SEQUENCE LISTING

<110> Teva Pharmaceuticals Australia Pty Ltd

<120> Antibodies that Specifically Bind to TL1A

<130> 185704-3019

<160> 71

<170> PatentIn version 3.5

<210> 1
<211> 119
<212> PRT
<213> Homo sapiens

<400> 1

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Leu Asn Pro Asn Ser Gly Asn Thr Gly Tyr Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Ala Asp Arg Ser Thr Ser Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Glu Val Pro Glu Thr Ala Ala Phe Glu Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 2
<211> 111
<212> PRT
<213> Homo sapiens

<400> 2

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
            20   25   30

Leu Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35   40   45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50   55   60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65   70   75   80

Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Tyr Asp Gly Thr
                85   90   95

Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100   105   110

<210> 3
<211> 119
<212> PRT
<213> Homo sapiens

<400> 3

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
            20   25   30

```
Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
        35                  40                  45

Gly Trp Leu Asn Pro Asn Ser Gly Tyr Thr Gly Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Ala Asp Arg Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Arg Glu Val Pro Glu Thr Ala Ala Phe Glu Tyr Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 4
<211> 111
<212> PRT
<213> Homo sapiens

<400> 4

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
            20                  25                  30

Leu Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35                  40                  45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80
```

```
Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Trp Asp Gly Thr
                85                  90                  95


Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110


<210>  5
<211>  111
<212>  PRT
<213>  Homo sapiens

<400>  5

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


Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Ala
            20                  25                  30


Leu Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35                  40                  45


Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60


Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80


Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Trp Asp Gly Thr
                85                  90                  95


Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110


<210>  6
<211>  111
<212>  PRT
<213>  Homo sapiens
```

<400> 6

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
20 25 30

Ser Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65 70 75 80

Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Trp Asp Gly Thr
85 90 95

Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 7
<211> 111
<212> PRT
<213> Homo sapiens

<400> 7

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
20 25 30

Gln Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe

```
    50                  55                  60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80

Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Trp Asp Gly Thr
                85                  90                  95

Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110
```

<210> 8
<211> 111
<212> PRT
<213> Homo sapiens

<400> 8

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
            20                  25                  30

Leu Gly Val Leu Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35                  40                  45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80

Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Trp Asp Gly Thr
                85                  90                  95

Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110
```

<210> 9
<211> 111
<212> PRT
<213> Homo sapiens

<400> 9

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
20 25 30

Leu Gly Val Leu Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65 70 75 80

Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Tyr Asp Gly Thr
85 90 95

Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 10
<211> 111
<212> PRT
<213> Homo sapiens

<400> 10

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
20 25 30

```
Leu Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35                  40                  45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80

Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Phe Asp Gly Thr
                85                  90                  95

Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110
```

<210> 11
<211> 111
<212> PRT
<213> Homo sapiens

<400> 11

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Ala
            20                  25                  30

Leu Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35                  40                  45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80

Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Tyr Asp Gly Thr
                85                  90                  95
```

```
Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110


<210>  12
<211>  111
<212>  PRT
<213>  Homo sapiens

<400>  12

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


Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
            20                  25                  30


Ser Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35                  40                  45


Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60


Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80


Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Tyr Asp Gly Thr
                85                  90                  95


Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110


<210>  13
<211>  111
<212>  PRT
<213>  Homo sapiens

<400>  13

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

```
Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
            20                  25                  30


Gln Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35                  40                  45


Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60


Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80


Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Tyr Asp Gly Thr
                85                  90                  95


Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
            100                 105                 110


