SEQUENCE LISTING

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<120> ASSAYS FOR DETECTING ANTIBODIES SPECIFIC TO THERAPEUTIC ANTI-IGE ANTIBODIES AND THEIR USE IN ANAPHYLAXIS

<130> 146392007900

<140> US 12/912,657
<141> 2010-10-26

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<151> 2009-10-26

<160> 31

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 216
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

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

<210> 2
<211> 451
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 2

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

<210> 3
<211> 232
<212> PRT
<213> Cynomolgus macaque

<400> 3

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

<210> 4
<211> 232
<212> PRT
<213> Macaca mulatta

<400> 4

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

<210> 5
<211> 232
<212> PRT
<213> Pan troglodytes

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

<210> 6
<211> 232
<212> PRT
<213> Homo sapiens

<400> 6
Val Pro Gln Lys Pro Lys Val Ser Leu Asn Pro Pro Trp Asn Arg Ile
 1   5   10   15
Phe Lys Gly Glu Asn Val Thr Leu Thr Cys Asn Gly Asn Asn Phe Phe
            20   25   30
Glu Val Ser Ser Thr Lys Trp Phe His Asn Gly Ser Leu Ser Glu Glu
        35   40   45
Thr Asn Ser Ser Leu Asn Ile Val Asn Ala Lys Phe Glu Asp Ser Gly
    50   55   60
Glu Tyr Lys Cys Gln His Gln Gln Val Asn Glu Ser Glu Pro Val Tyr
65   70   75   80
Leu Glu Val Phe Ser Asp Trp Leu Leu Leu Gln Ala Ser Ala Glu Val
                85   90   95
Val Met Glu Gly Gln Pro Leu Phe Leu Arg Cys His Gly Trp Arg Asn
            100   105   110
Trp Asp Val Tyr Lys Val Ile Tyr Tyr Lys Asp Gly Glu Ala Leu Lys
        115   120   125
Tyr Trp Tyr Glu Asn His Asn Ile Ser Ile Thr Asn Ala Thr Val Glu
    130   135   140
Asp Ser Gly Thr Tyr Tyr Cys Thr Gly Lys Val Trp Gln Leu Asp Tyr
145   150   155   160
Glu Ser Glu Pro Leu Asn Ile Thr Val Ile Lys Ala Pro Arg Glu Lys
                165   170   175
Tyr Trp Leu Gln Phe Phe Ile Pro Leu Leu Val Val Ile Leu Phe Ala
            180   185   190

```
                                                  5
Val Asp Thr Gly Leu Phe Ile Ser Thr Gln Gln Gln Val Thr Phe Leu
        195                 200                 205
Leu Lys Ile Lys Arg Thr Arg Lys Gly Phe Arg Leu Leu Asn Pro His
    210                 215                 220
Pro Lys Pro Asn Pro Lys Asn Asn
225                 230
```

