu Asn Gln Asn Cys Leu Lys Met Leu His Ile Arg
            340                 345                 350

Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His Asn
        355                 360                 365

Gln Leu Ala Glu Leu His Leu Ala Pro Gly Leu Thr Gly Ser Leu Arg
    370                 375                 380

Asn Leu Arg Val Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val Pro
385                 390                 395                 400

Thr Gly Leu Phe Asp Asn Ala Ser Ser Ile Thr Thr Ile Asp Met Ser
               405                 410                 415

His Asn Gln Ile Ser Leu Cys Pro Gln Met Val Pro Val Asp Trp Glu
            420                 425                 430
```

Gly Pro Pro Ser Cys Val Asp Phe Arg Asn Met Gly Ser Leu Arg Ser
435 440 445

Leu Ser Leu Asp Gly Cys Gly Leu Lys Ala Leu Gln Asp Cys Pro Phe
450 455 460

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

Leu Asn Gly Ser Ile Ser Pro Leu Trp Ala Val Ala Pro Thr Leu Gln
485 490 495

Val Leu Ser Leu Arg Asp Val Gly Leu Gly Ser Gly Ala Ala Glu Met
500 505 510

Asp Phe Ser Ala Phe Gly Asn Leu Arg Ala Leu Asp Leu Ser Gly Asn
515 520 525

Ser Leu Thr Ser Phe Pro Lys Phe Lys Gly Ser Leu Ala Leu Arg Thr
530 535 540

Leu Asp Leu Arg Arg Asn Ser Leu Thr Ala Leu Pro Gln Arg Val Val
545 550 555 560

Ser Glu Gln Pro Leu Arg Gly Leu Gln Thr Ile Tyr Leu Ser Gln Asn
565 570 575

Pro Tyr Asp Cys Cys Gly Val Glu Gly Trp Gly Ala Leu Gln Gln His
580 585 590

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

Lys Ile Val Arg Val Val Glu Leu Pro Glu Gly Leu Pro Gln Gly Cys
610 615 620

Lys Trp Glu Gln Val Asp Thr Gly Leu
625 630

<210> 151
<211> 674
<212> PRT
<213> Macaca fascicularis

<400> 151
Trp Arg Asp Arg Ser Val Thr Ala Thr Ala Ala Ser Gln Arg Gly Cys
1 5 10 15

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

Val Pro Ser Ser Leu Pro Pro His Ala Arg Thr Leu Ile Leu Asp Ala
35 40 45

```
Asn Pro Leu Lys Ala Leu Trp Asn His Ser Leu Gln Pro Tyr Pro Leu
    50                  55                  60

Leu Glu Ser Leu Ser Leu His Ser Cys His Leu Glu Arg Ile Gly Arg
65                  70                  75                  80

Gly Ala Phe Gln Glu Gln Gly His Leu Arg Ser Leu Val Leu Gly Asp
                85                  90                  95

Asn Cys Leu Ser Glu Asn Tyr Lys Glu Thr Ala Ala Ala Leu His Thr
            100                 105                 110

Leu Pro Gly Leu Gln Thr Leu Asp Leu Ser Gly Asn Ser Leu Thr Glu
        115                 120                 125

Asp Met Ala Ala Leu Met Leu Gln Asn Leu Ser Ser Leu Gln Ser Val
    130                 135                 140

Ser Leu Ala Arg Asn Thr Ile Met Arg Leu Asp Asp Ser Val Phe Glu
145                 150                 155                 160

Gly Leu Glu Arg Leu Arg Glu Leu Asp Leu Gln Arg Asn Tyr Ile Phe
                165                 170                 175

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

Asn Leu Ala Tyr Asn Asn Leu Pro Cys Ile Val Asp Phe Gly Leu Thr
        195                 200                 205

Gln Leu Arg Ser Leu Asn Val Ser Tyr Asn Val Leu Glu Trp Phe Leu
    210                 215                 220

Ala Ala Gly Gly Glu Ala Ala Phe Glu Leu Glu Thr Leu Asp Leu Ser
225                 230                 235                 240

His Asn Gln Leu Leu Phe Phe Pro Leu Leu Pro Gln Tyr Ser Lys Leu
                245                 250                 255

His Thr Leu Leu Leu Arg Asp Asn Asn Met Gly Phe Tyr Arg Asp Leu
            260                 265                 270

Tyr Asn Thr Ser Ser Pro Arg Glu Met Val Ala Gln Phe Leu Leu Val
        275                 280                 285

Asp Gly Asn Val Thr Asn Ile Thr Thr Val Asn Leu Trp Glu Glu Phe
    290                 295                 300

Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln Asn
305                 310                 315                 320
```

```
Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser Leu
                325                 330                 335

Ser His Leu Asn Leu Asn Gln Asn Cys Leu Met Thr Leu His Ile Arg
            340                 345                 350

Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His Asn
        355                 360                 365

Gln Leu Ser Glu Leu His Leu Thr Pro Gly Leu Ala Ser Cys Leu Gly
    370                 375                 380

Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val Pro
385                 390                 395                 400

Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met Ser
                405                 410                 415

His Asn Gln Ile Ser Leu Cys Pro Leu Pro Ala Ala Ser Asp Arg Val
            420                 425                 430

Gly Pro Pro Ser Cys Val Asp Phe Arg Asn Met Ala Ser Leu Arg Ser
        435                 440                 445

Leu Ser Leu Glu Gly Cys Gly Leu Gly Ala Leu Pro Asp Cys Pro Phe
    450                 455                 460

Gln Gly Thr Ser Leu Thr Ser Leu Asp Leu Ser Ser Asn Trp Gly Val
465                 470                 475                 480

Leu Asn Gly Ser Leu Ala Pro Leu Arg Asp Val Ala Pro Met Leu Gln
                485                 490                 495

Val Leu Ser Leu Arg Asn Met Gly Leu His Ser Asn Phe Met Ala Leu
            500                 505                 510

Asp Phe Ser Gly Phe Gly Asn Leu Arg Asp Leu Asp Leu Ser Gly Asn
        515                 520                 525

Cys Leu Thr Thr Phe Pro Arg Phe Gly Gly Ser Leu Ala Leu Glu Thr
    530                 535                 540

Leu Asp Leu Arg Arg Asn Ser Leu Thr Ala Leu Pro Gln Lys Ala Val
545                 550                 555                 560

Ser Glu Gln Leu Ser Arg Gly Leu Arg Thr Ile Tyr Leu Ser Gln Asn
                565                 570                 575

Pro Tyr Asp Cys Cys Gly Val Asp Gly Trp Gly Ala Leu Gln Gln Gly
            580                 585                 590
```

```
Gln Thr Val Ala Asp Trp Ala Thr Val Thr Cys Asn Leu Ser Ser Lys
        595                 600                 605

Ile Ile Arg Leu Ala Glu Leu Pro Gly Gly Val Pro Arg Asp Cys Lys
    610                 615                 620

Trp Glu Arg Leu Asp Leu Gly Leu Leu Tyr Leu Val Leu Ile Leu Pro
625                 630                 635                 640

Ser Cys Leu Thr Leu Leu Val Ala Cys Thr Leu Ile Val Leu Thr Phe
                645                 650                 655

Lys Lys Pro Leu Leu Gln Val Ile Lys Ser Arg Cys His Trp Ser Ser
            660                 665                 670

Val Tyr
```

<210> 152
<211> 632
<212> PRT
<213> Macaca fascicularis

<400> 152

```
Trp Arg Asp Arg Ser Val Thr Ala Thr Ala Ala Ser Gln Arg Gly Cys
1               5                   10                  15

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

Val Pro Ser Ser Leu Pro Pro His Ala Arg Thr Leu Ile Leu Asp Ala
        35                  40                  45

Asn Pro Leu Lys Ala Leu Trp Asn His Ser Leu Gln Pro Tyr Pro Leu
    50                  55                  60

Leu Glu Ser Leu Ser Leu His Ser Cys His Leu Glu Arg Ile Gly Arg
65                  70                  75                  80

Gly Ala Phe Gln Glu Gln Gly His Leu Arg Ser Leu Val Leu Gly Asp
                85                  90                  95

Asn Cys Leu Ser Glu Asn Tyr Lys Glu Thr Ala Ala Ala Leu His Thr
            100                 105                 110

Leu Pro Gly Leu Gln Thr Leu Asp Leu Ser Gly Asn Ser Leu Thr Glu
        115                 120                 125

Asp Met Ala Ala Leu Met Leu Gln Asn Leu Ser Ser Leu Gln Ser Val
    130                 135                 140
```

```
Ser Leu Ala Arg Asn Thr Ile Met Arg Leu Asp Asp Ser Val Phe Glu
145                 150                 155                 160

Gly Leu Glu Arg Leu Arg Glu Leu Asp Leu Gln Arg Asn Tyr Ile Phe
                165                 170                 175

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

Asn Leu Ala Tyr Asn Asn Leu Pro Cys Ile Val Asp Phe Gly Leu Thr
        195                 200                 205

Gln Leu Arg Ser Leu Asn Val Ser Tyr Asn Val Leu Glu Trp Phe Leu
    210                 215                 220

Ala Ala Gly Gly Glu Ala Ala Phe Glu Leu Glu Thr Leu Asp Leu Ser
225                 230                 235                 240

His Asn Gln Leu Leu Phe Phe Pro Leu Leu Pro Gln Tyr Ser Lys Leu
                245                 250                 255

His Thr Leu Leu Leu Arg Asp Asn Asn Met Gly Phe Tyr Arg Asp Leu
            260                 265                 270

Tyr Asn Thr Ser Ser Pro Arg Glu Met Val Ala Gln Phe Leu Leu Val
        275                 280                 285

Asp Gly Asn Val Thr Asn Ile Thr Thr Val Asn Leu Trp Glu Glu Phe
    290                 295                 300

Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln Asn
305                 310                 315                 320

Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser Leu
                325                 330                 335

Ser His Leu Asn Leu Asn Gln Asn Cys Leu Met Thr Leu His Ile Arg
            340                 345                 350

Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His Asn
        355                 360                 365

Gln Leu Ser Glu Leu His Leu Thr Pro Gly Leu Ala Ser Cys Leu Gly
    370                 375                 380

Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val Pro
385                 390                 395                 400

Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met Ser
                405                 410                 415
```

His Asn Gln Ile Ser Leu Cys Pro Leu Pro Ala Ala Ser Asp Arg Val
420 425 430

Gly Pro Pro Ser Cys Val Asp Phe Arg Asn Met Ala Ser Leu Arg Ser
435 440 445

Leu Ser Leu Glu Gly Cys Gly Leu Gly Ala Leu Pro Asp Cys Pro Phe
450 455 460

Gln Gly Thr Ser Leu Thr Ser Leu Asp Leu Ser Ser Asn Trp Gly Val
465 470 475 480

Leu Asn Gly Ser Leu Ala Pro Leu Arg Asp Val Ala Pro Met Leu Gln
485 490 495

Val Leu Ser Leu Arg Asn Met Gly Leu His Ser Asn Phe Met Ala Leu
500 505 510

Asp Phe Ser Gly Phe Gly Asn Leu Arg Asp Leu Asp Leu Ser Gly Asn
515 520 525

Cys Leu Thr Thr Phe Pro Arg Phe Gly Gly Ser Leu Ala Leu Glu Thr
530 535 540

Leu Asp Leu Arg Arg Asn Ser Leu Thr Ala Leu Pro Gln Lys Ala Val
545 550 555 560

Ser Glu Gln Leu Ser Arg Gly Leu Arg Thr Ile Tyr Leu Ser Gln Asn
565 570 575

Pro Tyr Asp Cys Cys Gly Val Asp Gly Trp Gly Ala Leu Gln Gln Gly
580 585 590

Gln Thr Val Ala Asp Trp Ala Thr Val Thr Cys Asn Leu Ser Ser Lys
595 600 605

Ile Ile Arg Leu Ala Glu Leu Pro Gly Gly Val Pro Arg Asp Cys Lys
610 615 620

Trp Glu Arg Leu Asp Leu Gly Leu
625 630

<210> 153
<211> 179
<212> PRT
<213> Homo sapiens

<400> 153
Asn Glu Cys Glu Leu Leu Ser Gly Val Cys Gly Glu Ala Phe Cys Glu
1 5 10 15

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

```
Tyr Ser Pro Met Thr Gly Gln Cys Arg Ser Arg Thr Ser Thr Asp Leu
        35                  40                  45

Asp Val Asp Val Asp Gln Pro Lys Glu Glu Lys Lys Glu Cys Tyr Tyr
    50                  55                  60

Asn Leu Asn Asp Ala Ser Leu Cys Asp Asn Val Leu Ala Pro Asn Val
65                  70                  75                  80

Thr Lys Gln Glu Cys Cys Cys Thr Ser Gly Val Gly Trp Gly Asp Asn
                85                  90                  95

Cys Glu Ile Phe Pro Cys Pro Val Leu Gly Thr Ala Glu Phe Thr Glu
            100                 105                 110

Met Cys Pro Lys Gly Lys Gly Phe Val Pro Ala Gly Glu Ser Ser Ser
        115                 120                 125

Glu Ala Gly Gly Glu Asn Tyr Lys Asp Ala Asp Glu Cys Leu Leu Phe
    130                 135                 140

Gly Gln Glu Ile Cys Lys Asn Gly Phe Cys Leu Asn Thr Arg Pro Gly
145                 150                 155                 160

Tyr Glu Cys Tyr Cys Lys Gln Gly Thr Tyr Tyr Asp Pro Val Lys Leu
                165                 170                 175

Gln Cys Phe
```

<210> 154
<211> 434
<212> PRT
<213> Homo sapiens

<400> 154

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

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

Tyr Ser Pro Met Thr Gly Gln Cys Arg Ser Arg Thr Ser Thr Asp Leu
        35                  40                  45

Asp Val Asp Val Asp Gln Pro Lys Glu Glu Lys Lys Glu Cys Tyr Tyr
    50                  55                  60

Asn Leu Asn Asp Ala Ser Leu Cys Asp Asn Val Leu Ala Pro Asn Val
65                  70                  75                  80
```

```
Thr Lys Gln Glu Cys Cys Cys Thr Ser Gly Val Gly Trp Gly Asp Asn
                85                  90                  95

Cys Glu Ile Phe Pro Cys Pro Val Leu Gly Thr Ala Glu Phe Thr Glu
            100                 105                 110

Met Cys Pro Lys Gly Lys Gly Phe Val Pro Ala Gly Glu Ser Ser Ser
        115                 120                 125

Glu Ala Gly Gly Glu Asn Tyr Lys Asp Ala Asp Glu Cys Leu Leu Phe
    130                 135                 140

Gly Gln Glu Ile Cys Lys Asn Gly Phe Cys Leu Asn Thr Arg Pro Gly
145                 150                 155                 160

Tyr Glu Cys Tyr Cys Lys Gln Gly Thr Tyr Tyr Asp Pro Val Lys Leu
                165                 170                 175

Gln Cys Phe Asp Met Asp Glu Cys Gln Asp Pro Ser Ser Cys Ile Asp
            180                 185                 190

Gly Gln Cys Val Asn Thr Glu Gly Ser Tyr Asn Cys Phe Cys Thr His
        195                 200                 205

Pro Met Val Leu Asp Ala Ser Glu Lys Arg Cys Ile Arg Pro Ala Glu
    210                 215                 220

Ser Asn Glu Gln Ile Glu Glu Thr Asp Val Tyr Gln Asp Leu Cys Trp
225                 230                 235                 240

Glu His Leu Ser Asp Glu Tyr Val Cys Ser Arg Pro Leu Val Gly Lys
                245                 250                 255

Gln Thr Thr Tyr Thr Glu Cys Cys Cys Leu Tyr Gly Glu Ala Trp Gly
            260                 265                 270

Met Gln Cys Ala Leu Cys Pro Leu Lys Asp Ser Asp Asp Tyr Ala Gln
        275                 280                 285

Leu Cys Asn Ile Pro Val Thr Gly Arg Arg Gln Pro Tyr Gly Arg Asp
    290                 295                 300

Ala Leu Val Asp Phe Ser Glu Gln Tyr Thr Pro Glu Ala Asp Pro Tyr
305                 310                 315                 320

Phe Ile Gln Asp Arg Phe Leu Asn Ser Phe Glu Glu Leu Gln Ala Glu
                325                 330                 335

Glu Cys Gly Ile Leu Asn Gly Cys Glu Asn Gly Arg Cys Val Arg Val
            340                 345                 350
```

Gln Glu Gly Tyr Thr Cys Asp Cys Phe Asp Gly Tyr His Leu Asp Thr
355 360 365

Ala Lys Met Thr Cys Val Asp Val Asn Glu Cys Asp Glu Leu Asn Asn
370 375 380

Arg Met Ser Leu Cys Lys Asn Ala Lys Cys Ile Asn Thr Asp Gly Ser
385 390 395 400

Tyr Lys Cys Leu Cys Leu Pro Gly Tyr Val Pro Ser Asp Lys Pro Asn
405 410 415

Tyr Cys Thr Pro Leu Asn Thr Ala Leu Asn Leu Glu Lys Asp Ser Asp
420 425 430

Leu Glu

<210> 155
<211> 913
<212> PRT
<213> Homo sapiens

<400> 155
Pro Ser Leu Asp Gln Glu Lys Thr Lys Leu Glu Pro Gly Gln Pro Gln
1 5 10 15

Leu Ser Pro Gly Ile Ser Thr Ile His Leu His Pro Gln Phe Pro Val
20 25 30

Val Ile Glu Lys Thr Ser Pro Pro Val Pro Val Glu Val Ala Pro Glu
35 40 45

Ala Ser Thr Ser Ser Ala Ser Gln Val Ile Ala Pro Thr Gln Val Thr
50 55 60

Glu Ile Asn Glu Cys Thr Val Asn Pro Asp Ile Cys Gly Ala Gly His
65 70 75 80

Cys Ile Asn Leu Pro Val Arg Tyr Thr Cys Ile Cys Tyr Glu Gly Tyr
85 90 95

Arg Phe Ser Glu Gln Gln Arg Lys Cys Val Asp Ile Asp Glu Cys Thr
100 105 110

Gln Val Gln His Leu Cys Ser Gln Gly Arg Cys Glu Asn Thr Glu Gly
115 120 125

Ser Phe Leu Cys Ile Cys Pro Ala Gly Phe Met Ala Ser Glu Glu Gly
130 135 140

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

```
Glu Gly His Cys Val Asn Thr Val Gly Ala Phe Arg Cys Glu Tyr Cys
                165                 170                 175

Asp Ser Gly Tyr Arg Met Thr Gln Arg Gly Arg Cys Glu Asp Ile Asp
            180                 185                 190

Glu Cys Leu Asn Pro Ser Thr Cys Pro Asp Glu Gln Cys Val Asn Ser
        195                 200                 205

Pro Gly Ser Tyr Gln Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp
    210                 215                 220

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

Ala Asn Gly Asp Cys Ser Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys
                245                 250                 255

His Lys Gly Tyr Thr Arg Thr Pro Asp His Lys His Cys Arg Asp Ile
            260                 265                 270

Asp Glu Cys Gln Gln Gly Asn Leu Cys Val Asn Gly Gln Cys Lys Asn
        275                 280                 285

Thr Glu Gly Ser Phe Arg Cys Thr Cys Gly Gln Gly Tyr Gln Leu Ser
    290                 295                 300

Ala Ala Lys Asp Gln Cys Glu Asp Ile Asp Glu Cys Gln His Arg His
305                 310                 315                 320

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

Val Cys Asp Gln Gly Tyr Arg Ala Ser Gly Leu Gly Asp His Cys Glu
            340                 345                 350

Asp Ile Asn Glu Cys Leu Glu Asp Lys Ser Val Cys Gln Arg Gly Asp
        355                 360                 365

Cys Ile Asn Thr Ala Gly Ser Tyr Asp Cys Thr Cys Pro Asp Gly Phe
    370                 375                 380

Gln Leu Asp Asp Asn Lys Thr Cys Gln Asp Ile Asn Glu Cys Glu His
385                 390                 395                 400

Pro Gly Leu Cys Gly Pro Gln Gly Glu Cys Leu Asn Thr Glu Gly Ser
                405                 410                 415

Phe His Cys Val Cys Gln Gln Gly Phe Ser Ile Ser Ala Asp Gly Arg
            420                 425                 430
```

```
Thr Cys Glu Asp Ile Asp Glu Cys Val Asn Asn Thr Val Cys Asp Ser
        435                 440                 445

His Gly Phe Cys Asp Asn Thr Ala Gly Ser Phe Arg Cys Leu Cys Tyr
    450                 455                 460

Gln Gly Phe Gln Ala Pro Gln Asp Gly Gln Gly Cys Val Asp Val Asn
465                 470                 475                 480

Glu Cys Glu Leu Leu Ser Gly Val Cys Gly Glu Ala Phe Cys Glu Asn
                485                 490                 495

Val Glu Gly Ser Phe Leu Cys Val Cys Ala Asp Glu Asn Gln Glu Tyr
            500                 505                 510

Ser Pro Met Thr Gly Gln Cys Arg Ser Arg Thr Ser Thr Asp Leu Asp
        515                 520                 525

Val Asp Val Asp Gln Pro Lys Glu Glu Lys Lys Glu Cys Tyr Tyr Asn
    530                 535                 540

Leu Asn Asp Ala Ser Leu Cys Asp Asn Val Leu Ala Pro Asn Val Thr
545                 550                 555                 560

Lys Gln Glu Cys Cys Cys Thr Ser Gly Val Gly Trp Gly Asp Asn Cys
                565                 570                 575

Glu Ile Phe Pro Cys Pro Val Leu Gly Thr Ala Glu Phe Thr Glu Met
            580                 585                 590

Cys Pro Lys Gly Lys Gly Phe Val Pro Ala Gly Glu Ser Ser Ser Glu
        595                 600                 605

Ala Gly Gly Glu Asn Tyr Lys Asp Ala Asp Glu Cys Leu Leu Phe Gly
    610                 615                 620

Gln Glu Ile Cys Lys Asn Gly Phe Cys Leu Asn Thr Arg Pro Gly Tyr
625                 630                 635                 640

Glu Cys Tyr Cys Lys Gln Gly Thr Tyr Tyr Asp Pro Val Lys Leu Gln
                645                 650                 655

Cys Phe Asp Met Asp Glu Cys Gln Asp Pro Ser Ser Cys Ile Asp Gly
            660                 665                 670

Gln Cys Val Asn Thr Glu Gly Ser Tyr Asn Cys Phe Cys Thr His Pro
        675                 680                 685

Met Val Leu Asp Ala Ser Glu Lys Arg Cys Ile Arg Pro Ala Glu Ser
    690                 695                 700
```

```
Asn Glu Gln Ile Glu Glu Thr Asp Val Tyr Gln Asp Leu Cys Trp Glu
705                 710                 715                 720

His Leu Ser Asp Glu Tyr Val Cys Ser Arg Pro Leu Val Gly Lys Gln
                725                 730                 735

Thr Thr Tyr Thr Glu Cys Cys Cys Leu Tyr Gly Glu Ala Trp Gly Met
            740                 745                 750

Gln Cys Ala Leu Cys Pro Leu Lys Asp Ser Asp Asp Tyr Ala Gln Leu
        755                 760                 765

Cys Asn Ile Pro Val Thr Gly Arg Arg Gln Pro Tyr Gly Arg Asp Ala
    770                 775                 780

Leu Val Asp Phe Ser Glu Gln Tyr Thr Pro Glu Ala Asp Pro Tyr Phe
785                 790                 795                 800

Ile Gln Asp Arg Phe Leu Asn Ser Phe Glu Glu Leu Gln Ala Glu Glu
                805                 810                 815

Cys Gly Ile Leu Asn Gly Cys Glu Asn Gly Arg Cys Val Arg Val Gln
            820                 825                 830

Glu Gly Tyr Thr Cys Asp Cys Phe Asp Gly Tyr His Leu Asp Thr Ala
        835                 840                 845

Lys Met Thr Cys Val Asp Val Asn Glu Cys Asp Glu Leu Asn Asn Arg
    850                 855                 860

Met Ser Leu Cys Lys Asn Ala Lys Cys Ile Asn Thr Asp Gly Ser Tyr
865                 870                 875                 880

Lys Cys Leu Cys Leu Pro Gly Tyr Val Pro Ser Asp Lys Pro Asn Tyr
                885                 890                 895

Cys Thr Pro Leu Asn Thr Ala Leu Asn Leu Glu Lys Asp Ser Asp Leu
            900                 905                 910

Glu
```