<210>  14
<211>  111
<212>  PRT
<213>  Homo sapiens


<220>
<221>  Xaa
<222>  (32)..(32)
<223>  G or A

<220>
<221>  Xaa
<222>  (33)..(33)
<223>  L or S or Q

<220>
<221>  Xaa
<222>  (36)..(36)
<223>  H or L

<220>
<221>  Xaa
<222>  (93)..(93)
<223>  Y or F or W
```

<400> 14

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

Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Xaa
20 25 30

Xaa Gly Val Xaa Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
35 40 45

Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65 70 75 80

Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Xaa Asp Gly Thr
85 90 95

Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

<210> 15
<211> 10
<212> PRT
<213> Homo sapiens

<400> 15

Gly Tyr Thr Phe Thr Ser Tyr Asp Ile Asn
1 5 10

<210> 16
<211> 10
<212> PRT
<213> Homo sapiens

<400> 16

Trp Leu Asn Pro Asn Ser Gly Asn Thr Gly

1 5 10

<210> 17
<211> 10
<212> PRT
<213> Homo sapiens

<400> 17

Glu Val Pro Glu Thr Ala Ala Phe Glu Tyr
1 5 10

<210> 18
<211> 14
<212> PRT
<213> Homo sapiens

<400> 18

Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly Leu Gly Val His
1 5 10

<210> 19
<211> 7
<212> PRT
<213> Homo sapiens

<400> 19

Gly Tyr Tyr Asn Arg Pro Ser
1 5

<210> 20
<211> 10
<212> PRT
<213> Homo sapiens

<400> 20

Gln Ser Tyr Asp Gly Thr Leu Ser Ala Leu
1 5 10

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

<213> Homo sapiens

<400> 21

Trp Leu Asn Pro Asn Ser Gly Tyr Thr Gly
1   5   10

<210> 22
<211> 10
<212> PRT
<213> Homo sapiens

<400> 22

Gln Ser Trp Asp Gly Thr Leu Ser Ala Leu
1   5   10

<210> 23
<211> 14
<212> PRT
<213> Homo sapiens

<400> 23

Thr Ser Ser Ser Ser Asp Ile Gly Ala Ala Leu Gly Val His
1   5   10

<210> 24
<211> 14
<212> PRT
<213> Homo sapiens

<400> 24

Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly Ser Gly Val His
1   5   10

<210> 25
<211> 14
<212> PRT
<213> Homo sapiens

<400> 25

Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly Gln Gly Val His
1   5   10

<210> 26
<211> 14
<212> PRT
<213> Homo sapiens

<400> 26

Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly Leu Gly Val Leu
1   5   10

<210> 27
<211> 10
<212> PRT
<213> Homo sapiens

<400> 27

Gln Ser Phe Asp Gly Thr Leu Ser Ala Leu
1   5   10

<210> 28
<211> 10
<212> PRT
<213> Homo sapiens

<220>
<221> Xaa
<222> (8)..(8)
<223> N or Y

<400> 28

Trp Leu Asn Pro Asn Ser Gly Xaa Thr Gly
1   5   10

<210> 29
<211> 14
<212> PRT
<213> Homo sapiens

<220>
<221> Xaa
<222> (10)..(10)

<223> G or A

<220>
<221> Xaa
<222> (11)..(11)
<223> L or S or Q

<220>
<221> Xaa
<222> (14)..(14)
<223> H or L

<400> 29

Thr Ser Ser Ser Ser Asp Ile Gly Ala Xaa Xaa Gly Val Xaa
1   5   10

<210> 30
<211> 10
<212> PRT
<213> Homo sapiens

<220>
<221> Xaa
<222> (3)..(3)
<223> Y or W or F

<400> 30

Gln Ser Xaa Asp Gly Thr Leu Ser Ala Leu
1   5   10

<210> 31
<211> 180
<212> PRT
<213> Homo sapiens

<400> 31

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

Leu Arg Ala Asp Gly Asp Lys Pro Arg Ala His Leu Thr Val Val Arg
            20   25   30

```
Gln Thr Pro Thr Gln His Phe Lys Asn Gln Phe Pro Ala Leu His Trp
        35                  40                  45

Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60

Asn Lys Phe Leu Leu Ile Pro Glu Ser Gly Asp Tyr Phe Ile Tyr Ser
65                  70                  75                  80

Gln Val Thr Phe Arg Gly Met Thr Ser Glu Cys Ser Glu Ile Arg Gln
                85                  90                  95

Ala Gly Arg Pro Asn Lys Pro Asp Ser Ile Thr Val Val Ile Thr Lys
            100                 105                 110

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

Ser Val Cys Glu Val Gly Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly
    130                 135                 140

Ala Met Phe Ser Leu Gln Glu Gly Asp Lys Leu Met Val Asn Val Ser
145                 150                 155                 160