<210> 7
<211> 122
<212> PRT
<213> Murine

<400> 7

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

<210> 8
<211> 107
<212> PRT
<213> Murine

<400> 8

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

<210> 9
<211> 366
<212> DNA
<213> Murine

<400> 9

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caagttcaac tgcagcagtc tggcgctgag ctgatgaagc ctggggcctc agtgaagata 60
tcctgcaagg ctactggcta cacattcagt agccactgga tagagtgggt gaaacagagg 120
tctggacatg gccttgagtg gattggagag attctacctg gaagtggtag tattaattac 180
aatgagaagt tcaagggcaa ggccacattc acagcagaca catcctccaa cacagcctac 240
atgcaactca gcagcctggc atctgaggac tctgccgtct attattgtgg aagagagggg 300
gccgactatg gttacgacgt tgctatggac tactggggtc aaggagcctc ggtcaccgtc 360
tcctcg                                                            366
```

<210> 10

<211> 321
<212> DNA
<213> Murine

<400> 10
caaattgtta tcacccagtc tccagcaatc atgtctgcat ctccagggga gaaggtcacc 60
ataacctgta gtgccacctc aagtgtaaat tacatgcact ggttccagca gaagccaggc 120
acttctccca aactctggat ttatggcaca tcccacctgg cttctggagt ccctgctcgc 180
ttcagtggca gtggatctgg gacctcttac tctctcacaa tcagccgaat ggaggctgaa 240
gatgctgcca cttattactg ccagcaaagg agtcgttacc cattcacgtt cggctcgggg 300
acaaagctcg agatcaaacg g 321

<210> 11
<211> 236
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 11
Met Gly Gly Ala Ala Ala Arg Leu Gly Ala Val Ile Leu Phe Val Val
 1   5   10   15
Ile Val Gly Leu His Gly Val Arg Gly Lys Tyr Ala Leu Ala Asp Ala
            20   25   30
Ser Leu Lys Met Ala Asp Pro Asn Arg Phe Arg Gly Lys Asp Leu Pro
        35   40   45
Val Leu Asp Gln Leu Leu Glu Val Pro Gln Lys Pro Thr Val Ser Leu
    50   55   60
Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr Leu Thr
65   70   75   80
Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp Phe His
                85   90   95
Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile Val Asn
            100   105   110
Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln Gln Phe
        115   120   125
Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp Leu Leu
    130   135   140
Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu Phe Leu
145   150   155   160
Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile Tyr Tyr
                165   170   175
Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn Ile Ser
            180   185   190
Ile Thr Asn Thr Thr Val Asp Ser Gly Thr Tyr Tyr Cys Thr Gly Lys
        195   200   205
Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile Thr Val Ile
    210   215   220
Lys Ala Gln His Asp Lys His His His His His His
225   230   235

<210> 12
<211> 207
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 12
Met Ala Pro Ala Met Glu Ser Pro Thr Leu Leu Cys Val Ala Leu Leu
 1   5   10   15
Phe Phe Ala Pro Asp Gly Val Leu Ala Val Pro Gln Lys Pro Thr Val
            20   25   30
Ser Leu Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr
        35   40   45
Leu Thr Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp

50 55 60
Phe His Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile
65 70 75 80
Val Asn Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln
85 90 95
Gln Phe Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp
100 105 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
115 120 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Thr Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
165 170 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
180 185 190
Thr Val Ile Lys Ala Gln His Asp Lys His His His His His His
195 200 205

<210> 13
<211> 207
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 13
Met Ala Pro Ala Met Glu Ser Pro Thr Leu Leu Cys Val Ala Leu Leu
1 5 10 15
Phe Phe Ala Pro Asp Gly Val Leu Ala Val Pro Gln Lys Pro Thr Val
20 25 30
Ser Leu Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr
35 40 45
Leu Thr Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp
50 55 60
Phe His Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile
65 70 75 80
Val Asn Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln
85 90 95
Gln Phe Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp
100 105 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
115 120 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Thr Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
165 170 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
180 185 190
Thr Val Ile Lys Ala Gln His Asp Lys His His His His His His
195 200 205

<210> 14
<211> 55
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 14
Met Gly Gly Ala Ala Ala Arg Leu Gly Ala Val Ile Leu Phe Val Val
1 5 10 15

Ile Val Gly Leu His Gly Val Arg Gly Lys Tyr Ala Leu Ala Asp Ala
20 25 30
Ser Leu Lys Met Ala Asp Pro Asn Arg Phe Arg Gly Lys Asp Leu Pro
35 40 45
Val Leu Asp Gln Leu Leu Glu
50 55

<210> 15
<211> 237
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 15
Met Gly Gly Ala Ala Ala Arg Leu Gly Ala Val Ile Leu Phe Val Val
1 5 10 15
Ile Val Gly Leu His Gly Val Arg Gly Lys Tyr Ala Leu Ala Asp Ala
20 25 30
Ser Leu Lys Met Ala Asp Pro Asn Arg Phe Arg Gly Lys Asp Leu Pro
35 40 45
Val Leu Asp Gln Leu Leu Glu Val Pro Gln Lys Pro Thr Val Ser Leu
50 55 60
Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr Leu Thr
65 70 75 80
Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp Phe His
85 90 95
Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile Val Asn
100 105 110
Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln Gln Phe
115 120 125
Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp Leu Leu
130 135 140
Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu Phe Leu
145 150 155 160
Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile Tyr Tyr
165 170 175
Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn Ile Ser
180 185 190
Ile Thr Asn Thr Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys Thr Gly
195 200 205
Lys Leu Trp Gln Leu Asp Cys Glu Ser Glu Pro Leu Asn Ile Thr Val
210 215 220
Ile Lys Ala Gln His Asp Lys His His His His His His
225 230 235

<210> 16
<211> 293
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 16
Met Gly Gly Ala Ala Ala Arg Leu Gly Ala Val Ile Leu Phe Val Val
1 5 10 15
Ile Val Gly Leu His Gly Val Arg Gly Lys Tyr Ala Leu Ala Asp Ala
20 25 30
Ser Leu Lys Met Ala Asp Pro Asn Arg Phe Arg Gly Lys Asp Leu Pro
35 40 45
Val Leu Asp Gln Leu Leu Glu Val Pro Gln Lys Pro Thr Val Ser Leu
50 55 60
Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr Leu Thr
65 70 75 80
Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp Phe His