<210> 156
<211> 1375
<212> PRT
<213> Homo sapiens

<400> 156

```
Asn His Thr Gly Arg Ile Lys Val Val Phe Thr Pro Ser Ile Cys Lys
1               5                   10                  15
```

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

Thr Thr Thr Leu Ile Ser Glu Asn Gly His Ala Ala Asp Thr Leu Thr
        35                  40                  45

Ala Thr Asn Phe Arg Val Val Ile Cys His Leu Pro Cys Met Asn Gly
    50                  55                  60

Gly Gln Cys Ser Ser Arg Asp Lys Cys Gln Cys Pro Pro Asn Phe Thr
65                  70                  75                  80

Gly Lys Leu Cys Gln Ile Pro Val His Gly Ala Ser Val Pro Lys Leu
                85                  90                  95

Tyr Gln His Ser Gln Gln Pro Gly Lys Ala Leu Gly Thr His Val Ile
            100                 105                 110

His Ser Thr His Thr Leu Pro Leu Thr Val Thr Ser Gln Gln Gly Val
        115                 120                 125

Lys Val Lys Phe Pro Pro Asn Ile Val Asn Ile His Val Lys His Pro
    130                 135                 140

Pro Glu Ala Ser Val Gln Ile His Gln Val Ser Arg Ile Asp Gly Pro
145                 150                 155                 160

Thr Gly Gln Lys Thr Lys Glu Ala Gln Pro Gly Gln Ser Gln Val Ser
                165                 170                 175

Tyr Gln Gly Leu Pro Val Gln Lys Thr Gln Thr Ile His Ser Thr Tyr
            180                 185                 190

Ser His Gln Gln Val Ile Pro His Val Tyr Pro Val Ala Ala Lys Thr
        195                 200                 205

Gln Leu Gly Arg Cys Phe Gln Glu Thr Ile Gly Ser Gln Cys Gly Lys
    210                 215                 220

Ala Leu Pro Gly Leu Ser Lys Gln Glu Asp Cys Cys Gly Thr Val Gly
225                 230                 235                 240

Thr Ser Trp Gly Phe Asn Lys Cys Gln Lys Cys Pro Lys Lys Pro Ser
                245                 250                 255

Tyr His Gly Tyr Asn Gln Met Met Glu Cys Leu Pro Gly Tyr Lys Arg
            260                 265                 270

Val Asn Asn Thr Phe Cys Gln Asp Ile Asn Glu Cys Gln Leu Gln Gly
        275                 280                 285
```

```
Val Cys Pro Asn Gly Glu Cys Leu Asn Thr Met Gly Ser Tyr Arg Cys
    290                 295                 300

Thr Cys Lys Ile Gly Phe Gly Pro Asp Pro Thr Phe Ser Ser Cys Val
305                 310                 315                 320

Pro Asp Pro Pro Val Ile Ser Glu Glu Lys Gly Pro Cys Tyr Arg Leu
                325                 330                 335

Val Ser Ser Gly Arg Gln Cys Met His Pro Leu Ser Val His Leu Thr
            340                 345                 350

Lys Gln Leu Cys Cys Cys Ser Val Gly Lys Ala Trp Gly Pro His Cys
        355                 360                 365

Glu Lys Cys Pro Leu Pro Gly Thr Ala Ala Phe Lys Glu Ile Cys Pro
    370                 375                 380

Gly Gly Met Gly Tyr Thr Val Ser Gly Val His Arg Arg Arg Pro Ile
385                 390                 395                 400

His His His Val Gly Lys Gly Pro Val Phe Val Lys Pro Lys Asn Thr
                405                 410                 415

Gln Pro Val Ala Lys Ser Thr His Pro Pro Pro Leu Pro Ala Lys Glu
            420                 425                 430

Glu Pro Val Glu Ala Leu Thr Phe Ser Arg Glu His Gly Pro Gly Val
        435                 440                 445

Ala Glu Pro Glu Val Ala Thr Ala Pro Pro Glu Lys Glu Ile Pro Ser
    450                 455                 460

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

Pro Gly Ile Ser Thr Ile His Leu His Pro Gln Phe Pro Val Val Ile
                485                 490                 495

Glu Lys Thr Ser Pro Pro Val Pro Val Glu Val Ala Pro Glu Ala Ser
            500                 505                 510

Thr Ser Ser Ala Ser Gln Val Ile Ala Pro Thr Gln Val Thr Glu Ile
        515                 520                 525

Asn Glu Cys Thr Val Asn Pro Asp Ile Cys Gly Ala Gly His Cys Ile
    530                 535                 540

Asn Leu Pro Val Arg Tyr Thr Cys Ile Cys Tyr Glu Gly Tyr Arg Phe
545                 550                 555                 560
```

```
Ser Glu Gln Gln Arg Lys Cys Val Asp Ile Asp Glu Cys Thr Gln Val
                565                 570                 575

Gln His Leu Cys Ser Gln Gly Arg Cys Glu Asn Thr Glu Gly Ser Phe
            580                 585                 590

Leu Cys Ile Cys Pro Ala Gly Phe Met Ala Ser Glu Glu Gly Thr Asn
        595                 600                 605

Cys Ile Asp Val Asp Glu Cys Leu Arg Pro Asp Val Cys Gly Glu Gly
    610                 615                 620

His Cys Val Asn Thr Val Gly Ala Phe Arg Cys Glu Tyr Cys Asp Ser
625                 630                 635                 640

Gly Tyr Arg Met Thr Gln Arg Gly Arg Cys Glu Asp Ile Asp Glu Cys
                645                 650                 655

Leu Asn Pro Ser Thr Cys Pro Asp Glu Gln Cys Val Asn Ser Pro Gly
            660                 665                 670

Ser Tyr Gln Cys Val Pro Cys Thr Glu Gly Phe Arg Gly Trp Asn Gly
        675                 680                 685

Gln Cys Leu Asp Val Asp Glu Cys Leu Glu Pro Asn Val Cys Ala Asn
    690                 695                 700

Gly Asp Cys Ser Asn Leu Glu Gly Ser Tyr Met Cys Ser Cys His Lys
705                 710                 715                 720

Gly Tyr Thr Arg Thr Pro Asp His Lys His Cys Arg Asp Ile Asp Glu
                725                 730                 735

Cys Gln Gln Gly Asn Leu Cys Val Asn Gly Gln Cys Lys Asn Thr Glu
            740                 745                 750

Gly Ser Phe Arg Cys Thr Cys Gly Gln Gly Tyr Gln Leu Ser Ala Ala
        755                 760                 765

Lys Asp Gln Cys Glu Asp Ile Asp Glu Cys Gln His Arg His Leu Cys
    770                 775                 780

Ala His Gly Gln Cys Arg Asn Thr Glu Gly Ser Phe Gln Cys Val Cys
785                 790                 795                 800

Asp Gln Gly Tyr Arg Ala Ser Gly Leu Gly Asp His Cys Glu Asp Ile
                805                 810                 815

Asn Glu Cys Leu Glu Asp Lys Ser Val Cys Gln Arg Gly Asp Cys Ile
            820                 825                 830
```

```
Asn Thr Ala Gly Ser Tyr Asp Cys Thr Cys Pro Asp Gly Phe Gln Leu
        835                 840                 845

Asp Asp Asn Lys Thr Cys Gln Asp Ile Asn Glu Cys Glu His Pro Gly
    850                 855                 860

Leu Cys Gly Pro Gln Gly Glu Cys Leu Asn Thr Glu Gly Ser Phe His
865                 870                 875                 880

Cys Val Cys Gln Gln Gly Phe Ser Ile Ser Ala Asp Gly Arg Thr Cys
                885                 890                 895

Glu Asp Ile Asp Glu Cys Val Asn Asn Thr Val Cys Asp Ser His Gly
            900                 905                 910

Phe Cys Asp Asn Thr Ala Gly Ser Phe Arg Cys Leu Cys Tyr Gln Gly
        915                 920                 925

Phe Gln Ala Pro Gln Asp Gly Gln Gly Cys Val Asp Val Asn Glu Cys
    930                 935                 940

Glu Leu Leu Ser Gly Val Cys Gly Glu Ala Phe Cys Glu Asn Val Glu
945                 950                 955                 960

Gly Ser Phe Leu Cys Val Cys Ala Asp Glu Asn Gln Glu Tyr Ser Pro
                965                 970                 975

Met Thr Gly Gln Cys Arg Ser Arg Thr Ser Thr Asp Leu Asp Val Asp
            980                 985                 990

Val Asp Gln Pro Lys Glu Glu Lys  Lys Glu Cys Tyr Tyr  Asn Leu Asn
        995                 1000                1005

Asp Ala  Ser Leu Cys Asp Asn  Val Leu Ala Pro Asn  Val Thr Lys
    1010                1015                1020

Gln Glu  Cys Cys Cys Thr Ser  Gly Val Gly Trp Gly  Asp Asn Cys
    1025                1030                1035

Glu Ile  Phe Pro Cys Pro Val  Leu Gly Thr Ala Glu  Phe Thr Glu
    1040                1045                1050

Met Cys  Pro Lys Gly Lys Gly  Phe Val Pro Ala Gly  Glu Ser Ser
    1055                1060                1065

Ser Glu  Ala Gly Gly Glu Asn  Tyr Lys Asp Ala Asp  Glu Cys Leu
    1070                1075                1080

Leu Phe  Gly Gln Glu Ile Cys  Lys Asn Gly Phe Cys  Leu Asn Thr
    1085                1090                1095
```

```
Arg Pro  Gly Tyr Glu Cys Tyr  Cys Lys Gln Gly Thr  Tyr Tyr Asp
    1100                1105                1110

Pro Val  Lys Leu Gln Cys Phe  Asp Met Asp Glu Cys  Gln Asp Pro
    1115                1120                1125

Ser Ser  Cys Ile Asp Gly Gln  Cys Val Asn Thr Glu  Gly Ser Tyr
    1130                1135                1140

Asn Cys  Phe Cys Thr His Pro  Met Val Leu Asp Ala  Ser Glu Lys
    1145                1150                1155

Arg Cys  Ile Arg Pro Ala Glu  Ser Asn Glu Gln Ile  Glu Glu Thr
    1160                1165                1170

Asp Val  Tyr Gln Asp Leu Cys  Trp Glu His Leu Ser  Asp Glu Tyr
    1175                1180                1185

Val Cys  Ser Arg Pro Leu Val  Gly Lys Gln Thr Thr  Tyr Thr Glu
    1190                1195                1200

Cys Cys  Cys Leu Tyr Gly Glu  Ala Trp Gly Met Gln  Cys Ala Leu
    1205                1210                1215

Cys Pro  Leu Lys Asp Ser Asp  Asp Tyr Ala Gln Leu  Cys Asn Ile
    1220                1225                1230

Pro Val  Thr Gly Arg Arg Gln  Pro Tyr Gly Arg Asp  Ala Leu Val
    1235                1240                1245

Asp Phe  Ser Glu Gln Tyr Thr  Pro Glu Ala Asp Pro  Tyr Phe Ile
    1250                1255                1260

Gln Asp  Arg Phe Leu Asn Ser  Phe Glu Glu Leu Gln  Ala Glu Glu
    1265                1270                1275

Cys Gly  Ile Leu Asn Gly Cys  Glu Asn Gly Arg Cys  Val Arg Val
    1280                1285                1290

Gln Glu  Gly Tyr Thr Cys Asp  Cys Phe Asp Gly Tyr  His Leu Asp
    1295                1300                1305

Thr Ala  Lys Met Thr Cys Val  Asp Val Asn Glu Cys  Asp Glu Leu
    1310                1315                1320

Asn Asn  Arg Met Ser Leu Cys  Lys Asn Ala Lys Cys  Ile Asn Thr
    1325                1330                1335

Asp Gly  Ser Tyr Lys Cys Leu  Cys Leu Pro Gly Tyr  Val Pro Ser
    1340                1345                1350
```

Asp Lys Pro Asn Tyr Cys Thr Pro Leu Asn Thr Ala Leu Asn Leu
1355 1360 1365

Glu Lys Asp Ser Asp Leu Glu
1370 1375

<210> 157
<211> 1260
<212> PRT
<213> Homo sapiens

<400> 157
Gly Pro Ala Gly Glu Arg Gly Ala Gly Gly Gly Gly Ala Leu Ala Arg
1 5 10 15

Glu Arg Phe Lys Val Val Phe Ala Pro Val Ile Cys Lys Arg Thr Cys
20 25 30

Leu Lys Gly Gln Cys Arg Asp Ser Cys Gln Gln Gly Ser Asn Met Thr
35 40 45

Leu Ile Gly Glu Asn Gly His Ser Thr Asp Thr Leu Thr Gly Ser Gly
50 55 60

Phe Arg Val Val Val Cys Pro Leu Pro Cys Met Asn Gly Gly Gln Cys
65 70 75 80

Ser Ser Arg Asn Gln Cys Leu Cys Pro Pro Asp Phe Thr Gly Arg Phe
85 90 95

Cys Gln Val Pro Ala Gly Gly Ala Gly Gly Gly Thr Gly Gly Ser Gly
100 105 110

Pro Gly Leu Ser Arg Thr Gly Ala Leu Ser Thr Gly Ala Leu Pro Pro
115 120 125

Leu Ala Pro Glu Gly Asp Ser Val Ala Ser Lys His Ala Ile Tyr Ala
130 135 140

Val Gln Val Ile Ala Asp Pro Pro Gly Pro Gly Glu Gly Pro Pro Ala
145 150 155 160

Gln His Ala Ala Phe Leu Val Pro Leu Gly Pro Gly Gln Ile Ser Ala
165 170 175

Glu Val Gln Ala Pro Pro Pro Val Val Asn Val Arg Val His His Pro
180 185 190

Pro Glu Ala Ser Val Gln Val His Arg Ile Glu Ser Ser Asn Ala Glu
195 200 205

Ser Ala Ala Pro Ser Gln His Leu Leu Pro His Pro Lys Pro Ser His
210 215 220

```
Pro Arg Pro Pro Thr Gln Lys Pro Leu Gly Arg Cys Phe Gln Asp Thr
225                 230                 235                 240

Leu Pro Lys Gln Pro Cys Gly Ser Asn Pro Leu Pro Gly Leu Thr Lys
                245                 250                 255

Gln Glu Asp Cys Cys Gly Ser Ile Gly Thr Ala Trp Gly Gln Ser Lys
            260                 265                 270

Cys His Lys Cys Pro Gln Leu Gln Tyr Thr Gly Val Gln Lys Pro Gly
        275                 280                 285

Pro Val Arg Gly Glu Val Gly Ala Asp Cys Pro Gln Gly Tyr Lys Arg
    290                 295                 300

Leu Asn Ser Thr His Cys Gln Asp Ile Asn Glu Cys Ala Met Pro Gly
305                 310                 315                 320

Val Cys Arg His Gly Asp Cys Leu Asn Asn Pro Gly Ser Tyr Arg Cys
                325                 330                 335

Val Cys Pro Pro Gly His Ser Leu Gly Pro Ser Arg Thr Gln Cys Ile
            340                 345                 350

Ala Asp Lys Pro Glu Glu Lys Ser Leu Cys Phe Arg Leu Val Ser Pro
        355                 360                 365

Glu His Gln Cys Gln His Pro Leu Thr Thr Arg Leu Thr Arg Gln Leu
    370                 375                 380

Cys Cys Cys Ser Val Gly Lys Ala Trp Gly Ala Arg Cys Gln Arg Cys
385                 390                 395                 400

Pro Thr Asp Gly Thr Ala Ala Phe Lys Glu Ile Cys Pro Ala Gly Lys
                405                 410                 415

Gly Tyr His Ile Leu Thr Ser His Gln Thr Leu Thr Ile Gln Gly Glu
            420                 425                 430

Ser Asp Phe Ser Leu Phe Leu His Pro Asp Gly Pro Pro Lys Pro Gln
        435                 440                 445

Gln Leu Pro Glu Ser Pro Ser Gln Ala Pro Pro Pro Glu Asp Thr Glu
    450                 455                 460

Glu Glu Arg Gly Val Thr Thr Asp Ser Pro Val Ser Glu Glu Arg Ser
465                 470                 475                 480

Val Gln Gln Ser His Pro Thr Ala Thr Thr Thr Pro Ala Arg Pro Tyr
                485                 490                 495
```

```
Pro Glu Leu Ile Ser Arg Pro Ser Pro Pro Thr Met Arg Trp Phe Leu
            500                 505                 510

Pro Asp Leu Pro Pro Ser Arg Ser Ala Val Glu Ile Ala Pro Thr Gln
        515                 520                 525

Val Thr Glu Thr Asp Glu Cys Arg Leu Asn Gln Asn Ile Cys Gly His
    530                 535                 540

Gly Glu Cys Val Pro Gly Pro Pro Asp Tyr Ser Cys His Cys Asn Pro
545                 550                 555                 560

Gly Tyr Arg Ser His Pro Gln His Arg Tyr Cys Val Asp Val Asn Glu
                565                 570                 575

Cys Glu Ala Glu Pro Cys Gly Pro Gly Arg Gly Ile Cys Met Asn Thr
            580                 585                 590

Gly Gly Ser Tyr Asn Cys His Cys Asn Arg Gly Tyr Arg Leu His Val
        595                 600                 605

Gly Ala Gly Gly Arg Ser Cys Val Asp Leu Asn Glu Cys Ala Lys Pro
    610                 615                 620

His Leu Cys Gly Asp Gly Gly Phe Cys Ile Asn Phe Pro Gly His Tyr
625                 630                 635                 640

Lys Cys Asn Cys Tyr Pro Gly Tyr Arg Leu Lys Ala Ser Arg Pro Pro
                645                 650                 655

Val Cys Glu Asp Ile Asp Glu Cys Arg Asp Pro Ser Ser Cys Pro Asp
            660                 665                 670

Gly Lys Cys Glu Asn Lys Pro Gly Ser Phe Lys Cys Ile Ala Cys Gln
        675                 680                 685

Pro Gly Tyr Arg Ser Gln Gly Gly Gly Ala Cys Arg Asp Val Asn Glu
    690                 695                 700

Cys Ala Glu Gly Ser Pro Cys Ser Pro Gly Trp Cys Glu Asn Leu Pro
705                 710                 715                 720

Gly Ser Phe Arg Cys Thr Cys Ala Gln Gly Tyr Ala Pro Ala Pro Asp
                725                 730                 735

Gly Arg Ser Cys Leu Asp Val Asp Glu Cys Glu Ala Gly Asp Val Cys
            740                 745                 750

Asp Asn Gly Ile Cys Ser Asn Thr Pro Gly Ser Phe Gln Cys Gln Cys
        755                 760                 765
```

```
Leu Ser Gly Tyr His Leu Ser Arg Asp Arg Ser His Cys Glu Asp Ile
    770                 775                 780

Asp Glu Cys Asp Phe Pro Ala Ala Cys Ile Gly Gly Asp Cys Ile Asn
785                 790                 795                 800

Thr Asn Gly Ser Tyr Arg Cys Leu Cys Pro Gln Gly His Arg Leu Val
                805                 810                 815

Gly Gly Arg Lys Cys Gln Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser
            820                 825                 830

Leu Cys Leu Pro His Gly Ala Cys Lys Asn Leu Gln Gly Ser Tyr Val
        835                 840                 845

Cys Val Cys Asp Glu Gly Phe Thr Pro Thr Gln Asp Gln His Gly Cys
    850                 855                 860

Glu Glu Val Glu Gln Pro His His Lys Lys Glu Cys Tyr Leu Asn Phe
865                 870                 875                 880

Asp Asp Thr Val Phe Cys Asp Ser Val Leu Ala Thr Asn Val Thr Gln
                885                 890                 895

Gln Glu Cys Cys Cys Ser Leu Gly Ala Gly Trp Gly Asp His Cys Glu
            900                 905                 910

Ile Tyr Pro Cys Pro Val Tyr Ser Ser Ala Glu Phe His Ser Leu Cys
        915                 920                 925

Pro Asp Gly Lys Gly Tyr Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly
    930                 935                 940

Ile Pro Ala His Arg Asp Ile Asp Glu Cys Met Leu Phe Gly Ser Glu
945                 950                 955                 960

Ile Cys Lys Glu Gly Lys Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys
                965                 970                 975

Tyr Cys Lys Gln Gly Phe Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val
            980                 985                 990

Asp Val Asp Glu Cys Leu Asp Glu  Ser Asn Cys Arg Asn  Gly Val Cys
        995                 1000                1005

Glu Asn  Thr Arg Gly Gly Tyr  Arg Cys Ala Cys Thr  Pro Pro Ala
    1010                1015                1020