Asp Ile Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly
                165                 170                 175

Ala Phe Leu Leu
            180
```

<210> 32
<211> 180
<212> PRT
<213> Homo sapiens

<400> 32

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

```
Leu Arg Ala Asp Gly Asp Lys Pro Arg Ala His Leu Thr Val Val Arg
            20                  25                  30

Gln Thr Pro Thr Gln His Phe Lys Asn Gln Phe Pro Ala Leu His Trp
        35                  40                  45

Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60

Asn Lys Phe Leu Leu Ile Pro Glu Ser Gly Asp Tyr Phe Ile Tyr Ser
65                  70                  75                  80

Gln Val Thr Phe Ala Gly Met Thr Ser Glu Cys Ser Glu Ile Arg Gln
                85                  90                  95

Ala Gly Arg Pro Asn Lys Pro Asp Ser Ile Thr Val Val Ile Thr Lys
            100                 105                 110

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

Ser Val Cys Glu Val Gly Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly
    130                 135                 140

Ala Met Phe Ser Leu Gln Glu Gly Asp Lys Leu Met Val Asn Val Ser
145                 150                 155                 160

Asp Ile Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly
                165                 170                 175

Ala Phe Leu Leu
            180
```

<210> 33
<211> 210
<212> PRT
<213> Homo sapiens

<400> 33

```
Asp Tyr Lys Asp Asp Asp Asp Lys Gly Ser His His His His His His
1               5                   10                  15

His His Gly Ser Gly Ser Leu Val Pro Arg Gly Ser Gly Ser Leu Lys
            20                  25                  30

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

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

Pro Thr Gln His Phe Lys Asn Gln Phe Pro Ala Leu His Trp Glu His
65                  70                  75                  80

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

Phe Leu Leu Ile Pro Glu Ser Gly Asp Tyr Phe Ile Tyr Ser Gln Val
            100                 105                 110

Thr Phe Arg Gly Met Thr Ser Glu Cys Ser Glu Ile Arg Gln Ala Gly
        115                 120                 125

Arg Pro Asn Lys Pro Asp Ser Ile Thr Val Val Ile Thr Lys Val Thr
    130                 135                 140

Asp Ser Tyr Pro Glu Pro Thr Gln Leu Leu Met Gly Thr Lys Ser Val
145                 150                 155                 160

Cys Glu Val Gly Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly Ala Met
                165                 170                 175

Phe Ser Leu Gln Glu Gly Asp Lys Leu Met Val Asn Val Ser Asp Ile
            180                 185                 190
```

```
Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly Ala Phe
        195                 200                 205


Leu Leu
    210
```

<210> 34
<211> 180
<212> PRT
<213> Macaca fascicularis

<400> 34

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


Leu Arg Ala Asp Gly Asp Lys Pro Arg Ala His Leu Thr Val Val Arg
            20                  25                  30


Gln Thr Pro Thr Gln His Leu Lys Asn Gln Phe Pro Ala Leu His Trp
        35                  40                  45


Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60


Asn Lys Phe Leu Leu Ile Pro Glu Ser Gly Asp Tyr Phe Val Tyr Ser
65                  70                  75                  80


Gln Val Thr Phe Arg Gly Met Thr Ser Glu Cys Ser Glu Ile Arg Gln
                85                  90                  95


Ala Gly Arg Pro Asn Lys Pro Asp Ser Ile Thr Val Val Ile Thr Lys
            100                 105                 110


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


Ser Val Cys Glu Val Gly Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly
    130                 135                 140
```

```
Ala Met Phe Ser Leu Gln Glu Gly Asp Lys Leu Met Val Asn Val Ser
145                 150                 155                 160


Asp Ile Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly
                165                 170                 175


Ala Phe Leu Leu
            180


<210>  35
<211>  180
<212>  PRT
<213>  Mus musculus

<400>  35

Leu Arg Ala Ile Thr Glu Glu Arg Ser Glu Pro Ser Pro Gln Gln Val
1               5                   10                  15


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


Gln Thr Pro Ala Pro His Leu Lys Asn Gln Leu Ser Ala Leu His Trp
        35                  40                  45


Glu His Asp Leu Gly Met Ala Phe Thr Lys Asn Gly Met Lys Tyr Ile
    50                  55                  60


Asn Lys Ser Leu Val Ile Pro Glu Ser Gly Asp Tyr Phe Ile Tyr Ser
65                  70                  75                  80


Gln Ile Thr Phe Arg Gly Thr Thr Ser Val Cys Gly Asp Ile Ser Arg
                85                  90                  95


Gly Arg Arg Pro Asn Lys Pro Asp Ser Ile Thr Met Val Ile Thr Lys
            100                 105                 110


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