```
                85                  90                  95
Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile Val Asn
            100                 105                 110
Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln Gln Phe
        115                 120                 125
Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp Leu Leu
    130                 135                 140
Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu Phe Leu
145                 150                 155                 160
Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile Tyr Tyr
                165                 170                 175
Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn Ile Ser
            180                 185                 190
Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys Thr Gly
        195                 200                 205
Lys Leu Trp Gln Leu Asp Cys Glu Ser Glu Pro Leu Asn Ile Thr Val
    210                 215                 220
Ile Lys Ala Gln His Asp Lys Tyr Trp Leu Gln Phe Leu Ile Pro Leu
225                 230                 235                 240
Leu Val Ala Ile Leu Phe Ala Val Asp Thr Gly Leu Phe Ile Ser Thr
                245                 250                 255
Gln Gln Gln Val Thr Phe Leu Leu Lys Ile Lys Arg Thr Arg Lys Gly
            260                 265                 270
Phe Lys Leu Leu Asn Pro His Pro Lys Pro Asn Pro Lys Ser Asn His
        275                 280                 285
His His His His His
    290
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<210> 17
<211> 293
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 17

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

245 250 255
Gln Gln Gln Val Thr Phe Leu Leu Lys Ile Lys Arg Thr Arg Lys Gly
260 265 270
Phe Arg Leu Leu Thr Pro His Pro Lys Pro Asn Pro Lys Asn Asn His
275 280 285
His His His His His
290

<210> 18
<211> 406
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 18
Val Pro Gln Lys Pro Lys Val Ser Leu Asn Pro Pro Trp Asn Arg Ile
1 5 10 15
Phe Lys Gly Glu Asn Val Thr Leu Thr Cys Asn Gly Asn Asn Phe Phe
20 25 30
Glu Val Ser Ser Thr Lys Trp Phe His Asn Gly Ser Leu Ser Glu Glu
35 40 45
Thr Asn Ser Ser Leu Asn Ile Val Asn Ala Lys Phe Glu Asp Ser Gly
50 55 60
Glu Tyr Lys Cys Gln His Gln Gln Val Asn Glu Ser Glu Pro Val Tyr
65 70 75 80
Leu Glu Val Phe Ser Asp Trp Leu Leu Leu Gln Ala Ser Ala Glu Val
85 90 95
Val Met Glu Gly Gln Pro Leu Phe Leu Arg Cys His Gly Trp Arg Asn
100 105 110
Trp Asp Val Tyr Lys Val Ile Tyr Tyr Lys Asp Gly Glu Ala Leu Lys
115 120 125
Tyr Trp Tyr Glu Asn His Asn Ile Ser Ile Thr Asn Ala Thr Val Glu
130 135 140
Asp Ser Gly Thr Tyr Tyr Cys Thr Gly Lys Leu Trp Gln Leu Asp Tyr
145 150 155 160
Glu Ser Glu Pro Leu Asn Ile Thr Val Ile Lys Ala Pro Arg Glu Lys
165 170 175
Tyr Trp Leu Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu
180 185 190
Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
195 200 205
Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
210 215 220
Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly
225 230 235 240
Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn
245 250 255
Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp
260 265 270
Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro
275 280 285
Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu
290 295 300
Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
305 310 315 320
Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
325 330 335
Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
340 345 350
Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
355 360 365
Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
370 375 380
Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
385 390 395 400
Ser Leu Ser Pro Gly Lys

405

<210> 19
<211> 229
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<223> Fc domain of IgG

<400> 19
Val Thr Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu
1 5 10 15
Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
20 25 30
Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Asp Val
35 40 45
Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val
50 55 60
Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser
65 70 75 80
Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
85 90 95
Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala
100 105 110
Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
115 120 125
Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln
130 135 140
Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
145 150 155 160
Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
165 170 175
Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu
180 185 190
Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
195 200 205
Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
210 215 220
Leu Ser Pro Gly Lys
225