Glu Tyr  Ser Pro Ala Gln Arg  Gln Cys Leu Ser Pro  Glu Glu Met
    1025                1030                1035
```

```
Asp Val  Asp Glu Cys Gln Asp  Pro Ala Ala Cys Arg  Pro Gly Arg
    1040                1045                1050

Cys Val  Asn Leu Pro Gly Ser  Tyr Arg Cys Glu Cys  Arg Pro Pro
    1055                1060                1065

Trp Val  Pro Gly Pro Ser Gly  Arg Asp Cys Gln Leu  Pro Glu Ser
    1070                1075                1080

Pro Ala  Glu Arg Ala Pro Glu  Arg Arg Asp Val Cys  Trp Ser Gln
    1085                1090                1095

Arg Gly  Glu Asp Gly Met Cys  Ala Gly Pro Leu Ala  Gly Pro Ala
    1100                1105                1110

Leu Thr  Phe Asp Asp Cys Cys  Cys Arg Gln Gly Arg  Gly Trp Gly
    1115                1120                1125

Ala Gln  Cys Arg Pro Cys Pro  Pro Arg Gly Ala Gly  Ser His Cys
    1130                1135                1140

Pro Thr  Ser Gln Ser Glu Ser  Asn Ser Phe Trp Asp  Thr Ser Pro
    1145                1150                1155

Leu Leu  Leu Gly Lys Pro Pro  Arg Asp Glu Asp Ser  Ser Glu Glu
    1160                1165                1170

Asp Ser  Asp Glu Cys Arg Cys  Val Ser Gly Arg Cys  Val Pro Arg
    1175                1180                1185

Pro Gly  Gly Ala Val Cys Glu  Cys Pro Gly Gly Phe  Gln Leu Asp
    1190                1195                1200

Ala Ser  Arg Ala Arg Cys Val  Asp Ile Asp Glu Cys  Arg Glu Leu
    1205                1210                1215

Asn Gln  Arg Gly Leu Leu Cys  Lys Ser Glu Arg Cys  Val Asn Thr
    1220                1225                1230

Ser Gly  Ser Phe Arg Cys Val  Cys Lys Ala Gly Phe  Ala Arg Ser
    1235                1240                1245

Arg Pro  His Gly Ala Cys Val  Pro Gln Arg Arg Arg
    1250                1255                1260
```

<210> 158
<211> 645
<212> PRT
<213> Homo sapiens

<400> 158

```
Ala Gln His Gln Asp Lys Val Pro Cys Lys Met Val Asp Lys Lys Val
1               5                  10                  15

Ser Cys Gln Val Leu Gly Leu Leu Gln Val Pro Ser Val Leu Pro Pro
            20                  25                  30

Asp Thr Glu Thr Leu Asp Leu Ser Gly Asn Gln Leu Arg Ser Ile Leu
        35                  40                  45

Ala Ser Pro Leu Gly Phe Tyr Thr Ala Leu Arg His Leu Asp Leu Ser
    50                  55                  60

Thr Asn Glu Ile Ser Phe Leu Gln Pro Gly Ala Phe Gln Ala Leu Thr
65                  70                  75                  80

His Leu Glu His Leu Ser Leu Ala His Asn Arg Leu Ala Met Ala Thr
                85                  90                  95

Ala Leu Ser Ala Gly Gly Leu Gly Pro Leu Pro Arg Val Thr Ser Leu
            100                 105                 110

Asp Leu Ser Gly Asn Ser Leu Tyr Ser Gly Leu Leu Glu Arg Leu Leu
        115                 120                 125

Gly Glu Ala Pro Ser Leu His Thr Leu Ser Leu Ala Glu Asn Ser Leu
    130                 135                 140

Thr Arg Leu Thr Arg His Thr Phe Arg Asp Met Pro Ala Leu Glu Gln
145                 150                 155                 160

Leu Asp Leu His Ser Asn Val Leu Met Asp Ile Glu Asp Gly Ala Phe
                165                 170                 175

Glu Gly Leu Pro Arg Leu Thr His Leu Asn Leu Ser Arg Asn Ser Leu
            180                 185                 190

Thr Cys Ile Ser Asp Phe Ser Leu Gln Gln Leu Arg Val Leu Asp Leu
        195                 200                 205

Ser Cys Asn Ser Ile Glu Ala Phe Gln Thr Ala Ser Gln Pro Gln Ala
    210                 215                 220

Glu Phe Gln Leu Thr Trp Leu Asp Leu Arg Glu Asn Lys Leu Leu His
225                 230                 235                 240

Phe Pro Asp Leu Ala Ala Leu Pro Arg Leu Ile Tyr Leu Asn Leu Ser
                245                 250                 255

Asn Asn Leu Ile Arg Leu Pro Thr Gly Pro Pro Gln Asp Ser Lys Gly
            260                 265                 270
```

```
Ile His Ala Pro Ser Glu Gly Trp Ser Ala Leu Pro Leu Ser Ala Pro
        275                 280                 285

Ser Gly Asn Ala Ser Gly Arg Pro Leu Ser Gln Leu Leu Asn Leu Asp
    290                 295                 300

Leu Ser Tyr Asn Glu Ile Glu Leu Ile Pro Asp Ser Phe Leu Glu His
305                 310                 315                 320

Leu Thr Ser Leu Cys Phe Leu Asn Leu Ser Arg Asn Cys Leu Arg Thr
                325                 330                 335

Phe Glu Ala Arg Arg Leu Gly Ser Leu Pro Cys Leu Met Leu Leu Asp
            340                 345                 350

Leu Ser His Asn Ala Leu Glu Thr Leu Glu Leu Gly Ala Arg Ala Leu
        355                 360                 365

Gly Ser Leu Arg Thr Leu Leu Leu Gln Gly Asn Ala Leu Arg Asp Leu
    370                 375                 380

Pro Pro Tyr Thr Phe Ala Asn Leu Ala Ser Leu Gln Arg Leu Asn Leu
385                 390                 395                 400

Gln Gly Asn Arg Val Ser Pro Cys Gly Gly Pro Asp Glu Pro Gly Pro
                405                 410                 415

Ser Gly Cys Val Ala Phe Ser Gly Ile Thr Ser Leu Arg Ser Leu Ser
            420                 425                 430

Leu Val Asp Asn Glu Ile Glu Leu Leu Arg Ala Gly Ala Phe Leu His
        435                 440                 445

Thr Pro Leu Thr Glu Leu Asp Leu Ser Ser Asn Pro Gly Leu Glu Val
    450                 455                 460

Ala Thr Gly Ala Leu Gly Gly Leu Glu Ala Ser Leu Glu Val Leu Ala
465                 470                 475                 480

Leu Gln Gly Asn Gly Leu Met Val Leu Gln Val Asp Leu Pro Cys Phe
                485                 490                 495

Ile Cys Leu Lys Arg Leu Asn Leu Ala Glu Asn Arg Leu Ser His Leu
            500                 505                 510

Pro Ala Trp Thr Gln Ala Val Ser Leu Glu Val Leu Asp Leu Arg Asn
        515                 520                 525

Asn Ser Phe Ser Leu Leu Pro Gly Ser Ala Met Gly Gly Leu Glu Thr
    530                 535                 540
```

Ser Leu Arg Arg Leu Tyr Leu Gln Gly Asn Pro Leu Ser Cys Cys Gly
545 550 555 560

Asn Gly Trp Leu Ala Ala Gln Leu His Gln Gly Arg Val Asp Val Asp
565 570 575

Ala Thr Gln Asp Leu Ile Cys Arg Phe Ser Ser Gln Glu Glu Val Ser
580 585 590

Leu Ser His Val Arg Pro Glu Asp Cys Glu Lys Gly Gly Leu Lys Asn
595 600 605

Ile Asn Leu Ile Ile Ile Leu Thr Phe Ile Leu Val Ser Ala Ile Leu
610 615 620

Leu Thr Thr Leu Ala Ala Cys Cys Cys Val Arg Arg Gln Lys Phe Asn
625 630 635 640

Gln Gln Tyr Lys Ala
645

<210> 159
<211> 610
<212> PRT
<213> Homo sapiens

<400> 159
Ala Gln His Gln Asp Lys Val Pro Cys Lys Met Val Asp Lys Lys Val
1 5 10 15

Ser Cys Gln Val Leu Gly Leu Leu Gln Val Pro Ser Val Leu Pro Pro
20 25 30

Asp Thr Glu Thr Leu Asp Leu Ser Gly Asn Gln Leu Arg Ser Ile Leu
35 40 45

Ala Ser Pro Leu Gly Phe Tyr Thr Ala Leu Arg His Leu Asp Leu Ser
50 55 60

Thr Asn Glu Ile Ser Phe Leu Gln Pro Gly Ala Phe Gln Ala Leu Thr
65 70 75 80

His Leu Glu His Leu Ser Leu Ala His Asn Arg Leu Ala Met Ala Thr
85 90 95

Ala Leu Ser Ala Gly Gly Leu Gly Pro Leu Pro Arg Val Thr Ser Leu
100 105 110

Asp Leu Ser Gly Asn Ser Leu Tyr Ser Gly Leu Leu Glu Arg Leu Leu
115 120 125

Gly Glu Ala Pro Ser Leu His Thr Leu Ser Leu Ala Glu Asn Ser Leu
130 135 140

```
Thr Arg Leu Thr Arg His Thr Phe Arg Asp Met Pro Ala Leu Glu Gln
145                 150                 155                 160

Leu Asp Leu His Ser Asn Val Leu Met Asp Ile Glu Asp Gly Ala Phe
                165                 170                 175

Glu Gly Leu Pro Arg Leu Thr His Leu Asn Leu Ser Arg Asn Ser Leu
            180                 185                 190

Thr Cys Ile Ser Asp Phe Ser Leu Gln Gln Leu Arg Val Leu Asp Leu
        195                 200                 205

Ser Cys Asn Ser Ile Glu Ala Phe Gln Thr Ala Ser Gln Pro Gln Ala
    210                 215                 220

Glu Phe Gln Leu Thr Trp Leu Asp Leu Arg Glu Asn Lys Leu Leu His
225                 230                 235                 240

Phe Pro Asp Leu Ala Ala Leu Pro Arg Leu Ile Tyr Leu Asn Leu Ser
                245                 250                 255

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

Ile His Ala Pro Ser Glu Gly Trp Ser Ala Leu Pro Leu Ser Ala Pro
        275                 280                 285

Ser Gly Asn Ala Ser Gly Arg Pro Leu Ser Gln Leu Leu Asn Leu Asp
    290                 295                 300

Leu Ser Tyr Asn Glu Ile Glu Leu Ile Pro Asp Ser Phe Leu Glu His
305                 310                 315                 320

Leu Thr Ser Leu Cys Phe Leu Asn Leu Ser Arg Asn Cys Leu Arg Thr
                325                 330                 335

Phe Glu Ala Arg Arg Leu Gly Ser Leu Pro Cys Leu Met Leu Leu Asp
            340                 345                 350

Leu Ser His Asn Ala Leu Glu Thr Leu Glu Leu Gly Ala Arg Ala Leu
        355                 360                 365

Gly Ser Leu Arg Thr Leu Leu Leu Gln Gly Asn Ala Leu Arg Asp Leu
    370                 375                 380

Pro Pro Tyr Thr Phe Ala Asn Leu Ala Ser Leu Gln Arg Leu Asn Leu
385                 390                 395                 400

Gln Gly Asn Arg Val Ser Pro Cys Gly Gly Pro Asp Glu Pro Gly Pro
                405                 410                 415
```

Ser Gly Cys Val Ala Phe Ser Gly Ile Thr Ser Leu Arg Ser Leu Ser
420 425 430

Leu Val Asp Asn Glu Ile Glu Leu Leu Arg Ala Gly Ala Phe Leu His
435 440 445

Thr Pro Leu Thr Glu Leu Asp Leu Ser Ser Asn Pro Gly Leu Glu Val
450 455 460

Ala Thr Gly Ala Leu Gly Gly Leu Glu Ala Ser Leu Glu Val Leu Ala
465 470 475 480

Leu Gln Gly Asn Gly Leu Met Val Leu Gln Val Asp Leu Pro Cys Phe
485 490 495

Ile Cys Leu Lys Arg Leu Asn Leu Ala Glu Asn Arg Leu Ser His Leu
500 505 510

Pro Ala Trp Thr Gln Ala Val Ser Leu Glu Val Leu Asp Leu Arg Asn
515 520 525

Asn Ser Phe Ser Leu Leu Pro Gly Ser Ala Met Gly Gly Leu Glu Thr
530 535 540

Ser Leu Arg Arg Leu Tyr Leu Gln Gly Asn Pro Leu Ser Cys Cys Gly
545 550 555 560

Asn Gly Trp Leu Ala Ala Gln Leu His Gln Gly Arg Val Asp Val Asp
565 570 575

Ala Thr Gln Asp Leu Ile Cys Arg Phe Ser Ser Gln Glu Glu Val Ser
580 585 590

Leu Ser His Val Arg Pro Glu Asp Cys Glu Lys Gly Gly Leu Lys Asn
595 600 605

Ile Asn
610

<210> 160
<211> 674
<212> PRT
<213> Homo sapiens

<400> 160
Trp Arg Asn Arg Ser Gly Thr Ala Thr Ala Ala Ser Gln Gly Val Cys
1 5 10 15

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

```
Val Pro Ser Ser Leu Pro Pro His Ala Arg Met Leu Thr Leu Asp Ala
        35                  40                  45

Asn Pro Leu Lys Thr Leu Trp Asn His Ser Leu Gln Pro Tyr Pro Leu
    50                  55                  60

Leu Glu Ser Leu Ser Leu His Ser Cys His Leu Glu Arg Ile Ser Arg
65                  70                  75                  80

Gly Ala Phe Gln Glu Gln Gly His Leu Arg Ser Leu Val Leu Gly Asp
                85                  90                  95

Asn Cys Leu Ser Glu Asn Tyr Glu Glu Thr Ala Ala Ala Leu His Ala
            100                 105                 110

Leu Pro Gly Leu Arg Arg Leu Asp Leu Ser Gly Asn Ala Leu Thr Glu
        115                 120                 125

Asp Met Ala Ala Leu Met Leu Gln Asn Leu Ser Ser Leu Arg Ser Val
    130                 135                 140

Ser Leu Ala Gly Asn Thr Ile Met Arg Leu Asp Asp Ser Val Phe Glu
145                 150                 155                 160

Gly Leu Glu Arg Leu Arg Glu Leu Asp Leu Gln Arg Asn Tyr Ile Phe
                165                 170                 175

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

Asn Leu Ala Phe Asn Asn Leu Pro Cys Ile Val Asp Phe Gly Leu Thr
        195                 200                 205

Arg Leu Arg Val Leu Asn Val Ser Tyr Asn Val Leu Glu Trp Phe Leu
    210                 215                 220

Ala Thr Gly Gly Glu Ala Ala Phe Glu Leu Glu Thr Leu Asp Leu Ser
225                 230                 235                 240

His Asn Gln Leu Leu Phe Phe Pro Leu Leu Pro Gln Tyr Ser Lys Leu
                245                 250                 255

Arg Thr Leu Leu Leu Arg Asp Asn Asn Met Gly Phe Tyr Arg Asp Leu
            260                 265                 270

Tyr Asn Thr Ser Ser Pro Arg Glu Met Val Ala Gln Phe Leu Leu Val
        275                 280                 285

Asp Gly Asn Val Thr Asn Ile Thr Thr Val Ser Leu Trp Glu Glu Phe
    290                 295                 300
```

```
Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln Asn
305                 310                 315                 320

Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser Leu
                325                 330                 335

Ser His Leu Asn Leu His Gln Asn Cys Leu Met Thr Leu His Ile Arg
            340                 345                 350

Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His Asn
        355                 360                 365

Gln Leu Ser Glu Leu His Leu Ala Pro Gly Leu Ala Ser Cys Leu Gly
    370                 375                 380

Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val Pro
385                 390                 395                 400

Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met Ser
                405                 410                 415

His Asn Gln Ile Ser Leu Cys Pro Leu Pro Ala Ala Ser Asp Arg Val
            420                 425                 430

Gly Pro Pro Ser Cys Val Asp Phe Arg Asn Met Ala Ser Leu Arg Ser
        435                 440                 445

Leu Ser Leu Glu Gly Cys Gly Leu Gly Ala Leu Pro Asp Cys Pro Phe
    450                 455                 460

Gln Gly Thr Ser Leu Thr Tyr Leu Asp Leu Ser Ser Asn Trp Gly Val
465                 470                 475                 480

Leu Asn Gly Ser Leu Ala Pro Leu Gln Asp Val Ala Pro Met Leu Gln
                485                 490                 495

Val Leu Ser Leu Arg Asn Met Gly Leu His Ser Ser Phe Met Ala Leu
            500                 505                 510

Asp Phe Ser Gly Phe Gly Asn Leu Arg Asp Leu Asp Leu Ser Gly Asn
        515                 520                 525

Cys Leu Thr Thr Phe Pro Arg Phe Gly Gly Ser Leu Ala Leu Glu Thr
    530                 535                 540

Leu Asp Leu Arg Arg Asn Ser Leu Thr Ala Leu Pro Gln Lys Ala Val
545                 550                 555                 560

Ser Glu Gln Leu Ser Arg Gly Leu Arg Thr Ile Tyr Leu Ser Gln Asn
                565                 570                 575
```

Pro Tyr Asp Cys Cys Gly Val Asp Gly Trp Gly Ala Leu Gln His Gly
580 585 590

Gln Thr Val Ala Asp Trp Ala Met Val Thr Cys Asn Leu Ser Ser Lys
595 600 605

Ile Ile Arg Val Thr Glu Leu Pro Gly Gly Val Pro Arg Asp Cys Lys
610 615 620

Trp Glu Arg Leu Asp Leu Gly Leu Leu Tyr Leu Val Leu Ile Leu Pro
625 630 635 640

Ser Cys Leu Thr Leu Leu Val Ala Cys Thr Val Ile Val Leu Thr Phe
645 650 655

Lys Lys Pro Leu Leu Gln Val Ile Lys Ser Arg Cys His Trp Ser Ser
660 665 670

Val Tyr

<210> 161
<211> 632
<212> PRT
<213> Homo sapiens

<400> 161
Trp Arg Asn Arg Ser Gly Thr Ala Thr Ala Ala Ser Gln Gly Val Cys
1 5 10 15

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

Val Pro Ser Ser Leu Pro Pro His Ala Arg Met Leu Thr Leu Asp Ala
35 40 45

Asn Pro Leu Lys Thr Leu Trp Asn His Ser Leu Gln Pro Tyr Pro Leu
50 55 60

Leu Glu Ser Leu Ser Leu His Ser Cys His Leu Glu Arg Ile Ser Arg
65 70 75 80

Gly Ala Phe Gln Glu Gln Gly His Leu Arg Ser Leu Val Leu Gly Asp
85 90 95

Asn Cys Leu Ser Glu Asn Tyr Glu Glu Thr Ala Ala Ala Leu His Ala
100 105 110

Leu Pro Gly Leu Arg Arg Leu Asp Leu Ser Gly Asn Ala Leu Thr Glu
115 120 125

Asp Met Ala Ala Leu Met Leu Gln Asn Leu Ser Ser Leu Arg Ser Val
130 135 140

```
Ser Leu Ala Gly Asn Thr Ile Met Arg Leu Asp Asp Ser Val Phe Glu
145                 150                 155                 160

Gly Leu Glu Arg Leu Arg Glu Leu Asp Leu Gln Arg Asn Tyr Ile Phe
                165                 170                 175

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

Asn Leu Ala Phe Asn Asn Leu Pro Cys Ile Val Asp Phe Gly Leu Thr
        195                 200                 205

Arg Leu Arg Val Leu Asn Val Ser Tyr Asn Val Leu Glu Trp Phe Leu
    210                 215                 220

Ala Thr Gly Gly Glu Ala Ala Phe Glu Leu Glu Thr Leu Asp Leu Ser
225                 230                 235                 240

His Asn Gln Leu Leu Phe Phe Pro Leu Leu Pro Gln Tyr Ser Lys Leu
                245                 250                 255

Arg Thr Leu Leu Leu Arg Asp Asn Asn Met Gly Phe Tyr Arg Asp Leu
            260                 265                 270

Tyr Asn Thr Ser Ser Pro Arg Glu Met Val Ala Gln Phe Leu Leu Val
        275                 280                 285

Asp Gly Asn Val Thr Asn Ile Thr Thr Val Ser Leu Trp Glu Glu Phe
    290                 295                 300

Ser Ser Ser Asp Leu Ala Asp Leu Arg Phe Leu Asp Met Ser Gln Asn
305                 310                 315                 320

Gln Phe Gln Tyr Leu Pro Asp Gly Phe Leu Arg Lys Met Pro Ser Leu
                325                 330                 335

Ser His Leu Asn Leu His Gln Asn Cys Leu Met Thr Leu His Ile Arg
            340                 345                 350

Glu His Glu Pro Pro Gly Ala Leu Thr Glu Leu Asp Leu Ser His Asn
        355                 360                 365

Gln Leu Ser Glu Leu His Leu Ala Pro Gly Leu Ala Ser Cys Leu Gly
    370                 375                 380

Ser Leu Arg Leu Phe Asn Leu Ser Ser Asn Gln Leu Leu Gly Val Pro
385                 390                 395                 400

Pro Gly Leu Phe Ala Asn Ala Arg Asn Ile Thr Thr Leu Asp Met Ser
                405                 410                 415
```

```
His Asn Gln Ile Ser Leu Cys Pro Leu Pro Ala Ala Ser Asp Arg Val
            420                 425                 430

Gly Pro Pro Ser Cys Val Asp Phe Arg Asn Met Ala Ser Leu Arg Ser
        435                 440                 445

Leu Ser Leu Glu Gly Cys Gly Leu Gly Ala Leu Pro Asp Cys Pro Phe
    450                 455                 460

Gln Gly Thr Ser Leu Thr Tyr Leu Asp Leu Ser Ser Asn Trp Gly Val
465                 470                 475                 480

Leu Asn Gly Ser Leu Ala Pro Leu Gln Asp Val Ala Pro Met Leu Gln
                485                 490                 495

Val Leu Ser Leu Arg Asn Met Gly Leu His Ser Ser Phe Met Ala Leu
            500                 505                 510

Asp Phe Ser Gly Phe Gly Asn Leu Arg Asp Leu Asp Leu Ser Gly Asn
        515                 520                 525

Cys Leu Thr Thr Phe Pro Arg Phe Gly Gly Ser Leu Ala Leu Glu Thr
    530                 535                 540