```
Ser Val Cys Glu Ile Ser Asn Asn Trp Phe Gln Ser Leu Tyr Leu Gly
    130                 135                 140

Ala Thr Phe Ser Leu Glu Glu Gly Asp Arg Leu Met Val Asn Val Ser
145                 150                 155                 160

Asp Ile Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly
                165                 170                 175

Ala Phe Leu Leu
            180
```

<210> 36
<211> 180
<212> PRT
<213> Rattus norvegicus

<400> 36

```
Phe Pro Thr Val Thr Glu Glu Arg Ser Ala Pro Ser Ala Gln Pro Val
1               5                   10                  15

Tyr Thr Pro Ser Arg Asp Lys Pro Lys Ala His Leu Thr Ile Met Arg
            20                  25                  30

Gln Thr Pro Val Pro His Leu Lys Asn Glu Leu Ala Ala Leu His Trp
        35                  40                  45

Glu Asn Asn Leu Gly Met Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60

Asn Lys Phe Leu Val Ile Pro Glu Ser Gly Asp Tyr Phe Ile Tyr Ser
65                  70                  75                  80

Gln Ile Thr Phe Arg Gly Thr Thr Ser Glu Cys Gly Asp Ile Ser Arg
                85                  90                  95

Val Arg Arg Pro Lys Lys Pro Asp Ser Ile Thr Val Val Ile Thr Lys
```

```
            100                 105                 110

Val Ala Asp Ser Tyr Pro Glu Pro Ala His Leu Leu Thr Gly Thr Lys
        115                 120                 125

Ser Val Cys Glu Ile Ser Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly
    130                 135                 140

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

Asp Ile Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly
                165                 170                 175

Ala Phe Leu Ile
            180
```

<210> 37
<211> 179
<212> PRT
<213> Cavia porcellus

<400> 37

```
Ile Asn Glu Gln Arg Phe Gly Pro Ser Tyr Gln Arg Val Tyr Thr Pro
1               5                   10                  15

Leu Arg Asp Asp Arg Asp Lys Pro Arg Ala His Leu Thr Val Val Arg
            20                  25                  30

Gln Thr Pro Thr Gln His Leu Lys Asn Gln Phe Pro Ala Leu His Trp
        35                  40                  45

Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60

Asn Lys Phe Leu Val Ile Pro Glu Thr Gly Asp Tyr Phe Val Tyr Ser
65                  70                  75                  80
```

```
Gln Ile Thr Phe Arg Gly Thr Thr Ser Glu Cys Gly Ile Ser Pro Gly
                85                  90                  95

Arg Gln Gln Asn Lys Pro Asp Ser Ile Phe Val Val Ile Thr Lys Val
            100                 105                 110

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

Val Cys Glu Ile Ser Ser Asn Trp Phe Gln Pro Leu Tyr Leu Gly Ala
    130                 135                 140

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

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

Phe Leu Leu
```

<210> 38
<211> 180
<212> PRT
<213> Felis catus

<400> 38

```
Pro Lys Gly Arg Glu Phe Gly Pro Ser His Gln Arg Ala Tyr Thr Ser
1               5                   10                  15

Pro Gly Ala Gly Gly Asp Lys Pro Arg Ala His Leu Thr Val Val Arg
            20                  25                  30

Gln Thr Pro Thr Gln Pro Leu Lys Asn Gln Phe Pro Ala Leu His Trp
        35                  40                  45

Glu His Glu Leu Gly Leu Ala Phe Ile Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60
```