<210> 20
<211> 425
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

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

```
            100                 105                 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
        115                 120                 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
    130                 135                 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145                 150                 155                 160
Ile Ser Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
                165                 170                 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
            180                 185                 190
Thr Val Ile Lys Val Thr Asp Lys Thr His Thr Cys Pro Pro Cys Pro
        195                 200                 205
Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
    210                 215                 220
Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
225                 230                 235                 240
Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
                245                 250                 255
Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
            260                 265                 270
Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
        275                 280                 285
Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
    290                 295                 300
Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
305                 310                 315                 320
Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
                325                 330                 335
Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
            340                 345                 350
Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
        355                 360                 365
Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
    370                 375                 380
Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
385                 390                 395                 400
Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
                405                 410                 415
Lys Ser Leu Ser Leu Ser Pro Gly Lys
            420                 425
```

<210> 21
<211> 426
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 21

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

130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
165 170 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
180 185 190
Thr Val Ile Lys Ala Val Thr Asp Lys Thr His Thr Cys Pro Pro Cys
195 200 205
Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
210 215 220
Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
225 230 235 240
Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
245 250 255
Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
260 265 270
Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
275 280 285
His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
290 295 300
Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
305 310 315 320
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
325 330 335
Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
340 345 350
Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
355 360 365
Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
370 375 380
Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
385 390 395 400
Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
405 410 415
Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
420 425

<210> 22
<211> 427
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 22
Met Ala Pro Ala Met Glu Ser Pro Thr Leu Leu Cys Val Ala Leu Leu
1 5 10 15
Phe Phe Ala Pro Asp Gly Val Leu Ala Val Pro Gln Lys Pro Thr Val
20 25 30
Ser Leu Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr
35 40 45
Leu Thr Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp
50 55 60
Phe His Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile
65 70 75 80
Val Asn Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln
85 90 95
Gln Phe Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp
100 105 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
115 120 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys

```
                165                 170                 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
            180                 185                 190
Thr Val Ile Lys Ala Gln Val Thr Asp Lys Thr His Thr Cys Pro Pro
        195                 200                 205
Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
    210                 215                 220
Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
225                 230                 235                 240
Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
                245                 250                 255
Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
            260                 265                 270
Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
        275                 280                 285
Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
    290                 295                 300
Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
305                 310                 315                 320
Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu
                325                 330                 335
Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
            340                 345                 350
Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
        355                 360                 365
Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
    370                 375                 380
Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
385                 390                 395                 400
Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
                405                 410                 415
Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            420                 425
```

<210> 23
<211> 428
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 23

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

195 200 205
Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe
210 215 220
Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
225 230 235 240
Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
245 250 255
Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
260 265 270
Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
275 280 285
Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
290 295 300
Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
305 310 315 320
Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
325 330 335
Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
340 345 350
Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
355 360 365
Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
370 375 380
Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
385 390 395 400
Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
405 410 415
Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
420 425

<210> 24
<211> 429
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 24
Met Ala Pro Ala Met Glu Ser Pro Thr Leu Leu Cys Val Ala Leu Leu
1 5 10 15
Phe Phe Ala Pro Asp Gly Val Leu Ala Val Pro Gln Lys Pro Thr Val
20 25 30
Ser Leu Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr
35 40 45
Leu Thr Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp
50 55 60
Phe His Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile
65 70 75 80
Val Asn Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln
85 90 95
Gln Phe Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp
100 105 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
115 120 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
165 170 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
180 185 190
Thr Val Ile Lys Ala Gln His Asp Val Thr Asp Lys Thr His Thr Cys
195 200 205
Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu
210 215 220
Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu

225 230 235 240
Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys
245 250 255
Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys
260 265 270
Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu
275 280 285
Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
290 295 300
Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys
305 310 315 320
Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser
325 330 335
Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys
340 345 350
Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln
355 360 365
Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly
370 375 380
Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln
385 390 395 400
Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn
405 410 415
His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
420 425

<210> 25
<211> 430
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 25
Met Ala Pro Ala Met Glu Ser Pro Thr Leu Leu Cys Val Ala Leu Leu
1 5 10 15
Phe Phe Ala Pro Asp Gly Val Leu Ala Val Pro Gln Lys Pro Thr Val
20 25 30
Ser Leu Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr
35 40 45
Leu Thr Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp
50 55 60
Phe His Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile
65 70 75 80
Val Asn Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln
85 90 95
Gln Phe Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp
100 105 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
115 120 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
165 170 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
180 185 190
Thr Val Ile Lys Ala Gln His Asp Lys Val Thr Asp Lys Thr His Thr
195 200 205
Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe
210 215 220
Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
225 230 235 240
Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
245 250 255
Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr

260 265 270
Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
275 280 285
Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
290 295 300
Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
305 310 315 320
Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro
325 330 335
Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val
340 345 350
Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
355 360 365
Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
370 375 380
Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
385 390 395 400
Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
405 410 415
Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
420 425 430

<210> 26
<211> 431
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 26
Met Ala Pro Ala Met Glu Ser Pro Thr Leu Leu Cys Val Ala Leu Leu
1 5 10 15
Phe Phe Ala Pro Asp Gly Val Leu Ala Val Pro Gln Lys Pro Thr Val
20 25 30
Ser Leu Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr
35 40 45
Leu Thr Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp
50 55 60
Phe His Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile
65 70 75 80
Val Asn Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln
85 90 95
Gln Phe Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp
100 105 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
115 120 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
165 170 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
180 185 190
Thr Val Ile Lys Ala Gln His Asp Lys Tyr Val Thr Asp Lys Thr His
195 200 205
Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
210 215 220
Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
225 230 235 240
Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
245 250 255
Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
260 265 270
Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
275 280 285
Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys

290 295 300
Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
305 310 315 320
Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
325 330 335
Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
340 345 350
Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
355 360 365
Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
370 375 380
Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
385 390 395 400
Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
405 410 415
His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
420 425 430

<210> 27
<211> 432
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 27
Met Ala Pro Ala Met Glu Ser Pro Thr Leu Leu Cys Val Ala Leu Leu
1 5 10 15
Phe Phe Ala Pro Asp Gly Val Leu Ala Val Pro Gln Lys Pro Thr Val
20 25 30
Ser Leu Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr
35 40 45
Leu Thr Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp
50 55 60
Phe His Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile
65 70 75 80
Val Asn Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln
85 90 95
Gln Phe Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp
100 105 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
115 120 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
165 170 175
Thr Gly Lys Leu Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
180 185 190
Thr Val Ile Lys Ala Gln His Asp Lys Tyr Trp Val Thr Asp Lys Thr
195 200 205
His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
210 215 220
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
225 230 235 240
Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
245 250 255
Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
260 265 270
Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
275 280 285
Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
290 295 300
Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
305 310 315 320
Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu

325 330 335
Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
340 345 350
Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
355 360 365
Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
370 375 380
Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
385 390 395 400
Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
405 410 415
Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
420 425 430