Leu Asp Leu Arg Arg Asn Ser Leu Thr Ala Leu Pro Gln Lys Ala Val
545                 550                 555                 560

Ser Glu Gln Leu Ser Arg Gly Leu Arg Thr Ile Tyr Leu Ser Gln Asn
                565                 570                 575

Pro Tyr Asp Cys Cys Gly Val Asp Gly Trp Gly Ala Leu Gln His Gly
            580                 585                 590

Gln Thr Val Ala Asp Trp Ala Met Val Thr Cys Asn Leu Ser Ser Lys
        595                 600                 605

Ile Ile Arg Val Thr Glu Leu Pro Gly Gly Val Pro Arg Asp Cys Lys
    610                 615                 620

Trp Glu Arg Leu Asp Leu Gly Leu
625                 630


<210> 162
<211> 243
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 162
```

Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

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

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
115 120 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
130 135 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145 150 155 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
165 170 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
195 200 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
210 215 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225 230 235 240

Ser Arg Arg

<210> 163
<211> 352
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 163

```
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                  10                  15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65                  70                  75                  80

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
    130                 135                 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

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

Ser Arg Ala Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255
```

```
Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
                325                 330                 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
            340                 345                 350


<210> 164
<211> 352
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 164
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                   10                  15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

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

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125
```

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
130 135 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145 150 155 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
165 170 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
195 200 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
210 215 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225 230 235 240

Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
245 250 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
260 265 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
275 280 285

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
290 295 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305 310 315 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
325 330 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
340 345 350

<210> 165
<211> 352
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 165
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

```
Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

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

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
    130                 135                 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

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

Ser Arg Ala Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
                245                 250                 255

Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp
            260                 265                 270

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
        275                 280                 285
```

```
Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
    290                 295                 300

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
305                 310                 315                 320

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
                325                 330                 335

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
            340                 345                 350
```

<210> 166
<211> 383
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 166

```
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                   10                  15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95

Gly Ala Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His
            100                 105                 110

Ala Thr Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala
        115                 120                 125

Val Gln Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro
    130                 135                 140

Lys Val Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu
145                 150                 155                 160
```

```
Arg Pro Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu
                165                 170                 175

Lys Pro Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg
            180                 185                 190

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

Gly His Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe
    210                 215                 220

Arg Gln Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro
225                 230                 235                 240

Ser Gly Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly
                245                 250                 255

Leu His Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser
            260                 265                 270

Arg Arg Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg
        275                 280                 285

Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp
    290                 295                 300

Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln
305                 310                 315                 320

Cys Glu Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln
                325                 330                 335

Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys
            340                 345                 350

Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile
        355                 360                 365

Tyr Gly Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
    370                 375                 380


<210> 167
<211> 382
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 167
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                   10                  15
```

```
Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95

Gly Asp Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His
            100                 105                 110

Ala Thr Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala
        115                 120                 125

Val Gln Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro
    130                 135                 140

Lys Val Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu
145                 150                 155                 160

Arg Pro Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu
                165                 170                 175

Lys Pro Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg
            180                 185                 190

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

Gly His Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe
    210                 215                 220

Arg Gln Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro
225                 230                 235                 240

Ser Gly Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly
                245                 250                 255

Leu His Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser
            260                 265                 270

Gly Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg Cys
        275                 280                 285
```

```
Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp
    290                 295                 300

Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln Cys
305                 310                 315                 320

Glu Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln Gln
                325                 330                 335

Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met
            340                 345                 350

Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile Tyr
        355                 360                 365

Gly Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
    370                 375                 380


<210> 168
<211> 383
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 168
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                   10                  15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95

Gly Asp Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His
            100                 105                 110

Ala Thr Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala
        115                 120                 125
```

```
Val Gln Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro
    130                 135                 140

Lys Val Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu
145                 150                 155                 160

Arg Pro Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu
                165                 170                 175

Lys Pro Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg
            180                 185                 190

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

Gly His Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe
    210                 215                 220

Arg Gln Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro
225                 230                 235                 240

Ser Gly Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly
                245                 250                 255

Leu His Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Ala Ser
            260                 265                 270

Arg Ala Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg
        275                 280                 285

Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp
    290                 295                 300

Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln
305                 310                 315                 320

Cys Glu Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln
                325                 330                 335

Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys
            340                 345                 350

Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile
        355                 360                 365

Tyr Gly Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
    370                 375                 380
```

<210> 169
<211> 383
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 169

```
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                  10                  15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95

Gly Ala Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His
            100                 105                 110

Ala Thr Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala
        115                 120                 125

Val Gln Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro
    130                 135                 140

Lys Val Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu
145                 150                 155                 160

Arg Pro Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu
                165                 170                 175

Lys Pro Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg
            180                 185                 190

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

Gly His Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe
    210                 215                 220

Arg Gln Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro
225                 230                 235                 240

Ser Gly Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly
                245                 250                 255
```

Leu His Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Ala Ser
260 265 270

Arg Ala Asn Leu Gly Leu Asp Cys Asp Glu His Ser Ser Glu Ser Arg
275 280 285

Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp
290 295 300

Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Gln
305 310 315 320

Cys Glu Tyr Met Phe Met Gln Lys Tyr Pro His Thr His Leu Val Gln
325 330 335

Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys
340 345 350

Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys Gln Gln Ile Ile
355 360 365

Tyr Gly Lys Ile Pro Gly Met Val Val Asp Arg Cys Gly Cys Ser
370 375 380

<210> 170
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 170
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1 5 10 15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
20 25 30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
35 40 45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
50 55 60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65 70 75 80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
85 90 95

```
Gly Ala Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His
            100                 105                 110

Ala Thr Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala
        115                 120                 125

Val Gln Thr Asp Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro
    130                 135                 140

Lys Val Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu
145                 150                 155                 160

Arg Pro Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu
                165                 170                 175

Lys Pro Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg
            180                 185                 190

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

Gly His Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe
    210                 215                 220

Arg Gln Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro
225                 230                 235                 240

Ser Gly Thr Asp Leu Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly
                245                 250                 255

Leu His Pro Phe Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser
            260                 265                 270

Arg Arg
```

<210> 171
<211> 74
<212> PRT
<213> Homo sapiens

<400> 171

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60
```

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr
65 70

<210> 172
<211> 207
<212> PRT
<213> Homo sapiens

<400> 172
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65 70 75 80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
85 90 95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
100 105 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
115 120 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
130 135 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145 150 155 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile
195 200 205

<210> 173
<211> 316
<212> PRT
<213> Homo sapiens

<400> 173
Glu Ala Val Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly
1   5   10   15

Glu Ser Ala Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys
            20   25   30

Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp
        35   40   45

Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser
    50   55   60

Glu Leu Arg Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu
65   70   75   80

Leu Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu
                85   90   95

Tyr Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu
            100   105   110

Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp Val Thr Gly
        115   120   125

Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu Gly Phe Arg
    130   135   140

Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val
145   150   155   160

Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile
                165   170   175

His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu
            180   185   190

Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr
        195   200   205

Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu
    210   215   220

Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro
225   230   235   240

Lys Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp
                245   250   255

Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His
            260   265   270

Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu
275 280 285

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

Leu Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser
305 310 315

<210> 174
<211> 315
<212> PRT
<213> Homo sapiens

<400> 174
Ala Val Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu
1 5 10 15

Ser Ala Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu
20 25 30

Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys
35 40 45

Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu
50 55 60

Leu Arg Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu
65 70 75 80

Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr
85 90 95

Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu
100 105 110

Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp Val Thr Gly Val
115 120 125

Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu Gly Phe Arg Leu
130 135 140

Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp
145 150 155 160

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

Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg
180 185 190

```
Ala Gln His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn
        195                 200                 205

Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr
    210                 215                 220

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

Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser
                245                 250                 255

Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn
            260                 265                 270

Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro
        275                 280                 285

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

Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser
305                 310                 315


<210> 175
<211> 176
<212> PRT
<213> Homo sapiens

<400> 175
Tyr Tyr Ala Lys Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn
1               5                   10                  15

Glu Ile Tyr Asp Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe
            20                  25                  30

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

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

His Val Glu Leu Tyr Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu
65                  70                  75                  80

Ser Asn Arg Leu Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe
                85                  90                  95

Asp Val Thr Gly Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile
            100                 105                 110

Glu Gly Phe Arg Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn
        115                 120                 125
```

Thr Leu Gln Val Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp
130 135 140

Leu Ala Thr Ile His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala
145 150 155 160

Thr Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg
165 170 175

<210> 176
<211> 288
<212> PRT
<213> Homo sapiens

<400> 176
Tyr Tyr Ala Lys Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn
1 5 10 15

Glu Ile Tyr Asp Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe
20 25 30

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

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

His Val Glu Leu Tyr Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu
65 70 75 80

Ser Asn Arg Leu Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe
85 90 95

Asp Val Thr Gly Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile
100 105 110

Glu Gly Phe Arg Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn
115 120 125

Thr Leu Gln Val Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp
130 135 140

Leu Ala Thr Ile His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala
145 150 155 160

Thr Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg
165 170 175

Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys
180 185 190

Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys Trp
195 200 205

Ile His Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys
210 215 220

Pro Tyr Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu
225 230 235 240

Tyr Asn Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro
245 250 255

Gln Ala Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly Arg Lys Pro
260 265 270

Lys Val Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser
275 280 285

<210> 177
<211> 175
<212> PRT
<213> Homo sapiens

<400> 177
Tyr Ala Lys Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu
1 5 10 15

Ile Tyr Asp Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe
20 25 30

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

Arg Ala Glu Leu Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His
50 55 60

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

Asn Arg Leu Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp
85 90 95

Val Thr Gly Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu
100 105 110

Gly Phe Arg Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr
115 120 125

Leu Gln Val Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu
130 135 140

Ala Thr Ile His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr
145 150 155 160

```
Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg
                165                 170                 175


<210> 178
<211> 287
<212> PRT
<213> Homo sapiens

<400> 178
Tyr Ala Lys Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu
1               5                   10                  15


Ile Tyr Asp Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe
            20                  25                  30


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


Arg Ala Glu Leu Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His
    50                  55                  60


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


Asn Arg Leu Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp
                85                  90                  95


Val Thr Gly Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu
            100                 105                 110


Gly Phe Arg Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr
        115                 120                 125


Leu Gln Val Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu
    130                 135                 140


Ala Thr Ile His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr
145                 150                 155                 160


Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg Ala
                165                 170                 175


Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys Val
            180                 185                 190


Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile
        195                 200                 205


His Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys Pro
    210                 215                 220
```

Tyr Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr
225 230 235 240

Asn Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro Gln
245 250 255

Ala Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys
260 265 270

Val Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser
275 280 285

<210> 179
<211> 134
<212> PRT
<213> Homo sapiens

<400> 179
Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln His Leu Gln
1 5 10 15

Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser
20 25 30

Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys
35 40 45

Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr His Ala Asn
50 55 60

Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr Gln Tyr
65 70 75 80

Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly Ala Ser Ala
85 90 95

Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile Val Tyr
100 105 110

Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met Ile Val
115 120 125

Arg Ser Cys Lys Cys Ser
130

<210> 180
<211> 19
<212> PRT
<213> Homo sapiens

<400> 180
Gly Thr Ser Thr Tyr Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr
1 5 10 15

Arg Lys Lys

<210> 181
<211> 79
<212> PRT
<213> Homo sapiens

<400> 181
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
35 40 45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
50 55 60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu
65 70 75

<210> 182
<211> 201
<212> PRT
<213> Homo sapiens

<400> 182
Tyr Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu Ala
1 5 10 15

Glu His Asn Glu Leu Ala Val Cys Pro Lys Gly Ile Thr Ser Lys Val
20 25 30

Phe Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe
35 40 45

Arg Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg
50 55 60

Asn Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His
65 70 75 80

Ile Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly
85 90 95

Thr Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp
100 105 110

Leu Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys
115 120 125

Pro Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His
130 135 140

Glu Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His
145 150 155 160

Gly Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn
165 170 175

Pro His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro
180 185 190

Gly Gln Gly Gly Gln Arg Lys Lys Arg
195 200

<210> 183
<211> 75
<212> PRT
<213> Homo sapiens

<400> 183
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg
65 70 75

<210> 184
<211> 278
<212> PRT
<213> Homo sapiens

<400> 184
Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His Ala
1 5 10 15

Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu Met
20 25 30

Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys
35 40 45

Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg
50 55 60

Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu Ile
65 70 75 80

Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys
85 90 95

Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val Lys
100 105 110

Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile
115 120 125

Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe
130 135 140

Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys Val
145 150 155 160

Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp
165 170 175

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

Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys
195 200 205

Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr
210 215 220

Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala Gly
225 230 235 240

Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe
245 250 255

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

Asp Arg Cys Gly Cys Ser
275

<210> 185
<211> 288
<212> PRT
<213> Homo sapiens

<400> 185
Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
1 5 10 15

Gly Ser Leu Glu Asp Asp Asp Tyr His Ala Thr Thr Glu Thr Ile Ile
20 25 30

```
Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln Val Asp Gly Lys Pro
        35                  40                  45

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
    50                  55                  60

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
65                  70                  75                  80

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
                85                  90                  95

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
            100                 105                 110

Thr Gly Ile Trp Gln Ser Ile Asp Val Lys Thr Val Leu Gln Asn Trp
        115                 120                 125

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
    130                 135                 140

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
145                 150                 155                 160

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
                165                 170                 175

Ser Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser
            180                 185                 190

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

Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly
    210                 215                 220

Glu Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val
225                 230                 235                 240

His Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr
                245                 250                 255

Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile
            260                 265                 270

Ile Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
        275                 280                 285
```

<210> 186
<211> 168

<212> PRT
<213> Homo sapiens

<400> 186
Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Tyr His Ala Thr
1 5 10 15

Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln
20 25 30

Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile
35 40 45

Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro
50 55 60

Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys
65 70 75 80

Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu
85 90 95

Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val Lys Thr
100 105 110

Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu
115 120 125

Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro
130 135 140

Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr
145 150 155 160

Asp Thr Pro Lys Arg Ser Arg Arg
165

<210> 187
<211> 96
<212> PRT
<213> Homo sapiens

<400> 187
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1 5 10 15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
20 25 30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
35 40 45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
50 55 60

```
Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80


Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95


<210> 188
<211> 108
<212> PRT
<213> Homo sapiens

<400> 188
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                   10                  15


Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30


Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45


Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60


Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80


Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95


Gly Asp Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu
            100                 105


<210> 189
<211> 178
<212> PRT
<213> Homo sapiens

<400> 189
Gly Asp Ala Leu Gln Pro Glu Asp Phe Leu Glu Glu Asp Glu Tyr His
1               5                   10                  15


Ala Thr Thr Glu Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala
            20                  25                  30


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


Lys Val Met Phe Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu
    50                  55                  60


Arg Pro Val Pro Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu
65                  70                  75                  80
```

```
Lys Pro Leu Thr Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg
                85                  90                  95

Arg His Ile Arg Ile Arg Ser Leu Lys Ile Glu Leu His Ser Arg Ser
            100                 105                 110

Gly His Trp Gln Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe
        115                 120                 125

Arg Gln Pro Gln Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro
    130                 135                 140

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

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

Arg Arg
```

<210> 190
<211> 64
<212> PRT
<213> Homo sapiens

<400> 190

```
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1               5                   10                  15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
            20                  25                  30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
    50                  55                  60
```

<210> 191
<211> 76
<212> PRT
<213> Homo sapiens

<400> 191

```
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1               5                   10                  15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
            20                  25                  30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45
```

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
50 55 60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly
65 70 75

<210> 192
<211> 224
<212> PRT
<213> Homo sapiens

<400> 192
Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Glu Asn Gly Tyr
1 5 10 15

Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu
20 25 30

Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala
35 40 45

Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly Ser Asp Leu Ser
50 55 60

Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala
65 70 75 80

Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys
85 90 95

His Pro Gln Gly Ser Leu Asp Thr Gly Glu Glu Ala Glu Glu Val Gly
100 105 110

Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp
115 120 125

Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln
130 135 140

Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys
145 150 155 160

Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys
165 170 175

Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu
180 185 190

Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser His Arg Pro Phe
195 200 205

Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg
210 215 220

<210> 193
<211> 225
<212> PRT
<213> Homo sapiens

<400> 193
Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Glu Asn Gly Tyr
1 5 10 15

Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu
20 25 30

Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala
35 40 45

Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly Ser Asp Leu Ser
50 55 60

Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala
65 70 75 80

Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys
85 90 95

His Pro Gln Gly Ser Leu Asp Thr Gly Glu Glu Ala Glu Glu Val Gly
100 105 110

Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp
115 120 125

Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln
130 135 140

Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys
145 150 155 160

Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys
165 170 175

Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu
180 185 190

Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser His Arg Pro Phe
195 200 205

Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg
210 215 220

Arg
225

<210> 194
<211> 226
<212> PRT
<213> Homo sapiens

<400> 194
Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Glu Asn Gly Tyr
1 5 10 15

Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu
20 25 30

Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala
35 40 45

Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly Ser Asp Leu Ser
50 55 60

Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala
65 70 75 80

Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys
85 90 95

His Pro Gln Gly Ser Leu Asp Thr Gly Glu Glu Ala Glu Glu Val Gly
100 105 110

Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp
115 120 125

Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln
130 135 140

Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys
145 150 155 160

Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys
165 170 175

Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu
180 185 190

Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser His Arg Pro Phe
195 200 205

Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg
210 215 220

Arg Arg
225

<210> 195
<211> 213
<212> PRT
<213> Homo sapiens

<400> 195

```
Glu Asn Gly Tyr Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu
1               5                  10                  15

Met Asn Glu Leu Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu
            20                  25                  30

Ser Gly Thr Ala Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly
        35                  40                  45

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

Val Pro Lys Ala Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe
65                  70                  75                  80

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

Glu Glu Val Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu
            100                 105                 110

Lys Val Val Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser
        115                 120                 125

Ser Ser Ile Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val
    130                 135                 140

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

Leu Gly Lys Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys
                165                 170                 175

Gly Gly Gly Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser
            180                 185                 190

His Arg Pro Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro
        195                 200                 205

His Arg Arg Arg Arg
    210
```

<210> 196
<211> 214
<212> PRT
<213> Homo sapiens

<400> 196

```
Glu Asn Gly Tyr Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu
1               5                   10                  15

Met Asn Glu Leu Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu
            20                  25                  30

Ser Gly Thr Ala Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly
        35                  40                  45

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

Val Pro Lys Ala Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe
65                  70                  75                  80

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

Glu Glu Val Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu
            100                 105                 110

Lys Val Val Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser
        115                 120                 125

Ser Ser Ile Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val
    130                 135                 140

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

Leu Gly Lys Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys
                165                 170                 175

Gly Gly Gly Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser
            180                 185                 190

His Arg Pro Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro
        195                 200                 205

His Arg Arg Arg Arg Arg
    210
```

<210> 197
<211> 330
<212> PRT
<213> Homo sapiens

<400> 197

```
Glu Asn Gly Tyr Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu
1               5                   10                  15

Met Asn Glu Leu Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu
            20                  25                  30
```

```
Ser Gly Thr Ala Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly
        35                  40                  45

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

Val Pro Lys Ala Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe
65                  70                  75                  80

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

Glu Glu Val Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu
            100                 105                 110

Lys Val Val Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser
        115                 120                 125

Ser Ser Ile Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val
    130                 135                 140

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

Leu Gly Lys Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys
                165                 170                 175

Gly Gly Gly Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser
            180                 185                 190

His Arg Pro Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro
        195                 200                 205

His Arg Arg Arg Arg Arg Gly Leu Glu Cys Asp Gly Lys Val Asn Ile
    210                 215                 220

Cys Cys Lys Lys Gln Phe Phe Val Ser Phe Lys Asp Ile Gly Trp Asn
225                 230                 235                 240

Asp Trp Ile Ile Ala Pro Ser Gly Tyr His Ala Asn Tyr Cys Glu Gly
                245                 250                 255

Glu Cys Pro Ser His Ile Ala Gly Thr Ser Gly Ser Ser Leu Ser Phe
            260                 265                 270

His Ser Thr Val Ile Asn His Tyr Arg Met Arg Gly His Ser Pro Phe
        275                 280                 285

Ala Asn Leu Lys Ser Cys Cys Val Pro Thr Lys Leu Arg Pro Met Ser
    290                 295                 300
```

Met Leu Tyr Tyr Asp Asp Gly Gln Asn Ile Ile Lys Lys Asp Ile Gln
305 310 315 320

Asn Met Ile Val Glu Glu Cys Gly Cys Ser
325 330

<210> 198
<211> 116
<212> PRT
<213> Homo sapiens

<400> 198
Gly Leu Glu Cys Asp Gly Lys Val Asn Ile Cys Cys Lys Lys Gln Phe
1 5 10 15

Phe Val Ser Phe Lys Asp Ile Gly Trp Asn Asp Trp Ile Ile Ala Pro
20 25 30

Ser Gly Tyr His Ala Asn Tyr Cys Glu Gly Glu Cys Pro Ser His Ile
35 40 45

Ala Gly Thr Ser Gly Ser Ser Leu Ser Phe His Ser Thr Val Ile Asn
50 55 60

His Tyr Arg Met Arg Gly His Ser Pro Phe Ala Asn Leu Lys Ser Cys
65 70 75 80

Cys Val Pro Thr Lys Leu Arg Pro Met Ser Met Leu Tyr Tyr Asp Asp
85 90 95

Gly Gln Asn Ile Ile Lys Lys Asp Ile Gln Asn Met Ile Val Glu Glu
100 105 110

Cys Gly Cys Ser
115

<210> 199
<211> 395
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 199
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

```
Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
    50                  55                  60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65                  70                  75                  80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
                85                  90                  95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
            100                 105                 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
    130                 135                 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145                 150                 155                 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
                165                 170                 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
            180                 185                 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225                 230                 235                 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser
                245                 250                 255

Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu
            260                 265                 270

Glu Ser Gln Gln Thr Asn Arg Arg Lys Lys Arg Ala Leu Asp Thr Asn
        275                 280                 285

Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr
    290                 295                 300

Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys
305                 310                 315                 320
```

```
Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser
                325                 330                 335

Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn
            340                 345                 350

Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro
        355                 360                 365

Leu Pro Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu
    370                 375                 380

Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser
385                 390                 395


<210> 200
<211> 392
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 200
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1               5                   10                  15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
        35                  40                  45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
    50                  55                  60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65                  70                  75                  80

Tyr Ala Lys Glu Ile His Lys Phe Asp Met Ile Gln Gly Leu Ala Glu
                85                  90                  95

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

Arg Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg
        115                 120                 125

Ala Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn
    130                 135                 140
```

```
Glu Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile
145                 150                 155                 160

Ala Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr
                165                 170                 175

Ala Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu
            180                 185                 190

Leu Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro
        195                 200                 205

Cys His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu
    210                 215                 220

Val Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly
225                 230                 235                 240

Arg Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn Pro
                245                 250                 255

His Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly
            260                 265                 270

Gln Gly Gly Gln Arg Lys Lys Arg Ala Leu Asp Thr Asn Tyr Cys Phe
        275                 280                 285

Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe
    290                 295                 300

Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr His
305                 310                 315                 320

Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr
                325                 330                 335

Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly Ala
            340                 345                 350

Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile
        355                 360                 365

Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met
    370                 375                 380

Ile Val Arg Ser Cys Lys Cys Ser
385                 390
```