```
Asn Lys Phe Leu Val Ile Pro Glu Ser Gly Asp Tyr Phe Val Tyr Ser
65                  70                  75                  80


Gln Val Thr Phe Arg Gly Thr Thr Ser Glu Cys Gly Glu Ile Arg Gln
                85                  90                  95


Gly Ser Arg Leu Asn Lys Pro Asp Ser Ile Ile Val Val Ile Thr Lys
            100                 105                 110


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


Ser Val Cys Glu Val Gly Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly
    130                 135                 140


Ala Met Phe Ser Leu Gln Glu Gly Asp Lys Leu Met Val Asn Val Ser
145                 150                 155                 160


Asp Ile Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly
                165                 170                 175


Ala Phe Leu Leu
            180


<210>  39
<211>  180
<212>  PRT
<213>  Sus scrofa

<400>  39

Pro Lys Gly Gln Glu Leu Gly Pro Ser His Gln Arg Val Tyr Ala Pro
1               5                   10                  15


Pro Gly Ala Gly Arg Asp Lys Pro Arg Ala His Leu Thr Val Val Arg
            20                  25                  30


Gln Thr Ser Thr Glu Pro Leu Lys Asn Gln Phe Pro Ala Leu His Trp
        35                  40                  45
```

```
Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60

Asn Lys Phe Leu Val Ile Pro Glu Ser Gly Asp Tyr Phe Ile Tyr Ser
65                  70                  75                  80

Gln Val Thr Phe Arg Gly Thr Thr Ser Glu Cys Gly Glu Ile Ser Gln
                85                  90                  95

Glu Arg Arg Leu Asn Lys Pro Asp Ser Ile Ile Val Val Ile Thr Lys
            100                 105                 110

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

Ser Val Cys Glu Ile Gly Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly
    130                 135                 140

Ala Met Phe Ser Leu His Glu Gly Asp Lys Leu Met Val Asn Val Ser
145                 150                 155                 160

Asp Ile Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly
                165                 170                 175

Ala Phe Leu Leu
            180
```

<210> 40
<211> 179
<212> PRT
<213> Oryctolagus cuniculus

<400> 40

```
Leu Lys Gly Arg Glu Phe Gly Pro Ser Gln Gln Arg Ala Tyr Met Pro
1               5                   10                  15

Leu Arg Ala Asp Gly Asn Lys Pro Arg Ala His Leu Thr Ala Val Lys
```

```
            20                  25                  30

Gln Thr Pro Thr Gln Pro Leu Arg Asn His Phe Pro Ala Leu His Trp
        35                  40                  45

Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60

Asn Lys Phe Leu Val Ile Pro Glu Ser Gly Asp Tyr Phe Val Tyr Ser
65                  70                  75                  80

Gln Val Thr Phe Arg Gly Thr Thr Ser Glu Cys Gly Val Ile Asn Gln
                85                  90                  95

Arg Arg Arg Gln Thr Lys Pro Asp Ser Ile Val Val Val Ile Thr Lys
            100                 105                 110

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

Ser Val Cys Glu Met Gly Asn Trp Phe Gln Pro Ile Tyr Leu Gly Ala
    130                 135                 140

Met Phe Ser Leu Glu Glu Gly Asp Lys Leu Met Val Asn Val Ser Asp
145                 150                 155                 160

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

Phe Leu Leu
```

<210> 41
<211> 180
<212> PRT
<213> Canis familiaris

<400> 41

```
Pro Lys Gly Gln Glu Phe Gly His Ser His Gln Arg Ala Tyr Ala Ser
1               5                   10                  15

Pro Arg Ala Gly Gly Asp Lys Pro Arg Ala His Leu Thr Val Val Arg
            20                  25                  30

Gln Ser Pro Thr Gln Pro Leu Glu Ser Leu Phe Pro Ala Leu His Trp
        35                  40                  45

Glu His Glu Leu Gly Leu Ala Phe Thr Lys Asn Arg Met Asn Tyr Thr
    50                  55                  60

Asn Lys Phe Leu Val Ile Pro Glu Ser Gly Asp Tyr Phe Val Tyr Ser
65                  70                  75                  80