<210> 28
<211> 432
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 28
Met Ala Pro Ala Met Glu Ser Pro Thr Leu Leu Cys Val Ala Leu Leu
1 5 10 15
Phe Phe Ala Pro Asp Gly Val Leu Ala Val Pro Gln Lys Pro Thr Val
20 25 30
Ser Leu Asn Pro Pro Trp Asn Arg Ile Phe Lys Gly Glu Asn Val Thr
35 40 45
Leu Thr Cys Asn Gly Ser Asn Phe Phe Glu Val Ser Ser Met Lys Trp
50 55 60
Phe His Asn Gly Ser Leu Ser Glu Val Ala Asn Ser Ser Leu Asn Ile
65 70 75 80
Val Asn Ala Asp Phe Glu Asp Ser Gly Glu Tyr Lys Cys Gln His Gln
85 90 95
Gln Phe Asp Asp Ser Glu Pro Val His Leu Glu Val Phe Ser Asp Trp
100 105 110
Leu Leu Leu Gln Ala Ser Ala Glu Val Val Met Glu Gly Gln Pro Leu
115 120 125
Phe Leu Arg Cys His Ser Trp Arg Asn Trp Asp Val Tyr Lys Val Ile
130 135 140
Tyr Tyr Lys Asp Gly Glu Ala Leu Lys Tyr Trp Tyr Glu Asn His Asn
145 150 155 160
Ile Ser Ile Thr Asn Ala Thr Val Glu Asp Ser Gly Thr Tyr Tyr Cys
165 170 175
Thr Gly Lys Val Trp Gln Leu Asp Tyr Glu Ser Glu Pro Leu Asn Ile
180 185 190
Thr Val Ile Lys Ala Pro Arg Glu Lys Tyr Trp Val Thr Asp Lys Thr
195 200 205
His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
210 215 220
Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
225 230 235 240
Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
245 250 255
Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
260 265 270
Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
275 280 285
Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
290 295 300
Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
305 310 315 320
Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
325 330 335
Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
340 345 350
Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser

```
        355                 360                 365
Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
    370                 375                 380
Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
385                 390                 395                 400
Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
                405                 410                 415
Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
            420                 425                 430


<210> 29
<211> 428
<212> PRT
<213> Homo sapiens

<220
<221> misc_feature
<222> 160
<223> x = any amino acid

<400> 29
Ala Ser Thr Gln Ser Pro Ser Val Phe Pro Leu Thr Arg Cys Cys Lys
 1               5                  10                  15
Asn Ile Pro Ser Asn Ala Thr Ser Val Thr Leu Gly Cys Leu Ala Thr
            20                  25                  30
Gly Tyr Phe Pro Glu Pro Val Met Val Thr Trp Asp Thr Gly Ser Leu
        35                  40                  45
Asn Gly Thr Thr Met Thr Leu Pro Ala Thr Thr Leu Thr Leu Ser Gly
    50                  55                  60
His Tyr Ala Thr Ile Ser Leu Leu Thr Val Ser Gly Ala Trp Ala Lys
65                  70                  75                  80
Gln Met Phe Thr Cys Arg Val Ala His Thr Pro Ser Ser Thr Asp Trp
                85                  90                  95
Val Asp Asn Lys Thr Phe Ser Val Cys Ser Arg Asp Phe Thr Pro Pro
            100                 105                 110
Thr Val Lys Ile Leu Gln Ser Ser Cys Asp Gly Gly Gly His Phe Pro
        115                 120                 125
Pro Thr Ile Gln Leu Leu Cys Leu Val Ser Gly Tyr Thr Pro Gly Thr
    130                 135                 140
Ile Asn Ile Thr Trp Leu Glu Asp Gly Gln Val Met Asp Val Asp Xaa
145                 150                 155                 160
Ser Thr Ala Ser Thr Thr Gln Glu Gly Glu Leu Ala Ser Thr Gln Ser
                165                 170                 175
Glu Leu Thr Leu Ser Gln Lys His Trp Leu Ser Asp Arg Thr Tyr Thr
            180                 185                 190
Cys Gln Val Thr Tyr Gln Gly His Thr Phe Glu Asp Ser Thr Lys Lys
        195                 200                 205
Cys Ala Asp Ser Asn Pro Arg Gly Val Ser Ala Tyr Leu Ser Arg Pro
    210                 215                 220
Ser Pro Phe Asp Leu Phe Ile Arg Lys Ser Pro Thr Ile Thr Cys Leu
225                 230                 235                 240
Val Val Asp Leu Ala Pro Ser Lys Gly Thr Val Asn Leu Thr Trp Ser
                245                 250                 255
Arg Ala Ser Gly Lys Pro Val Asn His Ser Thr Arg Lys Glu Glu Lys
            260                 265                 270
Gln Arg Asn Gly Thr Leu Thr Val Thr Ser Thr Leu Pro Val Gly Thr
        275                 280                 285
Arg Asp Trp Ile Glu Gly Glu Thr Tyr Gln Cys Arg Val Thr His Pro
    290                 295                 300
His Leu Pro Arg Ala Leu Met Arg Ser Thr Thr Lys Thr Ser Gly Pro
305                 310                 315                 320
Arg Ala Ala Pro Glu Val Tyr Ala Phe Ala Thr Pro Glu Trp Pro Gly
                325                 330                 335
Ser Arg Asp Lys Arg Thr Leu Ala Cys Leu Ile Gln Asn Phe Met Pro
            340                 345                 350
Glu Asp Ile Ser Val Gln Trp Leu His Asn Glu Val Gln Leu Pro Asp
        355                 360                 365
Ala Arg His Ser Thr Thr Gln Pro Arg Lys Thr Lys Gly Ser Gly Phe
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370 375 380
Phe Val Phe Ser Arg Leu Glu Val Thr Arg Ala Glu Trp Glu Gln Lys
385 390 395 400
Asp Glu Phe Ile Cys Arg Ala Val His Glu Ala Ala Ser Pro Ser Gln
405 410 415
Thr Val Gln Arg Ala Val Ser Val Asn Pro Gly Lys
420 425

<210> 30
<211> 106
<212> PRT
<213> Homo sapiens

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

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

<220>
<223> Synthetic construct

<400> 31
Ala Gln His Asp Lys Tyr Trp
1 5