<210> 201
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 201

```
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1               5                  10                  15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
        195                 200                 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255
```

```
Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285

His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360


<210> 202
<211> 366
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 202
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1               5                   10                  15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
        35                  40                  45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
    50                  55                  60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65                  70                  75                  80

Ala Lys Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu Ile
                85                  90                  95

Tyr Asp Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn
            100                 105                 110
```

```
Thr Ser Glu Leu Arg Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg
        115                 120                 125

Ala Glu Leu Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His Val
    130                 135                 140

Glu Leu Tyr Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn
145                 150                 155                 160

Arg Leu Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp Val
                165                 170                 175

Thr Gly Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu Gly
            180                 185                 190

Phe Arg Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu
        195                 200                 205

Gln Val Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala
    210                 215                 220

Thr Ile His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro
225                 230                 235                 240

Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg Ala Leu
                245                 250                 255

Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg
            260                 265                 270

Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His
        275                 280                 285

Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr
    290                 295                 300

Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn
305                 310                 315                 320

Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala
                325                 330                 335

Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val
            340                 345                 350

Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360                 365
```

<210> 203
<211> 387
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 203

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Tyr Ala Lys Glu Ile
65                  70                  75                  80

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

Val Cys Pro Lys Gly Ile Thr Ser Lys Val Phe Arg Phe Asn Val Ser
            100                 105                 110

Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg Ala Glu Phe Arg Val
        115                 120                 125

Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn Glu Gln Arg Ile Glu
    130                 135                 140

Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile Ala Lys Gln Arg Tyr
145                 150                 155                 160

Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr Ala Glu Trp Leu Ser
                165                 170                 175

Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu Leu Arg Arg Glu Ser
            180                 185                 190

Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro Cys His Thr Phe Gln
        195                 200                 205

Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu Val Met Glu Ile Lys
    210                 215                 220

Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly Arg Gly Asp Leu Gly
225                 230                 235                 240

Arg Leu Lys Lys Gln Lys Asp His His Asn Pro His Leu Ile Leu Met
                245                 250                 255
```

Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly Gln Gly Gly Gln Arg
260 265 270

Lys Lys Arg Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys
275 280 285

Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly
290 295 300

Trp Lys Trp Ile His Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu
305 310 315 320

Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val
325 330 335

Leu Ala Leu Tyr Asn Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys
340 345 350

Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly
355 360 365

Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys
370 375 380

Lys Cys Ser
385

<210> 204
<211> 366
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 204
Ser Leu Ser Leu Ser Thr Cys Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
35 40 45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
50 55 60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65 70 75 80

```
Ala Lys Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu Ile
                85                  90                  95

Tyr Asp Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn
            100                 105                 110

Thr Ser Glu Leu Arg Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg
        115                 120                 125

Ala Glu Leu Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His Val
    130                 135                 140

Glu Leu Tyr Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn
145                 150                 155                 160

Arg Leu Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp Val
                165                 170                 175

Thr Gly Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu Gly
            180                 185                 190

Phe Arg Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu
        195                 200                 205

Gln Val Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala
    210                 215                 220

Thr Ile His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro
225                 230                 235                 240

Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg Ala Leu
                245                 250                 255

Asp Thr Asn Tyr Cys Phe Arg Asn Leu Glu Glu Asn Cys Cys Val Arg
            260                 265                 270

Pro Leu Tyr Ile Asp Phe Arg Gln Asp Leu Gly Trp Lys Trp Val His
        275                 280                 285

Glu Pro Lys Gly Tyr Tyr Ala Asn Phe Cys Ser Gly Pro Cys Pro Tyr
    290                 295                 300

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

Thr Leu Asn Pro Glu Ala Ser Ala Ser Pro Cys Cys Val Pro Gln Asp
                325                 330                 335

Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Val Gly Arg Thr Pro Lys Val
            340                 345                 350
```

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

<210> 205
<211> 360
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 205
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65 70 75 80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
85 90 95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
100 105 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
115 120 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
130 135 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145 150 155 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Gly
195 200 205

Thr Ser Thr Tyr Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg
210 215 220

```
Lys Lys Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln His
225                 230                 235                 240

Leu Gln Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys Phe
                245                 250                 255

Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe
            260                 265                 270

Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr His
        275                 280                 285

Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr
    290                 295                 300

Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly Ala
305                 310                 315                 320

Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro Ile
                325                 330                 335

Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn Met
            340                 345                 350

Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
```

<210> 206
<211> 370
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 206

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

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80
```

```
Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Ala
        195                 200                 205

Gly Ile Asp Gly Thr Ser Thr Tyr Thr Ser Gly Asp Gln Lys Thr Ile
    210                 215                 220

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

Met Ala Thr Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His
                245                 250                 255

Arg Arg Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn
            260                 265                 270

Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp
        275                 280                 285

Lys Trp Ile His Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly
    290                 295                 300

Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu
305                 310                 315                 320

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

Val Pro Gln Ala Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly Arg
            340                 345                 350
```

Lys Pro Lys Val Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys
355 360 365

Cys Ser
370

<210> 207
<211> 373
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 207
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1 5 10 15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
20 25 30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
35 40 45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
50 55 60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65 70 75 80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
85 90 95

Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His Ala Thr
100 105 110

Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln
115 120 125

Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile
130 135 140

Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro
145 150 155 160

Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys
165 170 175

Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu
180 185 190

Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val Lys Thr
195 200 205

Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu
210 215 220

Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro
225 230 235 240

Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr
245 250 255

Asp Thr Pro Lys Arg Ser Arg Arg Asn Leu Gly Leu Asp Cys Asp Glu
260 265 270

His Ser Ser Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe
275 280 285

Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala
290 295 300

Asn Tyr Cys Ser Gly Gln Cys Glu Tyr Met Phe Met Gln Lys Tyr Pro
305 310 315 320

His Thr His Leu Val Gln Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro
325 330 335

Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn
340 345 350

Asp Lys Gln Gln Ile Ile Tyr Gly Lys Ile Pro Gly Met Val Val Asp
355 360 365

Arg Cys Gly Cys Ser
370

<210> 208
<211> 374
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 208
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1 5 10 15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
20 25 30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
35 40 45

```
Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

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

Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His Ala
            100                 105                 110

Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu Met
        115                 120                 125

Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys
    130                 135                 140

Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg
145                 150                 155                 160

Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu Ile
                165                 170                 175

Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys
            180                 185                 190

Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val Lys
        195                 200                 205

Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile
    210                 215                 220

Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe
225                 230                 235                 240

Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys Val
                245                 250                 255

Thr Asp Thr Pro Lys Arg Ser Arg Arg Asn Leu Gly Leu Asp Cys Asp
            260                 265                 270

Glu His Ser Ser Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp
        275                 280                 285

Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys
    290                 295                 300

Ala Asn Tyr Cys Ser Gly Gln Cys Glu Tyr Met Phe Met Gln Lys Tyr
305                 310                 315                 320
```

Pro His Thr His Leu Val Gln Gln Ala Asn Pro Arg Gly Ser Ala Gly
325 330 335

Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe
340 345 350

Asn Asp Lys Gln Gln Ile Ile Tyr Gly Lys Ile Pro Gly Met Val Val
355 360 365

Asp Arg Cys Gly Cys Ser
370

<210> 209
<211> 264
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 209
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1 5 10 15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
20 25 30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
35 40 45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
50 55 60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65 70 75 80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
85 90 95

Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His Ala Thr
100 105 110

Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu Met Gln
115 120 125

Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile
130 135 140

Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro
145 150 155 160

Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys
165 170 175

```
Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu
            180                 185                 190

Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val Lys Thr
        195                 200                 205

Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu
    210                 215                 220

Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro
225                 230                 235                 240

Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr
                245                 250                 255

Asp Thr Pro Lys Arg Ser Arg Arg
            260
```

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 210

```
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                   10                  15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

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

Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His Ala
            100                 105                 110

Thr Thr Glu Thr Ile Ile Thr Met Pro Thr Glu Ser Asp Phe Leu Met
        115                 120                 125
```

Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys
130 135 140

Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg
145 150 155 160

Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu Ile
165 170 175

Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys
180 185 190

Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val Lys
195 200 205

Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile
210 215 220

Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe
225 230 235 240

Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys Val
245 250 255

Thr Asp Thr Pro Lys Arg Ser Arg Arg
260 265

<210> 211
<211> 419
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 211
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1 5 10 15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
20 25 30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
35 40 45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
50 55 60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65 70 75 80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
85 90 95

```
Glu Asn Gly Tyr Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu
            100                 105                 110

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

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

Ser Asp Leu Ser Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys
145                 150                 155                 160

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

Gln Gln Gln Lys His Pro Gln Gly Ser Leu Asp Thr Gly Glu Glu Ala
            180                 185                 190

Glu Glu Val Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu
        195                 200                 205

Lys Val Val Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser
    210                 215                 220

Ser Ser Ile Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val
225                 230                 235                 240

Arg Ile Ala Cys Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu
                245                 250                 255

Leu Gly Lys Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys
            260                 265                 270

Gly Gly Gly Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser
        275                 280                 285

His Arg Pro Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro
    290                 295                 300

His Arg Arg Arg Arg Arg Asn Leu Gly Leu Asp Cys Asp Glu His Ser
305                 310                 315                 320

Ser Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala
                325                 330                 335

Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr
            340                 345                 350

Cys Ser Gly Gln Cys Glu Tyr Met Phe Met Gln Lys Tyr Pro His Thr
        355                 360                 365
```

His Leu Val Gln Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys
370 375 380

Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Asp Lys
385 390 395 400

Gln Gln Ile Ile Tyr Gly Lys Ile Pro Gly Met Val Val Asp Arg Cys
405 410 415

Gly Cys Ser

<210> 212
<211> 421
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 212
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1 5 10 15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
20 25 30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
35 40 45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
50 55 60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65 70 75 80

Pro Lys Ala Pro Pro Leu Asn Ala Ile Arg Lys Leu His Val Gly Lys
85 90 95

Val Gly Glu Asn Gly Tyr Val Glu Ile Glu Asp Asp Ile Gly Arg Arg
100 105 110

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

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

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

```
Leu Lys Val Pro Lys Ala Asn Arg Thr Arg Thr Lys Val Thr Ile Arg
                165                 170                 175

Leu Phe Gln Gln Gln Lys His Pro Gln Gly Ser Leu Asp Thr Gly Glu
            180                 185                 190

Glu Ala Glu Glu Val Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu
        195                 200                 205

Ser Glu Lys Val Val Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro
    210                 215                 220

Val Ser Ser Ser Ile Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu
225                 230                 235                 240

Asp Val Arg Ile Ala Cys Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu
                245                 250                 255

Val Leu Leu Gly Lys Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys
            260                 265                 270

Lys Lys Gly Gly Gly Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu
        275                 280                 285

Gln Ser His Arg Pro Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp
    290                 295                 300

His Pro His Arg Arg Arg Arg Arg Asn Leu Gly Leu Asp Cys Asp Glu
305                 310                 315                 320

His Ser Ser Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe
                325                 330                 335

Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala
            340                 345                 350

Asn Tyr Cys Ser Gly Gln Cys Glu Tyr Met Phe Met Gln Lys Tyr Pro
        355                 360                 365

His Thr His Leu Val Gln Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro
    370                 375                 380

Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr Phe Asn
385                 390                 395                 400

Asp Lys Gln Gln Ile Ile Tyr Gly Lys Ile Pro Gly Met Val Val Asp
                405                 410                 415

Arg Cys Gly Cys Ser
            420
```

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

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 213

```
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                  10                  15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

Pro Lys Ala Pro Pro Leu Gln Gln Ile Leu Asp Leu His Asp Phe Gln
                85                  90                  95

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

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

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

Ser Asp Leu Ser Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys
145                 150                 155                 160

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

Gln Gln Gln Lys His Pro Gln Gly Ser Leu Asp Thr Gly Glu Glu Ala
            180                 185                 190

Glu Glu Val Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu
        195                 200                 205

Lys Val Val Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser
    210                 215                 220

Ser Ser Ile Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val
225                 230                 235                 240
```

```
Arg Ile Ala Cys Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu
                245                 250                 255

Leu Gly Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys
            260                 265                 270

Gly Gly Gly Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser
        275                 280                 285

His Arg Pro Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro
    290                 295                 300

His Arg Arg Arg Arg Arg
305                 310


<210> 214
<211> 312
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 214
Ala Glu Gly Pro Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
1               5                   10                  15

Ala Gly Val Gly Gly Glu Arg Ser Ser Arg Pro Ala Pro Ser Val Ala
            20                  25                  30

Pro Glu Pro Asp Gly Cys Pro Val Cys Val Trp Arg Gln His Ser Arg
        35                  40                  45

Glu Leu Arg Leu Glu Ser Ile Lys Ser Gln Ile Leu Ser Lys Leu Arg
    50                  55                  60

Leu Lys Glu Ala Pro Asn Ile Ser Arg Glu Val Val Lys Gln Leu Leu
65                  70                  75                  80

Pro Lys Ala Pro Pro Leu Asn Ala Ile Arg Lys Leu His Val Gly Lys
                85                  90                  95

Val Gly Glu Asn Gly Tyr Val Glu Ile Glu Asp Asp Ile Gly Arg Arg
            100                 105                 110

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

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

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

Leu Lys Val Pro Lys Ala Asn Arg Thr Arg Thr Lys Val Thr Ile Arg
165 170 175

Leu Phe Gln Gln Gln Lys His Pro Gln Gly Ser Leu Asp Thr Gly Glu
180 185 190

Glu Ala Glu Glu Val Gly Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu
195 200 205

Ser Glu Lys Val Val Asp Ala Arg Lys Ser Thr Trp His Val Phe Pro
210 215 220

Val Ser Ser Ser Ile Gln Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu
225 230 235 240

Asp Val Arg Ile Ala Cys Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu
245 250 255

Val Leu Leu Gly Lys Lys Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys
260 265 270

Lys Lys Gly Gly Gly Glu Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu
275 280 285

Gln Ser His Arg Pro Phe Leu Met Leu Gln Ala Arg Gln Ser Glu Asp
290 295 300

His Pro His Arg Arg Arg Arg Arg
305 310

<210> 215
<211> 362
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 215
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

```
Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Gly Asp Ala Leu Gln
65                  70                  75                  80

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

Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp Gly
            100                 105                 110

Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe Thr
        115                 120                 125

Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro Arg
    130                 135                 140

Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr Gly
145                 150                 155                 160

Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg Ile
                165                 170                 175

Arg Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln Ser
            180                 185                 190

Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln Ser
        195                 200                 205

Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp Leu
    210                 215                 220

Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His Pro Phe Met
225                 230                 235                 240

Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg Asp Phe Gly
                245                 250                 255

Leu Asp Cys Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro
            260                 265                 270

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

Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe
    290                 295                 300

Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg
305                 310                 315                 320

Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn
                325                 330                 335
```

Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro
340 345 350

Ala Met Val Val Asp Arg Cys Gly Cys Ser
355 360

<210> 216
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 216
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp Ala Leu Gln Pro
65 70 75 80

Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr Thr Glu Thr Val
85 90 95

Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp Gly Ser
100 105 110

Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe Thr Lys
115 120 125

Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro Arg Pro
130 135 140

Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr Gly Glu
145 150 155 160

Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg Ile Arg
165 170 175

Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln Ser Ile
180 185 190

Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln Ser Asn
195 200 205

Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp Leu Ala
210 215 220

Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His Pro Phe Met Glu
225 230 235 240

Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg Asp Phe Gly Leu
245 250 255

Asp Cys Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu
260 265 270

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

Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu
290 295 300

Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly
305 310 315 320

Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met
325 330 335

Leu Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala
340 345 350

Met Val Val Asp Arg Cys Gly Cys Ser
355 360

<210> 217
<211> 253
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 217
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Gly Asp Ala Leu Gln
65 70 75 80

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

Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp Gly
100 105 110

Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe Thr
115 120 125

Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro Arg
130 135 140

Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr Gly
145 150 155 160

Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg Ile
165 170 175

Arg Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln Ser
180 185 190

Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln Ser
195 200 205

Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp Leu
210 215 220

Ala Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His Pro Phe Met
225 230 235 240

Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg
245 250

<210> 218
<211> 361
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 218
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

```
Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp Ala Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr Thr Glu Thr Val
                85                  90                  95

Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp Gly Ser
            100                 105                 110

Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe Thr Lys
        115                 120                 125

Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro Arg Pro
    130                 135                 140

Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr Gly Glu
145                 150                 155                 160

Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg Ile Arg
                165                 170                 175

Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln Ser Ile
            180                 185                 190

Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln Ser Asn
        195                 200                 205

Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp Leu Ala
    210                 215                 220

Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His Pro Phe Met Glu
225                 230                 235                 240

Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg Asp Phe Gly Leu
                245                 250                 255

Asp Cys Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu
            260                 265                 270

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

Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu
    290                 295                 300
```

Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly
305 310 315 320

Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met
325 330 335

Leu Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala
340 345 350

Met Val Val Asp Arg Cys Gly Cys Ser
355 360

<210> 219
<211> 397
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 219
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Glu Asn Gly Tyr Val
65 70 75 80

Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu Met
85 90 95

Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala Arg
100 105 110

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

Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala Asn
130 135 140

Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys His
145 150 155 160

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

```
Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp Ala
            180                 185                 190

Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln Arg
        195                 200                 205

Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys Glu
    210                 215                 220

Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys Lys
225                 230                 235                 240

Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu Gly
                245                 250                 255

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

Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg Arg
        275                 280                 285

Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser Arg Cys Cys
    290                 295                 300

Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile
305                 310                 315                 320

Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu
                325                 330                 335

Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val His Gln Ala
            340                 345                 350

Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys Met Ser
        355                 360                 365

Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly
    370                 375                 380

Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
385                 390                 395


<210> 220
<211> 399
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 220
```

```
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                  10                  15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Glu Asn Gly Tyr
65                  70                  75                  80

Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu
                85                  90                  95

Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala
            100                 105                 110

Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly Ser Asp Leu Ser
        115                 120                 125

Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala
    130                 135                 140

Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys
145                 150                 155                 160

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

Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp
            180                 185                 190

Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln
        195                 200                 205

Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys
    210                 215                 220

Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys
225                 230                 235                 240

Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu
                245                 250                 255

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

Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg
275 280 285

Arg Arg Asp Phe Gly Leu Asp Cys Asp Glu His Ser Thr Glu Ser Arg
290 295 300

Cys Cys Arg Tyr Pro Leu Thr Val Asp Phe Glu Ala Phe Gly Trp Asp
305 310 315 320

Trp Ile Ile Ala Pro Lys Arg Tyr Lys Ala Asn Tyr Cys Ser Gly Glu
325 330 335

Cys Glu Phe Val Phe Leu Gln Lys Tyr Pro His Thr His Leu Val His
340 345 350

Gln Ala Asn Pro Arg Gly Ser Ala Gly Pro Cys Cys Thr Pro Thr Lys
355 360 365

Met Ser Pro Ile Asn Met Leu Tyr Phe Asn Gly Lys Glu Gln Ile Ile
370 375 380

Tyr Gly Lys Ile Pro Ala Met Val Val Asp Arg Cys Gly Cys Ser
385 390 395

<210> 221
<211> 289
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 221
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1 5 10 15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
20 25 30

Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
35 40 45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Glu Asn Gly Tyr Val
65 70 75 80

Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu Met
85 90 95

Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala Arg
100 105 110

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

Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala Asn
    130                 135                 140

Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys His
145                 150                 155                 160

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

Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp Ala
            180                 185                 190

Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln Arg
        195                 200                 205

Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys Glu
    210                 215                 220

Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys Lys
225                 230                 235                 240

Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu Gly
                245                 250                 255

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

Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg Arg
        275                 280                 285

Arg
```

<210> 222
<211> 290
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 222

```
Asn Glu Asn Ser Glu Gln Lys Glu Asn Val Glu Lys Glu Gly Leu Cys
1               5                   10                  15

Asn Ala Cys Thr Trp Arg Gln Asn Thr Lys Ser Ser Arg Ile Glu Ala
            20                  25                  30
```

```
Ile Lys Ile Gln Ile Leu Ser Lys Leu Arg Leu Glu Thr Ala Pro Asn
        35                  40                  45

Ile Ser Lys Asp Val Ile Arg Gln Leu Leu Pro Lys Ala Pro Pro Leu
    50                  55                  60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Glu Asn Gly Tyr
65                  70                  75                  80

Val Glu Ile Glu Asp Asp Ile Gly Arg Arg Ala Glu Met Asn Glu Leu
                85                  90                  95

Met Glu Gln Thr Ser Glu Ile Ile Thr Phe Ala Glu Ser Gly Thr Ala
            100                 105                 110

Arg Lys Thr Leu His Phe Glu Ile Ser Lys Glu Gly Ser Asp Leu Ser
        115                 120                 125

Val Val Glu Arg Ala Glu Val Trp Leu Phe Leu Lys Val Pro Lys Ala
    130                 135                 140

Asn Arg Thr Arg Thr Lys Val Thr Ile Arg Leu Phe Gln Gln Gln Lys
145                 150                 155                 160

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

Leu Lys Gly Glu Arg Ser Glu Leu Leu Leu Ser Glu Lys Val Val Asp
            180                 185                 190

Ala Arg Lys Ser Thr Trp His Val Phe Pro Val Ser Ser Ser Ile Gln
        195                 200                 205

Arg Leu Leu Asp Gln Gly Lys Ser Ser Leu Asp Val Arg Ile Ala Cys
    210                 215                 220

Glu Gln Cys Gln Glu Ser Gly Ala Ser Leu Val Leu Leu Gly Lys Lys
225                 230                 235                 240

Lys Lys Lys Glu Glu Glu Gly Glu Gly Lys Lys Lys Gly Gly Gly Glu
                245                 250                 255

Gly Gly Ala Gly Ala Asp Glu Glu Lys Glu Gln Ser His Arg Pro Phe
            260                 265                 270

Leu Met Leu Gln Ala Arg Gln Ser Glu Asp His Pro His Arg Arg Arg
        275                 280                 285

Arg Arg
    290
```

<210> 223
<211> 360
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 223

```
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1               5                   10                  15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
            20                  25                  30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
    50                  55                  60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Asp Asp Ser Ser
65                  70                  75                  80

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

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

Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys
        115                 120                 125

Val Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro
    130                 135                 140

Thr Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp
145                 150                 155                 160

Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro
                165                 170                 175

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

Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu
        195                 200                 205

Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu
    210                 215                 220

Asp Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys
225                 230                 235                 240
```

```
Arg Ser Arg Arg Gly Leu Glu Cys Asp Gly Lys Val Asn Ile Cys Cys
                245                 250                 255