Gln Val Thr Phe Arg Gly Thr Thr Ser Glu Cys Gly Glu Ala Arg Gln
                85                  90                  95

Gly Ser Arg Leu Asn Lys Pro Asp Ser Ile Ile Val Val Ile Thr Lys
            100                 105                 110

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

Ser Val Cys Glu Val Gly Ser Asn Trp Phe Gln Pro Ile Tyr Leu Gly
    130                 135                 140

Ala Met Phe Ser Leu Gln Glu Gly Asp Lys Leu Met Val Asn Val Ser
145                 150                 155                 160

Asp Ile Ser Leu Val Asp Tyr Thr Lys Glu Asp Lys Thr Phe Phe Gly
                165                 170                 175

Ala Phe Leu Leu
            180
```

<210> 42
<211> 330

<212> PRT
<213> Homo sapiens

<400> 42

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1               5                   10                  15


Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30


Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45


Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60


Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65                  70                  75                  80


Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95


Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
            100                 105                 110


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


Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
    130                 135                 140


Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160


Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175


Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
```

```
            180                 185                 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205

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

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225                 230                 235                 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
                245                 250                 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
            260                 265                 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
                325                 330
```

<210> 43
<211> 329
<212> PRT
<213> Homo sapiens

<400> 43

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1               5                   10                  15
```

```
Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65                  70                  75                  80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
            100                 105                 110

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

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
    130                 135                 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205

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

```
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225                 230                 235                 240


Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
                245                 250                 255


Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
            260                 265                 270


Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285


Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300


Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320


Gln Lys Ser Leu Ser Leu Ser Pro Gly
                325


<210>  44
<211>  330
<212>  PRT
<213>  Homo sapiens

<400>  44

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


Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30


Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45


Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
```

```
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65                  70                  75                  80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
            100                 105                 110

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

Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val Thr Cys
    130                 135                 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205

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

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225                 230                 235                 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
                245                 250                 255
```

```
Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
            260                 265                 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
                325                 330
```

<210> 45
<211> 327
<212> PRT
<213> Homo sapiens

<400> 45

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1               5                   10                  15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65                  70                  75                  80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95
```

```
Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110

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

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
    130                 135                 140

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

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
        195                 200                 205

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

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225                 230                 235                 240

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                245                 250                 255

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            260                 265                 270

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        275                 280                 285
```

```
Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
    290                 295                 300

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305                 310                 315                 320

Leu Ser Leu Ser Leu Gly Lys
                325
```

<210> 46
<211> 326
<212> PRT
<213> Homo sapiens

<400> 46

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1               5                   10                  15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65                  70                  75                  80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110

Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
        115                 120                 125
```

```
Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
    130                 135                 140

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

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
        195                 200                 205

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

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225                 230                 235                 240

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                245                 250                 255

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            260                 265                 270

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        275                 280                 285

Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
    290                 295                 300

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305                 310                 315                 320

Leu Ser Leu Ser Leu Gly
```

325

<210> 47
<211> 327
<212> PRT
<213> Homo sapiens

<400> 47

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

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
100 105 110

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

Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val Thr Cys Val Val Val
130 135 140

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

```
Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
        195                 200                 205

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

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225                 230                 235                 240

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                245                 250                 255

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            260                 265                 270

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        275                 280                 285

Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
    290                 295                 300

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305                 310                 315                 320

Leu Ser Leu Ser Leu Gly Lys
                325
```

<210> 48
<211> 105
<212> PRT
<213> Homo sapiens

<400> 48

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


Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
            20                  25                  30


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


Lys Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys
    50                  55                  60


Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser
65                  70                  75                  80


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


Lys Thr Val Ala Pro Thr Glu Cys Ser
            100                 105
```

<210> 49
<211> 357
<212> DNA
<213> Homo sapiens

<400> 49