Lys Lys Gln Phe Phe Val Ser Phe Lys Asp Ile Gly Trp Asn Asp Trp
            260                 265                 270

Ile Ile Ala Pro Ser Gly Tyr His Ala Asn Tyr Cys Glu Gly Glu Cys
        275                 280                 285

Pro Ser His Ile Ala Gly Thr Ser Gly Ser Ser Leu Ser Phe His Ser
    290                 295                 300

Thr Val Ile Asn His Tyr Arg Met Arg Gly His Ser Pro Phe Ala Asn
305                 310                 315                 320

Leu Lys Ser Cys Cys Val Pro Thr Lys Leu Arg Pro Met Ser Met Leu
                325                 330                 335

Tyr Tyr Asp Asp Gly Gln Asn Ile Ile Lys Lys Asp Ile Gln Asn Met
            340                 345                 350

Ile Val Glu Glu Cys Gly Cys Ser
        355                 360


<210> 224
<211> 359
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 224
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1               5                   10                  15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
            20                  25                  30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
    50                  55                  60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65                  70                  75                  80

Gly Ser Leu Glu Asp Asp Asp Tyr His Ala Thr Thr Glu Thr Ile Ile
                85                  90                  95
```

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
        115                 120                 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
    130                 135                 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145                 150                 155                 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
                165                 170                 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
        195                 200                 205

Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg Gly Leu Glu Cys Asp Gly Lys Val Asn Ile Cys Cys Lys
                245                 250                 255

Lys Gln Phe Phe Val Ser Phe Lys Asp Ile Gly Trp Asn Asp Trp Ile
            260                 265                 270

Ile Ala Pro Ser Gly Tyr His Ala Asn Tyr Cys Glu Gly Glu Cys Pro
        275                 280                 285

Ser His Ile Ala Gly Thr Ser Gly Ser Ser Leu Ser Phe His Ser Thr
    290                 295                 300

Val Ile Asn His Tyr Arg Met Arg Gly His Ser Pro Phe Ala Asn Leu
305                 310                 315                 320

Lys Ser Cys Cys Val Pro Thr Lys Leu Arg Pro Met Ser Met Leu Tyr
                325                 330                 335

Tyr Asp Asp Gly Gln Asn Ile Ile Lys Lys Asp Ile Gln Asn Met Ile
            340                 345                 350

Val Glu Glu Cys Gly Cys Ser
        355
```

<210> 225
<211> 244
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 225

```
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1               5                   10                  15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
            20                  25                  30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
    50                  55                  60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Asp Asp Ser Ser
65                  70                  75                  80

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

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

Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys
        115                 120                 125

Val Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro
    130                 135                 140

Thr Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp
145                 150                 155                 160

Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro
                165                 170                 175

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

Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu
        195                 200                 205

Asp Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu
    210                 215                 220

Asp Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys
225                 230                 235                 240
```

Arg Ser Arg Arg

<210> 226
<211> 243
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 226
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1 5 10 15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
20 25 30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
35 40 45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
50 55 60

Arg Glu Leu Ile Asp Gln Tyr Asp Val Gln Arg Asp Asp Ser Ser Asp
65 70 75 80

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

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

Lys Cys Cys Phe Phe Lys Phe Ser Ser Lys Ile Gln Tyr Asn Lys Val
115 120 125

Val Lys Ala Gln Leu Trp Ile Tyr Leu Arg Pro Val Glu Thr Pro Thr
130 135 140

Thr Val Phe Val Gln Ile Leu Arg Leu Ile Lys Pro Met Lys Asp Gly
145 150 155 160

Thr Arg Tyr Thr Gly Ile Arg Ser Leu Lys Leu Asp Met Asn Pro Gly
165 170 175

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

Leu Lys Gln Pro Glu Ser Asn Leu Gly Ile Glu Ile Lys Ala Leu Asp
195 200 205

```
Glu Asn Gly His Asp Leu Ala Val Thr Phe Pro Gly Pro Gly Glu Asp
    210                 215                 220

Gly Leu Asn Pro Phe Leu Glu Val Lys Val Thr Asp Thr Pro Lys Arg
225                 230                 235                 240

Ser Arg Arg
```

<210> 227
<211> 370
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 227

```
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1               5                   10                  15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
            20                  25                  30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
    50                  55                  60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Gly Asp Ala Leu
65                  70                  75                  80

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

Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp
            100                 105                 110

Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe
        115                 120                 125

Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro
    130                 135                 140

Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr
145                 150                 155                 160

Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg
                165                 170                 175

Ile Arg Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln
            180                 185                 190
```

Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln
195 200 205

Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp
210 215 220

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

Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg Gly Leu
245 250 255

Glu Cys Asp Gly Lys Val Asn Ile Cys Cys Lys Lys Gln Phe Phe Val
260 265 270

Ser Phe Lys Asp Ile Gly Trp Asn Asp Trp Ile Ile Ala Pro Ser Gly
275 280 285

Tyr His Ala Asn Tyr Cys Glu Gly Glu Cys Pro Ser His Ile Ala Gly
290 295 300

Thr Ser Gly Ser Ser Leu Ser Phe His Ser Thr Val Ile Asn His Tyr
305 310 315 320

Arg Met Arg Gly His Ser Pro Phe Ala Asn Leu Lys Ser Cys Cys Val
325 330 335

Pro Thr Lys Leu Arg Pro Met Ser Met Leu Tyr Tyr Asp Asp Gly Gln
340 345 350

Asn Ile Ile Lys Lys Asp Ile Gln Asn Met Ile Val Glu Glu Cys Gly
355 360 365

Cys Ser
370

<210> 228
<211> 368
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 228
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1 5 10 15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
20 25 30

```
Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
    50                  55                  60

Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp Ala Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr Thr Glu Thr Val
                85                  90                  95

Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp Gly Ser
            100                 105                 110

Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe Thr Lys
        115                 120                 125

Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro Arg Pro
    130                 135                 140

Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr Gly Glu
145                 150                 155                 160

Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg Ile Arg
                165                 170                 175

Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln Ser Ile
            180                 185                 190

Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln Ser Asn
        195                 200                 205

Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp Leu Ala
    210                 215                 220

Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His Pro Phe Met Glu
225                 230                 235                 240

Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg Gly Leu Glu Cys
                245                 250                 255

Asp Gly Lys Val Asn Ile Cys Cys Lys Lys Gln Phe Phe Val Ser Phe
            260                 265                 270

Lys Asp Ile Gly Trp Asn Asp Trp Ile Ile Ala Pro Ser Gly Tyr His
        275                 280                 285

Ala Asn Tyr Cys Glu Gly Glu Cys Pro Ser His Ile Ala Gly Thr Ser
    290                 295                 300
```

Gly Ser Ser Leu Ser Phe His Ser Thr Val Ile Asn His Tyr Arg Met
305 310 315 320

Arg Gly His Ser Pro Phe Ala Asn Leu Lys Ser Cys Cys Val Pro Thr
325 330 335

Lys Leu Arg Pro Met Ser Met Leu Tyr Tyr Asp Asp Gly Gln Asn Ile
340 345 350

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

<210> 229
<211> 254
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 229
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1 5 10 15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
20 25 30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
35 40 45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
50 55 60

Asn Ala Ile Arg Lys Leu His Val Gly Lys Val Gly Gly Asp Ala Leu
65 70 75 80

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

Thr Val Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp
100 105 110

Gly Ser Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe
115 120 125

Thr Lys Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro
130 135 140

Arg Pro Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr
145 150 155 160

Gly Glu Gly Thr Ala Gly Gly Gly Gly Gly Gly Arg Arg His Ile Arg
165 170 175

```
Ile Arg Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln
            180                 185                 190

Ser Ile Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln
        195                 200                 205

Ser Asn Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp
    210                 215                 220

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

Met Glu Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg
                245                 250

<210> 230
<211> 252
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 230
Ser Pro Thr Pro Gly Ser Glu Gly His Ser Ala Ala Pro Asp Cys Pro
1               5                   10                  15

Ser Cys Ala Leu Ala Ala Leu Pro Lys Asp Val Pro Asn Ser Gln Pro
            20                  25                  30

Glu Met Val Glu Ala Val Lys Lys His Ile Leu Asn Met Leu His Leu
        35                  40                  45

Lys Lys Arg Pro Asp Val Thr Gln Pro Val Pro Lys Ala Ala Leu Leu
    50                  55                  60

Gln Gln Ile Leu Asp Leu His Asp Phe Gln Gly Asp Ala Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Leu Glu Glu Asp Glu Tyr His Ala Thr Thr Glu Thr Val
                85                  90                  95

Ile Ser Met Ala Gln Glu Thr Asp Pro Ala Val Gln Thr Asp Gly Ser
            100                 105                 110

Pro Leu Cys Cys His Phe His Phe Ser Pro Lys Val Met Phe Thr Lys
        115                 120                 125

Val Leu Lys Ala Gln Leu Trp Val Tyr Leu Arg Pro Val Pro Arg Pro
    130                 135                 140
```

Ala Thr Val Tyr Leu Gln Ile Leu Arg Leu Lys Pro Leu Thr Gly Glu
145 150 155 160

Gly Thr Ala Gly Gly Gly Gly Gly Arg Arg His Ile Arg Ile Arg
165 170 175

Ser Leu Lys Ile Glu Leu His Ser Arg Ser Gly His Trp Gln Ser Ile
180 185 190

Asp Phe Lys Gln Val Leu His Ser Trp Phe Arg Gln Pro Gln Ser Asn
195 200 205

Trp Gly Ile Glu Ile Asn Ala Phe Asp Pro Ser Gly Thr Asp Leu Ala
210 215 220

Val Thr Ser Leu Gly Pro Gly Ala Glu Gly Leu His Pro Phe Met Glu
225 230 235 240

Leu Arg Val Leu Glu Asn Thr Lys Arg Ser Arg Arg
245 250

<210> 231
<211> 386
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 231
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Ile His
65 70 75 80

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

Cys Pro Lys Gly Ile Thr Ser Lys Val Phe Arg Phe Asn Val Ser Ser
100 105 110

Val Glu Lys Asn Arg Thr Asn Leu Phe Arg Ala Glu Phe Arg Val Leu
115 120 125

```
Arg Val Pro Asn Pro Ser Ser Lys Arg Asn Glu Gln Arg Ile Glu Leu
    130                 135                 140

Phe Gln Ile Leu Arg Pro Asp Glu His Ile Ala Lys Gln Arg Tyr Ile
145                 150                 155                 160

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

Asp Val Thr Asp Thr Val Arg Glu Trp Leu Leu Arg Arg Glu Ser Asn
            180                 185                 190

Leu Gly Leu Glu Ile Ser Ile His Cys Pro Cys His Thr Phe Gln Pro
        195                 200                 205

Asn Gly Asp Ile Leu Glu Asn Ile His Glu Val Met Glu Ile Lys Phe
    210                 215                 220

Lys Gly Val Asp Asn Glu Asp Asp His Gly Arg Gly Asp Leu Gly Arg
225                 230                 235                 240

Leu Lys Lys Gln Lys Asp His His Asn Pro His Leu Ile Leu Met Met
                245                 250                 255

Ile Pro Pro His Arg Leu Asp Asn Pro Gly Gln Gly Gly Gln Arg Lys
            260                 265                 270

Lys Arg Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn
        275                 280                 285

Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp
    290                 295                 300

Lys Trp Ile His Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly
305                 310                 315                 320

Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu
                325                 330                 335

Ala Leu Tyr Asn Gln His Asn Pro Gly Ala Ser Ala Ala Pro Cys Cys
            340                 345                 350

Val Pro Gln Ala Leu Glu Pro Leu Pro Ile Val Tyr Tyr Val Gly Arg
        355                 360                 365

Lys Pro Lys Val Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys
    370                 375                 380

Cys Ser
385
```

<210> 232
<211> 370
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 232
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65 70 75 80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
85 90 95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
100 105 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
115 120 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
130 135 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145 150 155 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
195 200 205

Gly Phe Thr Gly Thr Ser Thr Tyr Thr Ser Gly Asp Gln Lys Thr Ile
210 215 220

```
Lys Ser Thr Arg Lys Lys His Gly Met Asn Arg Pro Phe Leu Leu Leu
225                 230                 235                 240

Met Ala Thr Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His
                245                 250                 255

Arg Arg Ala Leu Asp Thr Asn Tyr Cys Phe Ser Ser Thr Glu Lys Asn
            260                 265                 270

Cys Cys Val Arg Gln Leu Tyr Ile Asp Phe Arg Lys Asp Leu Gly Trp
        275                 280                 285

Lys Trp Ile His Glu Pro Lys Gly Tyr His Ala Asn Phe Cys Leu Gly
    290                 295                 300

Pro Cys Pro Tyr Ile Trp Ser Leu Asp Thr Gln Tyr Ser Lys Val Leu
305                 310                 315                 320

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

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

Lys Pro Lys Val Glu Gln Leu Ser Asn Met Ile Val Arg Ser Cys Lys
        355                 360                 365

Cys Ser
    370


<210> 233
<211> 367
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 233
Ser Leu Ser Leu Ser Thr Ser Thr Thr Leu Asp Phe Gly His Ile Lys
1               5                   10                  15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
        35                  40                  45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
    50                  55                  60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65                  70                  75                  80
```

```
Tyr Ala Lys Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu
                85                  90                  95

Ile Tyr Asp Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe
            100                 105                 110

Asn Thr Ser Glu Leu Arg Glu Ala Val Pro Glu Pro Val Leu Leu Ser
        115                 120                 125

Arg Ala Glu Leu Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His
    130                 135                 140

Val Glu Leu Tyr Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser
145                 150                 155                 160

Asn Arg Leu Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp
                165                 170                 175

Val Thr Gly Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu
            180                 185                 190

Gly Phe Arg Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr
        195                 200                 205

Leu Gln Val Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu
    210                 215                 220

Ala Thr Ile His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr
225                 230                 235                 240

Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg Ala
                245                 250                 255

Leu Asp Thr Asn Tyr Cys Phe Arg Asn Leu Glu Glu Asn Cys Cys Val
            260                 265                 270

Arg Pro Leu Tyr Ile Asp Phe Arg Gln Asp Leu Gly Trp Lys Trp Val
        275                 280                 285

His Glu Pro Lys Gly Tyr Tyr Ala Asn Phe Cys Ser Gly Pro Cys Pro
    290                 295                 300

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

Asn Thr Leu Asn Pro Glu Ala Ser Ala Ser Pro Cys Cys Val Pro Gln
                325                 330                 335

Asp Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Val Gly Arg Thr Pro Lys
            340                 345                 350
```

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

<210> 234
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 234
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1 5 10 15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
20 25 30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Ile His
65 70 75 80

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

Cys Pro Lys Gly Ile Thr Ser Lys Val Phe Arg Phe Asn Val Ser Ser
100 105 110

Val Glu Lys Asn Arg Thr Asn Leu Phe Arg Ala Glu Phe Arg Val Leu
115 120 125

Arg Val Pro Asn Pro Ser Ser Lys Arg Asn Glu Gln Arg Ile Glu Leu
130 135 140

Phe Gln Ile Leu Arg Pro Asp Glu His Ile Ala Lys Gln Arg Tyr Ile
145 150 155 160

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

Asp Val Thr Asp Thr Val Arg Glu Trp Leu Leu Arg Arg Glu Ser Asn
180 185 190

Leu Gly Leu Glu Ile Ser Ile His Cys Pro Cys His Thr Phe Gln Pro
195 200 205

Asn Gly Asp Ile Leu Glu Asn Ile His Glu Val Met Glu Ile Lys Phe
210 215 220

Lys Gly Val Asp Asn Glu Asp Asp His Gly Arg Gly Asp Leu Gly Arg
225 230 235 240

Leu Lys Lys Gln Lys Asp His His Asn Pro His Leu Ile Leu Met Met
245 250 255

Ile Pro Pro His Arg Leu Asp Asn Pro Gly Gln Gly Gly Gln Arg Lys
260 265 270

Lys Arg

<210> 235
<211> 255
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 235
Ser Leu Ser Leu Ser Thr Ser Thr Thr Leu Asp Phe Gly His Ile Lys
1 5 10 15

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

Leu Thr Ser Pro Pro Glu Pro Thr Val Met Thr His Val Pro Tyr Gln
35 40 45

Val Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His
50 55 60

Gly Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr
65 70 75 80

Tyr Ala Lys Glu Val Thr Arg Val Leu Met Val Glu Thr His Asn Glu
85 90 95

Ile Tyr Asp Lys Phe Lys Gln Ser Thr His Ser Ile Tyr Met Phe Phe
100 105 110

Asn Thr Ser Glu Leu Arg Glu Ala Val Pro Glu Pro Val Leu Leu Ser
115 120 125

Arg Ala Glu Leu Arg Leu Leu Arg Leu Lys Leu Lys Val Glu Gln His
130 135 140

Val Glu Leu Tyr Gln Lys Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser
145 150 155 160

```
Asn Arg Leu Leu Ala Pro Ser Asp Ser Pro Glu Trp Leu Ser Phe Asp
                165                 170                 175

Val Thr Gly Val Val Arg Gln Trp Leu Ser Arg Gly Gly Glu Ile Glu
            180                 185                 190

Gly Phe Arg Leu Ser Ala His Cys Ser Cys Asp Ser Arg Asp Asn Thr
        195                 200                 205

Leu Gln Val Asp Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu
    210                 215                 220

Ala Thr Ile His Gly Met Asn Arg Pro Phe Leu Leu Leu Met Ala Thr
225                 230                 235                 240

Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His Arg Arg
                245                 250                 255


<210> 236
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 236
Leu Ser Thr Ser Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1               5                   10                  15

Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

Pro Pro Ser Gln Gly Glu Val Pro Pro Gly Pro Leu Pro Glu Ala Val
        35                  40                  45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125
```

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
130 135 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145 150 155 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
195 200 205

Gly Phe Thr Gly Thr Ser Thr Tyr Thr Ser Gly Asp Gln Lys Thr Ile
210 215 220

Lys Ser Thr Arg Lys Lys His Gly Met Asn Arg Pro Phe Leu Leu Leu
225 230 235 240

Met Ala Thr Pro Leu Glu Arg Ala Gln His Leu Gln Ser Ser Arg His
245 250 255

Arg Arg

<210> 237
<211> 8
<212> PRT
<213> Homo sapiens

<400> 237
Ala Glu Ile Asp Gly Ile Glu Leu
1 5

<210> 238
<211> 7
<212> PRT
<213> Homo sapiens

<400> 238
Ser Val Val Tyr Gly Leu Arg
1 5

<210> 239
<211> 9
<212> PRT
<213> Homo sapiens

<400> 239
Glu Asp Asp Met Met Glu Val Pro Tyr
1 5

<210> 240
<211> 8

<212> PRT
<213> Homo sapiens

<400> 240
Ala Gly Ile Asp Gly Thr Ser Thr
1 5

<210> 241
<211> 21
<212> PRT
<213> Homo sapiens

<400> 241
Ile Asn Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His
1 5 10 15

Gly Met Asn Arg Pro
20

<210> 242
<211> 10
<212> PRT
<213> Homo sapiens

<400> 242
Ser Gly Arg Arg Gly Asp Leu Ala Thr Ile
1 5 10

<210> 243
<211> 10
<212> PRT
<213> Homo sapiens

<400> 243
Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile
1 5 10

<210> 244
<211> 27
<212> PRT
<213> Homo sapiens

<400> 244
Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly Arg Gly Asp Leu Gly
1 5 10 15

Arg Leu Lys Lys Gln Lys Asp His His Asn Pro
20 25

<210> 245
<211> 8
<212> PRT
<213> Homo sapiens

<400> 245
Pro Gly Glu Asp Gly Leu Asn Pro
1 5

<210> 246
<211> 8

<212> PRT
<213> Homo sapiens

<400> 246
Pro Gly Ala Glu Gly Leu His Pro
1 5

<210> 247
<211> 6
<212> PRT
<213> Homo sapiens

<400> 247
Arg Pro Glu Ala Thr Pro
1 5

<210> 248
<211> 21
<212> PRT
<213> Homo sapiens

<400> 248
Ser His Arg Lys Gly Cys Asp Thr Leu Asp Ile Ser Val Pro Pro Gly
1 5 10 15

Ser Arg Asn Leu Pro
20

<210> 249
<211> 21
<212> PRT
<213> Homo sapiens

<400> 249
Arg His Val Arg Ile Ser Arg Ser Leu His Gln Asp Glu His Ser Trp
1 5 10 15

Ser Gln Ile Arg Pro
20

<210> 250
<211> 21
<212> PRT
<213> Homo sapiens

<400> 250
Gln His Val Arg Ile Ser Arg Ser Leu Pro Gln Gly Ser Gly Asn Trp
1 5 10 15

Ala Gln Leu Arg Pro
20

<210> 251
<211> 11
<212> PRT
<213> Homo sapiens

<400> 251
Ile Gly Arg His Gly Pro Gln Asn Lys Gln Pro
1 5 10

<210> 252
<211> 11
<212> PRT
<213> Homo sapiens

<400> 252
Val Gly Arg Asp Gly Pro Tyr Asp Lys Gln Pro
1 5 10

<210> 253
<211> 11
<212> PRT
<213> Homo sapiens

<400> 253
Leu Gly Gln Arg Ala Pro Arg Ser Gln Gln Pro
1 5 10

<210> 254
<211> 14
<212> PRT
<213> Homo sapiens

<400> 254
Arg Phe Ala Ser Gln Gly Ala Pro Ala Gly Leu Gly Glu Pro
1 5 10

<210> 255
<211> 80
<212> RNA
<213> Woodchuck hepatitis virus

<400> 255
gccacggcgg aacucaucgc cgccugccuu gcccgcugcu ggacaggggc ucggcuguug 60

ggcacugaca auuccguggu 80

<210> 256
<211> 592
<212> DNA
<213> Woodchuck hepatitis virus

<400> 256
aatcaacctc tggattacaa aatttgtgaa agattgactg gtattcttaa ctatgttgct 60

ccttttacgc tatgtggata cgctgcttta atgcctttgt atcatgctat tgcttcccgt 120

atggctttca ttttctcctc cttgtataaa tcctggttgc tgtctcttta tgaggagttg 180

tggcccgttg tcaggcaacg tggcgtggtg tgcactgtgt ttgctgacgc aacccccact 240

ggttggggca ttgccaccac ctgtcagctc ctttccggga ctttcgcttt cccctccct 300

attgccacgg cggaactcat cgccgcctgc cttgcccgct gctggacagg ggctcggctg 360

ttgggcactg acaattccgt ggtgttgtcg gggaagctga cgtcctttcc atggctgctc 420

gcctgtgttg ccacctggat tctgcgcggg acgtccttct gctacgtccc ttcggccctc 480

aatccagcgg accttccttc ccgcggcctg ctgccggctc tgcggcctct tccgcgtctt 540

cgccttcgcc ctcagacgag tcggatctcc ctttgggccg cctccccgcc tg 592

<210> 257
<211> 22
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 257
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Phe Ser Gly Val Leu Gly
20

<210> 258
<211> 870
<212> DNA
<213> Homo sapiens

<400> 258
agcttaccat ggtaacccct ggtcccgttc agccaccacc accccaccca gcacacctcc 60

aacctcagcc agacaaggtt gttgacacaa gagagccctc aggggcacag agagagtctg 120

gacacgtggg gagtcagccg tgtatcatcg gaggcggccg ggcacatggc agggatgagg 180

gaaagaccaa gagtcctctg ttgggcccaa gtcctagaca gacaaaacct agacaatcac 240

gtggctggct gcatgcctgt ggctgttggg ctgggcagga ggagggaggg gcgctctttc 300

ctggaggtgg tccagagcac cgggtggaca gccctggggg aaaacttcca cgttttgatg 360

gaggttatct ttgataactc cacagtgacc tggttcgcca aaggaaaagc aggcaacgtg 420

agctgttttt tttttctcca agctgaacac taggggtcct aggctttttg ggtcacccgg 480

catggcagac agtcaacctg gcaggacatc cgggagagac agacacaggc agagggcaga 540

aaggtcaagg gaggttctca ggccaaggct attggggttt gctcaattgt tcctgaatgc 600

tcttacacac gtacacacac agagcagcac acacacacac acacacatgc ctcagcaagt 660

cccagagagg gaggtgtcga gggggacccg ctggctgttc agacggactc ccagagccag 720

tgagtgggtg gggctggaac atgagttcat ctatttcctg cccacatctg gtataaaagg 780

aggcagtggc ccacagagga gcacagctgt gtttggctgc agggccaaga gcgctgtcaa 840

gaagacccac acgccccccc ccagcagctg 870

<210> 259
<211> 973
<212> DNA
<213> Homo sapiens

<400> 259
ttggtctcct gtttccttac caagctttta ccatggtaac ccctggtccc gttcagccac 60

caccacccca cccagcacac ctccaacctc agccagacaa ggttgttgac acaagagagc 120

cctcaggggc acagagagag tctggacacg tggggagtca gccgtgtatc atcggaggcg 180

gccgggcaca tggcagggat gagggaaaga ccaagagtcc tctgttgggc ccaagtccta 240

gacagacaaa acctagacaa tcacgtggct ggctgcatgc cctgtggctg ttgggctggg 300

cccaggagga gggaggggcg ctctttcctg gaggtggtcc agagcaccgg gtggacagcc 360

ctgggggaaa acttccacgt tttgatggag gttatctttg ataactccac agtgacctgg 420

ttcgccaaag gaaaagcagg caacgtgagc tgtttttttt ttctccaagc tgaacactag 480

gggtcctagg ctttttgggt cacccggcat ggcagacagt caacctggca ggacatccgg 540

gagagacaga cacaggcaga gggcagaaag gtcaagggag gttctcaggc caaggctatt 600

ggggtttgct caattgttcc tgaatgctct tacacacgta cacacacaga gcagcacaca 660

cacacacaca cacatgcctc agcaagtccc agagagggag gtgtcgaggg ggacccgctg 720

gctgttcaga cggactccca gagccagtga gtgggtgggg ctggaacatg agttcatcta 780

tttcctgccc acatctggta taaaaggagg cagtggccca cagaggagca cagctgtgtt 840

tggctgcagg gccaagagcg ctgtcaagaa gacccacacg ccccctcca gcagctgaat 900

tcctgcagct cagcagccgc cgccagagca ggacgaaccg ccaatcgcaa ggcacctctg 960

agaacttcag gta 973

<210> 260
<211> 1094
<212> DNA
<213> Homo sapiens

<400> 260
ccatggcaaa caaaactctt ctctaagtca ccaatgatca caggcctccc actaaaaata 60

cttcccaact ctggggtgga agagtttggg ggatgaattt ttaggggatt gcaagcccca 120

atccccacct ctgtgtccct agaatccccc acccctacct tggctgctcc atcacccaac 180

caccaaagct ttcttctgca gaggccacct agtcatgttt ctcaccctgc acctcagcct 240

ccccactcca tctctcaatc atgcctaggg tttggaggaa ggcatttgat tctgttctgg 300

agcacagcag aagaattgac atcctcaaaa ttaaaactcc cttgcctgca cccctccctc 360

agatatctga ttcttaatgt ctagaaagga atctgtaaat tgttccccaa atattcctaa 420

gctccatccc ctagccacac cagaagacac ccccaaacag gcacatcttt ttaattccca 480

gcttcctctg ttttggagag gtcctcagca tgcctcttta tgcccctccc ttagctcttg 540

ccaggatatc agagggtgac tggggcacag ccaggaggac cccctcccca acacccccaa 600

cccttccacc tttggaagtc tccccaccca gctccccagt tccccagttc cacttcttct 660

agattggagg tcccaggaag agagcagagg ggcaccccta cccactggtt agcccacgcc 720

attctgagga cccagctgca cccctaccac agcacctctg gcccaggctg ggctgggggg 780

ctggggaggc agagctgcga agaggggaga tgtggggtgg actcccttcc ctcctcctcc 840

ccctctccat tccaactccc aaattggggg ccgggccagg cagctctgat tggctggggc 900

acgggcggcc ggctcccccc ctccgagggg cagggttcct ccctgctctc catcaggaca 960

gtataaaagg ggcccgggcc agtcgtcgga gcagacggga gtttctcctc ggggtcggag 1020

caggaggcac gcggagtgtg aggccacgca tgagcggacg ctaacccccc ccccagccac 1080

aaagagtcta catg 1094

<210> 261
<211> 955
<212> DNA
<213> Homo sapiens

<400> 261
tagagttcgc aaagcctatc ctccctgtag ccgggtgcca agcagcctcg agcctgctcc 60

ccagcccacc tgccaacaaa aggcgccctc cgactgcaac ccagccctcc acagacagga 120

cccgcccttt cccgaagtca taagacaaag agagtgcatc actgctgaaa cagtgggcgc 180

acacgagccc caaagctaga gaaaagctgg acggggctgg gggcggggtg caggggtgga 240

ggggcgggga ggcgggctcc ggctgcgcca cgctatcgag tcttccctcc ctccttctct 300

gccccctccg ctcccgctgg agccctccac cctacaagtg gcctacaggg cacaggtgag 360

gcgggactgg acagctcctg ctttgatcgc cggagatctg caaattctgc ccatgtcggg 420

gctgcagagc actccgacgt gtcccatagt gtttccaaac ttggaaaggg cgggggaggg 480

cgggaggatg cggagggcgg aggtatgcag acaacgagtc agagtttccc cttgaaagcc 540

tcaaaagtgt ccacgtcctc aaaaagaatg gaaccaattt aagaagccag ccccgtggcc 600

acgtcccttc ccccattcgc tccctcctct gcgcccccgc aggctcctcc cagctgtggc 660

tgcccgggcc cccagcccca gccctcccat tggtggaggc ccttttggag gcaccctagg 720

gccagggaaa cttttgccgt ataaataggg cagatccggg ctttattatt ttagcaccac 780

ggcagcagga ggtttcggct aagttggagg tactggccac gactgcatgc ccgcgcccgc 840

caggtgatac ctccgccggt gacccagggg ctctgcgaca caaggagtct gcatgtctaa 900

gtgctagaca tgctcagctt tgtggatacg cggactttgt tgctgcttgc agtaa 955

<210> 262
<211> 1043
<212> DNA
<213> Homo sapiens

<400> 262
agtaaaagac cccaaaggct gagggcctca gaagcatcag gccatgatgt tcctgaaaca 60

agagggtcag ggtcccaatg ggcctctggg gttcatcgtg aggatggatg cattaatatt 120

ggggacctgc tagggacctt cccagtggga cagtggctgg gtcagggcac tcaagcccta 180

aaacgtgatg aggcgagact tttctctctt tcctcattca gtaactgtca gtagattctg 240

ggagccaggg attctccgac tcttcaagtc catgaatttt aggggatgac agtgggctct 300

ccgctttctc ctccatgaag taacttacat gcccctcacc ctctgtggga ggggtgttgc 360

agggggtgca gaactcccct cgccgggtag ttcaagcaat ggggaccata tcaattccat 420

ctatagggaa actgaggcct ggagtagggc gaggcctctg ggaacccagc cctattctgt 480

ctctttccct ggcatttccc atccacacat agagcttcag attctctttc tttccccaga 540

gaccctcaaa tatcctctca ctcacagaat ggtgtctctg cctgcctcgg gttggccctg 600

tgatttattt tagttctttt cccttgtttt ttttttttca aactctatac acttttgttt 660

taaaaactgt ggtttctcat gagccctatt atctcattga tacctctcac ctctgtggtg 720

aggggaagaa atcatatttt cagatgactc gtaaagggca aagaaaaaaa cccaaaattt 780

caaaatttcc gtttaagtct cataatcaag aaaaggagaa acacagagag agagaaaaaa 840

aaaactatga gaacccccccc ccaccccgtg attatcagcg cacacactca tcgaaaaaaa 900

tttggattat tagaagagag aggtctgcgg cttccacacc gtacagcgtg gtttttcttc 960

tcggtataaa agcaaagttg tttttgatac gtgacagttt cccacaagcc aggctgatcc 1020

ttttctgtca gtccacttca cca 1043

<210> 263
<211> 108
<212> DNA
<213> Unknown

<220>
<223> Description of Unknown:
CAGA12 polynucleotide

<400> 263
agccagacaa gccagacaag ccagacaagc cagacaagcc agacaagcca gacaagccag 60

acaagccaga caagccagac aagccagaca agccagacaa gccagaca 108

<210> 264
<211> 46
<212> DNA
<213> Human adenovirus

<400> 264
gggctataaa agggggtggg ggcgcgttcg tcctcactct cttccg 46

<210> 265
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
peptide

<400> 265
Asp Tyr Lys Asp Asp Asp Asp Lys
1 5

<210> 266
<211> 8
<212> PRT
<213> Unknown

<220>
<223> Description of Unknown:
3C protease cleavage site peptide

<400> 266
Leu Glu Val Leu Phe Gln Gly Pro
1 5

<210> 267
<211> 387
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 267
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
50 55 60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65 70 75 80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
85 90 95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
100 105 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
130 135 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145 150 155 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
165 170 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
180 185 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
195 200 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser

210 215 220

Glu Glu Leu Glu Ala Arg Phe Tyr Thr Ser Gly Asp Gln Lys Thr Ile
225 230 235 240

Lys Ser Thr Arg Lys Lys Asn Ser Gly Lys Thr Pro His Leu Leu Leu
245 250 255

Met Leu Leu Pro Ser Tyr Arg Leu Glu Ser Gln Gln Thr Asn Arg Arg
260 265 270

Lys Lys Arg Ala Leu Asp Ala Ala Tyr Cys Phe Arg Asn Val Gln Asp
275 280 285

Asn Cys Cys Leu Arg Pro Leu Tyr Ile Asp Phe Lys Arg Asp Leu Gly
290 295 300

Trp Lys Trp Ile His Glu Pro Lys Gly Tyr Asn Ala Asn Phe Cys Ala
305 310 315 320

Gly Ala Cys Pro Tyr Leu Trp Ser Ser Asp Thr Gln His Ser Arg Val
325 330 335

Leu Ser Leu Tyr Asn Thr Ile Asn Pro Glu Ala Ser Ala Ser Pro Cys
340 345 350

Cys Val Ser Gln Asp Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Ile Gly
355 360 365

Lys Thr Pro Lys Ile Glu Gln Leu Ser Asn Met Ile Val Lys Ser Cys
370 375 380

Lys Cys Ser
385

<210> 268
<211> 387
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 268
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

```
Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
    50                  55                  60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65                  70                  75                  80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
                85                  90                  95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
            100                 105                 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
    130                 135                 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145                 150                 155                 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
                165                 170                 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
            180                 185                 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Ile
225                 230                 235                 240

Lys Ser Thr Arg Lys Lys Asn Ser Gly Lys Thr Pro His Leu Leu Leu
                245                 250                 255

Met Leu Leu Pro Ser Tyr Arg Leu Glu Ser Gln Gln Thr Asn Arg Arg
            260                 265                 270

Lys Lys Arg Ala Leu Asp Ala Ala Tyr Cys Phe Arg Asn Val Gln Asp
        275                 280                 285

Asn Cys Cys Leu Arg Pro Leu Tyr Ile Asp Phe Lys Arg Asp Leu Gly
    290                 295                 300

Trp Lys Trp Ile His Glu Pro Lys Gly Tyr Asn Ala Asn Phe Cys Ala
305                 310                 315                 320
```

Gly Ala Cys Pro Tyr Leu Trp Ser Ser Asp Thr Gln His Ser Arg Val
325 330 335

Leu Ser Leu Tyr Asn Thr Ile Asn Pro Glu Ala Ser Ala Ser Pro Cys
340 345 350

Cys Val Ser Gln Asp Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Ile Gly
355 360 365

Lys Thr Pro Lys Ile Glu Gln Leu Ser Asn Met Ile Val Lys Ser Cys
370 375 380

Lys Cys Ser
385

<210> 269
<211> 387
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 269
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
50 55 60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65 70 75 80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
85 90 95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
100 105 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
130 135 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser

145 150 155 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
165 170 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
180 185 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
195 200 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
210 215 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225 230 235 240

Thr Ser Gly Asp Gln Lys Thr Ser Gly Lys Thr Pro His Leu Leu Leu
245 250 255

Met Leu Leu Pro Ser Tyr Arg Leu Glu Ser Gln Gln Thr Asn Arg Arg
260 265 270

Lys Lys Arg Ala Leu Asp Ala Ala Tyr Cys Phe Arg Asn Val Gln Asp
275 280 285

Asn Cys Cys Leu Arg Pro Leu Tyr Ile Asp Phe Lys Arg Asp Leu Gly
290 295 300

Trp Lys Trp Ile His Glu Pro Lys Gly Tyr Asn Ala Asn Phe Cys Ala
305 310 315 320

Gly Ala Cys Pro Tyr Leu Trp Ser Ser Asp Thr Gln His Ser Arg Val
325 330 335

Leu Ser Leu Tyr Asn Thr Ile Asn Pro Glu Ala Ser Ala Ser Pro Cys
340 345 350

Cys Val Ser Gln Asp Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Ile Gly
355 360 365

Lys Thr Pro Lys Ile Glu Gln Leu Ser Asn Met Ile Val Lys Ser Cys
370 375 380

Lys Cys Ser
385

<210> 270
<211> 391
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 270

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Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1               5                  10                  15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
        35                  40                  45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
    50                  55                  60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65                  70                  75                  80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
                85                  90                  95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
            100                 105                 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
    130                 135                 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145                 150                 155                 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
                165                 170                 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
            180                 185                 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Gly Thr Ser Thr Tyr
225                 230                 235                 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Pro
                245                 250                 255
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His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu Glu Ser Gln Gln
            260                 265                 270

Thr Asn Arg Arg Lys Lys Arg Ala Leu Asp Ala Ala Tyr Cys Phe Arg
        275                 280                 285

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

Arg Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr Asn Ala
305                 310                 315                 320

Asn Phe Cys Ala Gly Ala Cys Pro Tyr Leu Trp Ser Ser Asp Thr Gln
                325                 330                 335

His Ser Arg Val Leu Ser Leu Tyr Asn Thr Ile Asn Pro Glu Ala Ser
            340                 345                 350

Ala Ser Pro Cys Cys Val Ser Gln Asp Leu Glu Pro Leu Thr Ile Leu
        355                 360                 365

Tyr Tyr Ile Gly Lys Thr Pro Lys Ile Glu Gln Leu Ser Asn Met Ile
    370                 375                 380

Val Lys Ser Cys Lys Cys Ser
385                 390
```

<210> 271
<211> 391
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 271

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Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1               5                   10                  15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
        35                  40                  45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
    50                  55                  60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65                  70                  75                  80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
```

85 90 95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
100 105 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
130 135 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145 150 155 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
165 170 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
180 185 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
195 200 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
210 215 220

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

Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser Gly Lys Thr Pro
245 250 255

His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu Glu Ser Gln Gln
260 265 270

Thr Asn Arg Arg Lys Lys Arg Ala Leu Asp Ala Ala Tyr Cys Phe Arg
275 280 285

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

Arg Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr Asn Ala
305 310 315 320

Asn Phe Cys Ala Gly Ala Cys Pro Tyr Leu Trp Ser Ser Asp Thr Gln
325 330 335

His Ser Arg Val Leu Ser Leu Tyr Asn Thr Ile Asn Pro Glu Ala Ser
340 345 350

Ala Ser Pro Cys Cys Val Ser Gln Asp Leu Glu Pro Leu Thr Ile Leu

355 360 365

Tyr Tyr Ile Gly Lys Thr Pro Lys Ile Glu Gln Leu Ser Asn Met Ile
370 375 380

Val Lys Ser Cys Lys Cys Ser
385 390

<210> 272
<211> 395
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 272
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
50 55 60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65 70 75 80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
85 90 95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
100 105 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
130 135 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145 150 155 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
165 170 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
180 185 190

```
His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Phe Thr Gly Thr Ser Thr Tyr
225                 230                 235                 240

Thr Ser Gly Asp Gln Lys Thr Ile Lys Ser Thr Arg Lys Lys Asn Ser
                245                 250                 255

Gly Lys Thr Pro His Leu Leu Leu Met Leu Leu Pro Ser Tyr Arg Leu
            260                 265                 270

Glu Ser Gln Gln Thr Asn Arg Arg Lys Lys Arg Ala Leu Asp Ala Ala
        275                 280                 285

Tyr Cys Phe Arg Asn Val Gln Asp Asn Cys Cys Leu Arg Pro Leu Tyr
    290                 295                 300

Ile Asp Phe Lys Arg Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys
305                 310                 315                 320

Gly Tyr Asn Ala Asn Phe Cys Ala Gly Ala Cys Pro Tyr Leu Trp Ser
                325                 330                 335

Ser Asp Thr Gln His Ser Arg Val Leu Ser Leu Tyr Asn Thr Ile Asn
            340                 345                 350

Pro Glu Ala Ser Ala Ser Pro Cys Cys Val Ser Gln Asp Leu Glu Pro
        355                 360                 365

Leu Thr Ile Leu Tyr Tyr Ile Gly Lys Thr Pro Lys Ile Glu Gln Leu
    370                 375                 380

Ser Asn Met Ile Val Lys Ser Cys Lys Cys Ser
385                 390                 395


<210> 273
<211> 386
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 273
Ser Leu Ser Thr Cys Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1               5                   10                  15

Arg Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Lys Leu Thr
```

```
            20                  25                  30

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
        35                  40                  45

Ile Ser Ile Tyr Asn Ser Thr Arg Asp Leu Leu Gln Glu Lys Ala Ser
    50                  55                  60

Arg Arg Ala Ala Ala Cys Glu Arg Glu Arg Ser Asp Glu Glu Tyr Tyr
65                  70                  75                  80

Ala Lys Glu Val Tyr Lys Ile Asp Met Pro Pro Phe Phe Pro Ser Glu
                85                  90                  95

Asn Ala Ile Pro Pro Thr Phe Tyr Arg Pro Tyr Phe Arg Ile Val Arg
            100                 105                 110

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

Glu Phe Arg Val Phe Arg Leu Gln Asn Pro Lys Ala Arg Val Pro Glu
    130                 135                 140

Gln Arg Ile Glu Leu Tyr Gln Ile Leu Lys Ser Lys Asp Leu Thr Ser
145                 150                 155                 160

Pro Thr Gln Arg Tyr Ile Asp Ser Lys Val Val Lys Thr Arg Ala Glu
                165                 170                 175

Gly Glu Trp Leu Ser Phe Asp Val Thr Asp Ala Val His Glu Trp Leu
            180                 185                 190

His His Lys Asp Arg Asn Leu Gly Phe Lys Ile Ser Leu His Cys Pro
        195                 200                 205

Cys Cys Thr Phe Val Pro Ser Asn Asn Tyr Ile Ile Pro Asn Lys Ser
    210                 215                 220

Glu Glu Leu Glu Ala Arg Phe Ala Gly Ile Asp Thr Gly Arg Arg Gly
225                 230                 235                 240

Asp Leu Ala Thr Ile Asn Ser Gly Lys Thr Pro His Leu Leu Leu Met
                245                 250                 255

Leu Leu Pro Ser Tyr Arg Leu Glu Ser Gln Gln Thr Asn Arg Arg Lys
            260                 265                 270

Lys Arg Ala Leu Asp Ala Ala Tyr Cys Phe Arg Asn Val Gln Asp Asn
        275                 280                 285

Cys Cys Leu Arg Pro Leu Tyr Ile Asp Phe Lys Arg Asp Leu Gly Trp
```

290 295 300

Lys Trp Ile His Glu Pro Lys Gly Tyr Asn Ala Asn Phe Cys Ala Gly
305 310 315 320

Ala Cys Pro Tyr Leu Trp Ser Ser Asp Thr Gln His Ser Arg Val Leu
325 330 335

Ser Leu Tyr Asn Thr Ile Asn Pro Glu Ala Ser Ala Ser Pro Cys Cys
340 345 350

Val Ser Gln Asp Leu Glu Pro Leu Thr Ile Leu Tyr Tyr Ile Gly Lys
355 360 365

Thr Pro Lys Ile Glu Gln Leu Ser Asn Met Ile Val Lys Ser Cys Lys
370 375 380

Cys Ser
385

<210> 274
<211> 86
<212> PRT
<213> Homo sapiens

<400> 274
Asp Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly
1 5 10 15

Lys Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly
20 25 30

Phe Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val Asp Val Asp Glu Cys
35 40 45

Leu Asp Glu Ser Asn Cys Arg Asn Gly Val Cys Glu Asn Thr Arg Gly
50 55 60

Gly Tyr Arg Cys Ala Cys Thr Pro Pro Ala Glu Tyr Ser Pro Ala Gln
65 70 75 80

Arg Gln Cys Leu Ser Pro
85

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

<400> 275
Asp Val Asp Glu Cys Gln Asp Pro Ala Ala Cys Arg Pro Gly Arg Cys
1 5 10 15

Val Asn Leu Pro Gly Ser Tyr Arg Cys Glu Cys Arg Pro Pro Trp Val

20 25 30

Pro Gly Pro Ser Gly Arg Asp Cys Gln Leu Pro
35 40

<210> 276
<211> 43
<212> PRT
<213> Homo sapiens

<400> 276
Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His Gly
1 5 10 15

Ala Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly
20 25 30

Phe Thr Pro Thr Gln Asp Gln His Gly Cys Glu
35 40

<210> 277
<211> 43
<212> PRT
<213> Homo sapiens

<400> 277
Asp Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly
1 5 10 15

Lys Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly
20 25 30

Phe Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val
35 40

<210> 278
<211> 57
<212> PRT
<213> Homo sapiens

<400> 278
Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys Asp Ser
1 5 10 15

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

Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val Tyr Ser
35 40 45

Ser Ala Glu Phe His Ser Leu Cys Pro
50 55

<210> 279
<211> 52
<212> PRT

<213> Homo sapiens

<400> 279
Asp Val Cys Trp Ser Gln Arg Gly Glu Asp Gly Met Cys Ala Gly Pro
1 5 10 15

Leu Ala Gly Pro Ala Leu Thr Phe Asp Asp Cys Cys Cys Arg Gln Gly
20 25 30

Arg Gly Trp Gly Ala Gln Cys Arg Pro Cys Pro Pro Arg Gly Ala Gly
35 40 45

Ser His Cys Pro
50

<210> 280
<211> 277
<212> PRT
<213> Homo sapiens

<400> 280
Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys Asp Ser
1 5 10 15

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

Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val Tyr Ser
35 40 45

Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr Thr Gln
50 55 60

Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp Ile Asp
65 70 75 80

Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys Cys Val
85 90 95

Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe Tyr Tyr
100 105 110

Asp Gly Asn Leu Leu Glu Cys Val Asp Val Asp Glu Cys Leu Asp Glu
115 120 125

Ser Asn Cys Arg Asn Gly Val Cys Glu Asn Thr Arg Gly Gly Tyr Arg
130 135 140

Cys Ala Cys Thr Pro Pro Ala Glu Tyr Ser Pro Ala Gln Arg Gln Cys
145 150 155 160

Leu Ser Pro Glu Glu Met Asp Val Asp Glu Cys Gln Asp Pro Ala Ala
165 170 175

```
Cys Arg Pro Gly Arg Cys Val Asn Leu Pro Gly Ser Tyr Arg Cys Glu
            180                 185                 190

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

Pro Glu Ser Pro Ala Glu Arg Ala Pro Glu Arg Arg Asp Val Cys Trp
    210                 215                 220

Ser Gln Arg Gly Glu Asp Gly Met Cys Ala Gly Pro Leu Ala Gly Pro
225                 230                 235                 240

Ala Leu Thr Phe Asp Asp Cys Cys Cys Arg Gln Gly Arg Gly Trp Gly
                245                 250                 255

Ala Gln Cys Arg Pro Cys Pro Pro Arg Gly Ala Gly Ser His Cys Pro
            260                 265                 270

Thr Ser Gln Ser Glu
        275


<210> 281
<211> 230
<212> PRT
<213> Homo sapiens

<400> 281
Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys Asp Ser
1               5                   10                  15

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

Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val Tyr Ser
        35                  40                  45

Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr Thr Gln
    50                  55                  60

Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp Ile Asp
65                  70                  75                  80

Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys Cys Val
                85                  90                  95

Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe Tyr Tyr
            100                 105                 110

Asp Gly Asn Leu Leu Glu Cys Val Asp Val Asp Glu Cys Leu Asp Glu
        115                 120                 125

Ser Asn Cys Arg Asn Gly Val Cys Glu Asn Thr Arg Gly Gly Tyr Arg
```

130 135 140

Cys Ala Cys Thr Pro Pro Ala Glu Tyr Ser Pro Ala Gln Arg Gln Cys
145 150 155 160

Leu Ser Pro Glu Glu Met Glu Arg Ala Pro Glu Arg Arg Asp Val Cys
165 170 175

Trp Ser Gln Arg Gly Glu Asp Gly Met Cys Ala Gly Pro Leu Ala Gly
180 185 190

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

Gly Ala Gln Cys Arg Pro Cys Pro Pro Arg Gly Ala Gly Ser His Cys
210 215 220

Pro Thr Ser Gln Ser Glu
225 230

<210> 282
<211> 174
<212> PRT
<213> Homo sapiens

<400> 282
Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His Gly
1 5 10 15

Ala Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly
20 25 30

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

His His Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys
50 55 60

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

Leu Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val
85 90 95

Tyr Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr
100 105 110

Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp
115 120 125

Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys
130 135 140

Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe
145 150 155 160

Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val Asp Val Asp Glu
165 170

<210> 283
<211> 175
<212> PRT
<213> Homo sapiens

<400> 283
Gln Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His
1 5 10 15

Gly Ala Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu
20 25 30

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

Pro His His Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe
50 55 60

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

Ser Leu Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro
85 90 95

Val Tyr Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly
100 105 110

Tyr Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg
115 120 125

Asp Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly
130 135 140

Lys Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly
145 150 155 160

Phe Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val Asp Val Asp Glu
165 170 175

<210> 284
<211> 170
<212> PRT
<213> Homo sapiens

<400> 284
Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His Gly
1 5 10 15

```
Ala Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly
            20                  25                  30

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

His His Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys
    50                  55                  60

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

Leu Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val
                85                  90                  95

Tyr Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr
            100                 105                 110

Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp
        115                 120                 125

Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys
    130                 135                 140

Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe
145                 150                 155                 160

Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val
                165                 170
```

<210> 285
<211> 171
<212> PRT
<213> Homo sapiens

<400> 285

```
Gln Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His
1               5                   10                  15

Gly Ala Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu
            20                  25                  30

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

Pro His His Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe
    50                  55                  60

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

Ser Leu Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro
```

85 90 95

Val Tyr Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly
100 105 110

Tyr Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg
115 120 125

Asp Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly
130 135 140

Lys Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly
145 150 155 160

Phe Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val
165 170

<210> 286
<211> 305
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 286
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

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

Thr Val Phe Cys Asp Ser Val Leu Ala Thr Asn Val Thr Gln Gln Glu
35 40 45

Cys Cys Cys Ser Leu Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr
50 55 60

Pro Cys Pro Val Tyr Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp
65 70 75 80

Gly Lys Gly Tyr Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro
85 90 95

Ala His Arg Asp Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys
100 105 110

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

Lys Gln Gly Phe Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val Asp Val
130 135 140

```
Asp Glu Cys Leu Asp Glu Ser Asn Cys Arg Asn Gly Val Cys Glu Asn
145                 150                 155                 160


Thr Arg Gly Gly Tyr Arg Cys Ala Cys Thr Pro Pro Ala Glu Tyr Ser
                165                 170                 175


Pro Ala Gln Arg Gln Cys Leu Ser Pro Glu Glu Met Asp Val Asp Glu
            180                 185                 190


Cys Gln Asp Pro Ala Ala Cys Arg Pro Gly Arg Cys Val Asn Leu Pro
        195                 200                 205


Gly Ser Tyr Arg Cys Glu Cys Arg Pro Pro Trp Val Pro Gly Pro Ser
    210                 215                 220


Gly Arg Asp Cys Gln Leu Pro Glu Ser Pro Ala Glu Arg Ala Pro Glu
225                 230                 235                 240


Arg Arg Asp Val Cys Trp Ser Gln Arg Gly Glu Asp Gly Met Cys Ala
                245                 250                 255


Gly Pro Leu Ala Gly Pro Ala Leu Thr Phe Asp Asp Cys Cys Cys Arg
            260                 265                 270


Gln Gly Arg Gly Trp Gly Ala Gln Cys Arg Pro Cys Pro Pro Arg Gly
        275                 280                 285


Ala Gly Ser His Cys Pro Thr Ser Gln Ser Glu His His His His His
    290                 295                 300


His
305


<210> 287
<211> 258
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 287
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1               5                   10                  15


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


Thr Val Phe Cys Asp Ser Val Leu Ala Thr Asn Val Thr Gln Gln Glu
        35                  40                  45


Cys Cys Cys Ser Leu Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr
```

50 55 60

Pro Cys Pro Val Tyr Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp
65 70 75 80

Gly Lys Gly Tyr Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro
85 90 95

Ala His Arg Asp Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys
100 105 110

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

Lys Gln Gly Phe Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val Asp Val
130 135 140

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

Thr Arg Gly Gly Tyr Arg Cys Ala Cys Thr Pro Pro Ala Glu Tyr Ser
165 170 175

Pro Ala Gln Arg Gln Cys Leu Ser Pro Glu Glu Met Glu Arg Ala Pro
180 185 190

Glu Arg Arg Asp Val Cys Trp Ser Gln Arg Gly Glu Asp Gly Met Cys
195 200 205

Ala Gly Pro Leu Ala Gly Pro Ala Leu Thr Phe Asp Asp Cys Cys Cys
210 215 220

Arg Gln Gly Arg Gly Trp Gly Ala Gln Cys Arg Pro Cys Pro Pro Arg
225 230 235 240

Gly Ala Gly Ser His Cys Pro Thr Ser Gln Ser Glu His His His His
245 250 255

His His

<210> 288
<211> 202
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 288
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

```
Phe Ser Gly Val Leu Gly Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser
            20                  25                  30

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

Cys Val Cys Asp Glu Gly Phe Thr Pro Thr Gln Asp Gln His Gly Cys
    50                  55                  60

Glu Glu Val Glu Gln Pro His His Lys Lys Glu Cys Tyr Leu Asn Phe
65                  70                  75                  80

Asp Asp Thr Val Phe Cys Asp Ser Val Leu Ala Thr Asn Val Thr Gln
                85                  90                  95

Gln Glu Cys Cys Cys Ser Leu Gly Ala Gly Trp Gly Asp His Cys Glu
            100                 105                 110

Ile Tyr Pro Cys Pro Val Tyr Ser Ser Ala Glu Phe His Ser Leu Cys
        115                 120                 125

Pro Asp Gly Lys Gly Tyr Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly
    130                 135                 140

Ile Pro Ala His Arg Asp Ile Asp Glu Cys Met Leu Phe Gly Ser Glu
145                 150                 155                 160

Ile Cys Lys Glu Gly Lys Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys
                165                 170                 175

Tyr Cys Lys Gln Gly Phe Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val
            180                 185                 190

Asp Val Asp Glu His His His His His His
        195                 200


<210> 289
<211> 205
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 289
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1               5                   10                  15

Phe Ser Gly Val Leu Gly His His His His His His Ser Ser Gly Asp
            20                  25                  30

Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His Gly Ala
```

35 40 45

Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly Phe
50 55 60

Thr Pro Thr Gln Asp Gln His Gly Cys Glu Glu Val Glu Gln Pro His
65 70 75 80

His Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys Asp
85 90 95

Ser Val Leu Ala Thr Asn Val Thr Gln Gln Glu Cys Cys Cys Ser Leu
100 105 110

Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val Tyr
115 120 125

Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr Thr
130 135 140

Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp Ile
145 150 155 160

Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys Cys
165 170 175

Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe Tyr
180 185 190

Tyr Asp Gly Asn Leu Leu Glu Cys Val Asp Val Asp Glu
195 200 205

<210> 290
<211> 206
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 290
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Phe Ser Gly Val Leu Gly His His His His His His Ser Ser Gly Gln
20 25 30

Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His Gly
35 40 45

Ala Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly
50 55 60

```
Phe Thr Pro Thr Gln Asp Gln His Gly Cys Glu Glu Val Glu Gln Pro
65                  70                  75                  80

His His Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys
                85                  90                  95

Asp Ser Val Leu Ala Thr Asn Val Thr Gln Gln Glu Cys Cys Cys Ser
            100                 105                 110

Leu Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val
        115                 120                 125

Tyr Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr
    130                 135                 140

Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp
145                 150                 155                 160

Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys
                165                 170                 175

Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe
            180                 185                 190

Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val Asp Val Asp Glu
        195                 200                 205


<210> 291
<211> 201
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      polypeptide

<400> 291
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1               5                   10                  15

Phe Ser Gly Val Leu Gly His His His His His His Ser Ser Gly Asp
            20                  25                  30

Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His Gly Ala
        35                  40                  45

Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly Phe
    50                  55                  60

Thr Pro Thr Gln Asp Gln His Gly Cys Glu Glu Val Glu Gln Pro His
65                  70                  75                  80

His Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys Asp
```

85 90 95

Ser Val Leu Ala Thr Asn Val Thr Gln Gln Glu Cys Cys Cys Ser Leu
100 105 110

Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val Tyr
115 120 125

Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr Thr
130 135 140

Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp Ile
145 150 155 160

Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys Cys
165 170 175

Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe Tyr
180 185 190

Tyr Asp Gly Asn Leu Leu Glu Cys Val
195 200

<210> 292
<211> 202
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 292
Met Asp Met Arg Val Pro Ala Gln Leu Leu Gly Leu Leu Leu Leu Trp
1 5 10 15

Phe Ser Gly Val Leu Gly His His His His His His Ser Ser Gly Gln
20 25 30

Asp Ile Asp Glu Cys Ser Gln Asp Pro Ser Leu Cys Leu Pro His Gly
35 40 45

Ala Cys Lys Asn Leu Gln Gly Ser Tyr Val Cys Val Cys Asp Glu Gly
50 55 60

Phe Thr Pro Thr Gln Asp Gln His Gly Cys Glu Glu Val Glu Gln Pro
65 70 75 80

His His Lys Lys Glu Cys Tyr Leu Asn Phe Asp Asp Thr Val Phe Cys
85 90 95

Asp Ser Val Leu Ala Thr Asn Val Thr Gln Gln Glu Cys Cys Cys Ser
100 105 110

Leu Gly Ala Gly Trp Gly Asp His Cys Glu Ile Tyr Pro Cys Pro Val
115 120 125

Tyr Ser Ser Ala Glu Phe His Ser Leu Cys Pro Asp Gly Lys Gly Tyr
130 135 140

Thr Gln Asp Asn Asn Ile Val Asn Tyr Gly Ile Pro Ala His Arg Asp
145 150 155 160

Ile Asp Glu Cys Met Leu Phe Gly Ser Glu Ile Cys Lys Glu Gly Lys
165 170 175

Cys Val Asn Thr Gln Pro Gly Tyr Glu Cys Tyr Cys Lys Gln Gly Phe
180 185 190

Tyr Tyr Asp Gly Asn Leu Leu Glu Cys Val
195 200

<210> 293
<211> 249
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 293
Ser Leu Ser Thr Ser Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Ala
50 55 60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65 70 75 80

Arg Val Leu Met Val Glu Thr His Asn Glu Ile Tyr Asp Lys Phe Lys
85 90 95

Gln Ser Thr His Ser Ile Tyr Met Phe Phe Asn Thr Ser Glu Leu Arg
100 105 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
115 120 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys

130 135 140

Tyr Ser Asn Asn Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145 150 155 160

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

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

His Cys Ser Cys Asp Ser Arg Asp Asn Thr Leu Gln Val Asp Ile Asn
195 200 205

Gly Phe Thr Thr Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
210 215 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225 230 235 240

His Leu Gln Ser Ser Arg His Arg Arg
245

<210> 294
<211> 279
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 294
Ser Leu Ser Thr Ser Ser Thr Leu Asp Met Asp Gln Phe Met Arg Lys
1 5 10 15

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

Ser Pro Pro Glu Asp Tyr Pro Glu Pro Glu Glu Val Pro Pro Glu Val
35 40 45

Leu Ala Leu Tyr Asn Ser Thr Arg Glu Leu Leu Glu Glu Met His Gly
50 55 60

Glu Arg Glu Glu Gly Cys Thr Gln Glu Asn Thr Glu Ser Glu Tyr Tyr
65 70 75 80

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

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

```
Phe Asn Val Ser Ser Val Glu Lys Asn Arg Thr Asn Leu Phe Arg Ala
        115                 120                 125


Glu Phe Arg Val Leu Arg Val Pro Asn Pro Ser Ser Lys Arg Asn Glu
    130                 135                 140


Gln Arg Ile Glu Leu Phe Gln Ile Leu Arg Pro Asp Glu His Ile Ala
145                 150                 155                 160


Lys Gln Arg Tyr Ile Gly Gly Lys Asn Leu Pro Thr Arg Gly Thr Ala
                165                 170                 175


Glu Trp Leu Ser Phe Asp Val Thr Asp Thr Val Arg Glu Trp Leu Leu
            180                 185                 190


Arg Arg Glu Ser Asn Leu Gly Leu Glu Ile Ser Ile His Cys Pro Cys
        195                 200                 205


His Thr Phe Gln Pro Asn Gly Asp Ile Leu Glu Asn Ile His Glu Val
    210                 215                 220


Met Glu Ile Lys Phe Lys Gly Val Asp Asn Glu Asp Asp His Gly Arg
225                 230                 235                 240


Gly Asp Leu Gly Arg Leu Lys Lys Gln Lys Asp His His Asn Pro His
                245                 250                 255


Leu Ile Leu Met Met Ile Pro Pro His Arg Leu Asp Asn Pro Gly Gln
            260                 265                 270


Gly Gly Gln Arg Lys Lys Arg
        275


<210> 295
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic
      6xHis tag

<400> 295
His His His His His His
1               5


<210> 296
<211> 361
<212> PRT
<213> Sus scrofa

<400> 296
Leu Ser Thr Cys Lys Thr Ile Asp Met Glu Leu Val Lys Arg Lys Arg
1               5                   10                  15
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Ile Glu Ala Ile Arg Gly Gln Ile Leu Ser Lys Leu Arg Leu Ala Ser
            20                  25                  30

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

Leu Ala Leu Tyr Asn Ser Thr Arg Asp Arg Val Ala Gly Glu Ser Val
    50                  55                  60

Glu Pro Glu Pro Glu Pro Glu Ala Asp Tyr Tyr Ala Lys Glu Val Thr
65                  70                  75                  80

Arg Val Leu Met Val Glu Ser Gly Asn Gln Ile Tyr Asp Lys Phe Lys
                85                  90                  95

Gly Thr Pro His Ser Leu Tyr Met Leu Phe Asn Thr Ser Glu Leu Arg
            100                 105                 110

Glu Ala Val Pro Glu Pro Val Leu Leu Ser Arg Ala Glu Leu Arg Leu
        115                 120                 125

Leu Arg Leu Lys Leu Lys Val Glu Gln His Val Glu Leu Tyr Gln Lys
    130                 135                 140

Tyr Ser Asn Asp Ser Trp Arg Tyr Leu Ser Asn Arg Leu Leu Ala Pro
145                 150                 155                 160

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

Gln Trp Leu Thr Arg Arg Glu Ala Ile Glu Gly Phe Arg Leu Ser Ala
            180                 185                 190

His Cys Ser Cys Asp Ser Lys Asp Asn Thr Leu His Val Glu Ile Asn
        195                 200                 205

Gly Phe Asn Ser Gly Arg Arg Gly Asp Leu Ala Thr Ile His Gly Met
    210                 215                 220

Asn Arg Pro Phe Leu Leu Leu Met Ala Thr Pro Leu Glu Arg Ala Gln
225                 230                 235                 240

His Leu His Ser Ser Arg His Arg Arg Ala Leu Asp Thr Asn Tyr Cys
                245                 250                 255

Phe Ser Ser Thr Glu Lys Asn Cys Cys Val Arg Gln Leu Tyr Ile Asp
            260                 265                 270

Phe Arg Lys Asp Leu Gly Trp Lys Trp Ile His Glu Pro Lys Gly Tyr
        275                 280                 285
```

```
His Ala Asn Phe Cys Leu Gly Pro Cys Pro Tyr Ile Trp Ser Leu Asp
    290                 295                 300

Thr Gln Tyr Ser Lys Val Leu Ala Leu Tyr Asn Gln His Asn Pro Gly
305                 310                 315                 320

Ala Ser Ala Ala Pro Cys Cys Val Pro Gln Ala Leu Glu Pro Leu Pro
                325                 330                 335

Ile Val Tyr Tyr Val Gly Arg Lys Pro Lys Val Glu Gln Leu Ser Asn
            340                 345                 350

Met Ile Val Arg Ser Cys Lys Cys Ser
        355                 360
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<210> 297
<211> 375
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 297

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Met Gln Lys Leu Gln Leu Cys Val Tyr Ile Tyr Leu Phe Met Leu Ile
1               5                   10                  15

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

Val Glu Lys Glu Gly Leu Cys Asn Ala Cys Thr Trp Arg Gln Asn Thr
        35                  40                  45

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

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

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

Gln Arg Asp Asp Ser Ser Asp Gly Ser Leu Glu Asp Asp Asp Tyr His
            100                 105                 110

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

Met Gln Val Asp Gly Lys Pro Lys Cys Cys Phe Phe Lys Phe Ser Ser
    130                 135                 140

Lys Ile Gln Tyr Asn Lys Val Val Lys Ala Gln Leu Trp Ile Tyr Leu
```

```
145                 150                 155                 160

Arg Pro Val Glu Thr Pro Thr Thr Val Phe Val Gln Ile Leu Arg Leu
                165                 170                 175

Ile Lys Pro Met Lys Asp Gly Thr Arg Tyr Thr Gly Ile Arg Ser Leu
            180                 185                 190

Lys Leu Asp Met Asn Pro Gly Thr Gly Ile Trp Gln Ser Ile Asp Val
        195                 200                 205

Lys Thr Val Leu Gln Asn Trp Leu Lys Gln Pro Glu Ser Asn Leu Gly
    210                 215                 220

Ile Glu Ile Lys Ala Leu Asp Glu Asn Gly His Asp Leu Ala Val Thr
225                 230                 235                 240

Phe Pro Gly Pro Gly Glu Asp Gly Leu Asn Pro Phe Leu Glu Val Lys
                245                 250                 255

Val Thr Asp Thr Pro Lys Arg Ser Arg Arg Asp Phe Gly Leu Asp Cys
            260                 265                 270

Asp Glu His Ser Thr Glu Ser Arg Cys Cys Arg Tyr Pro Leu Thr Val
        275                 280                 285

Asp Phe Glu Ala Phe Gly Trp Asp Trp Ile Ile Ala Pro Lys Arg Tyr
    290                 295                 300

Lys Ala Asn Tyr Cys Ser Gly Glu Cys Glu Phe Val Phe Leu Gln Lys
305                 310                 315                 320

Tyr Pro His Thr His Leu Val His Gln Ala Asn Pro Arg Gly Ser Ala
                325                 330                 335

Gly Pro Cys Cys Thr Pro Thr Lys Met Ser Pro Ile Asn Met Leu Tyr
            340                 345                 350

Phe Asn Gly Lys Glu Gln Ile Ile Tyr Gly Lys Ile Pro Ala Met Val
        355                 360                 365

Val Asp Arg Cys Gly Cys Ser
    370                 375
```