```
caggtgcagc tggtgcagtc tggggcggag gtgaagaagc ctggggcctc agtgaaggtc       60

tcctgcaagg cttctggata caccttcacc agttatgata tcaactgggt gcgacaggcc      120

cccggacaag ggcttgagtg gatgggatgg ctgaacccta acagtggtaa cacaggctat      180

gcacagaagt tccagggcag agtcaccatg accgcagatc gttccaccag cacagcctac      240

atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc gagagaagtg      300

cctgagacgg ccgcctttga gtactggggc cagggaaccc tggtcaccgt ctcctca         357
```

<210> 50
<211> 333

<212> DNA
<213> Homo sapiens

<400> 50
cagagcgtgc tgacacagcc tccatccgtg tctggcgccc ctggccagag agtgaccatc 60

agctgcacca gcagcagcag cgacatcgga gccggcctgg gcgtgcactg gtatcagcag 120

ctgcctggca ccgcccccaa gctgctgatc gagggctact acaaccggcc cagcggcgtg 180

cccgaccggt ttagcggcag caagagcggc accagcgcca gcctgacaat caccggcctg 240

ctgcccgagg acgagggcga ctactactgc cagagctacg acggcaccct gagcgccctg 300

ttcggcggag gcaccaagct gaccgtccta ggt 333

<210> 51
<211> 357
<212> DNA
<213> Homo sapiens

<400> 51
caggtgcagc tggtgcagtc cggcgccgag gtgaagaaac ccggcgcctc cgtgaaggtg 60

tcctgcaagg ccagcggcta caccttcacc tcctacgaca tcaactgggt gaggcaggcc 120

cccggccagg gcctggagtg gatgggctgg ctgaacccca actccggcta caccggctac 180

gcccagaagt tccagggcag ggtgaccatg accgccgaca ggtccacctc caccgcctac 240

atggagctgt ccagcctgag gtccgaggac accgccgtgt actattgcgc cagggaggtg 300

cccgagaccg ctgccttcga gtactggggc cagggcaccc tggtgaccgt gtccagc 357

<210> 52
<211> 333
<212> DNA
<213> Homo sapiens

<400> 52
cagagcgtgc tgacacagcc tccatccgtg tctggcgccc ctggccagag agtgaccatc 60

agctgcacca gcagcagcag cgacatcgga gccggcctgg gcgtgcactg gtatcagcag 120

ctgcctggca ccgcccccaa gctgctgatc gagggctact acaaccggcc cagcggcgtg 180

cccgaccggt ttagcggcag caagagcggc accagcgcca gcctgacaat caccggcctg 240

ctgcccgagg acgagggcga ctactactgc cagagctggg acggcaccct gagcgccctg 300

ttcggcggag gcaccaagct gaccgtccta ggt 333

<210> 53
<211> 333
<212> DNA
<213> Homo sapiens

<400> 53
cagagcgtgc tgacacagcc tccatccgtg tctggcgccc ctggccagag agtgaccatc 60

agctgcacca gcagcagcag cgacatcgga gccgctctgg gcgtgcactg gtatcagcag 120

ctgcctggca ccgcccccaa gctgctgatc gagggctact acaaccggcc cagcggcgtg 180

cccgaccggt ttagcggcag caagagcggc accagcgcca gcctgacaat caccggcctg 240

ctgcccgagg acgagggcga ctactactgc cagagctggg acggcaccct gagcgccctg 300

ttcggcggag gcaccaagct gaccgtccta ggt 333

<210> 54
<211> 333
<212> DNA
<213> Homo sapiens

<400> 54
cagagcgtgc tgacacagcc tccatccgtg tctggcgccc ctggccagag agtgaccatc 60

agctgcacca gcagcagcag cgacatcgga gccggcagcg gcgtgcactg gtatcagcag 120

ctgcctggca ccgcccccaa gctgctgatc gagggctact acaaccggcc cagcggcgtg 180

cccgaccggt ttagcggcag caagagcggc accagcgcca gcctgacaat caccggcctg 240

ctgcccgagg acgagggcga ctactactgc cagagctggg acggcaccct gagcgccctg 300

ttcggcggag gcaccaagct gaccgtccta ggt 333

<210> 55
<211> 333
<212> DNA
<213> Homo sapiens

<400> 55
cagagcgtgc tgacacagcc tccatccgtg tctggcgccc ctggccagag agtgaccatc 60

agctgcacca gcagcagcag cgacatcgga gccggccagg gcgtgcactg gtatcagcag 120

ctgcctggca ccgcccccaa gctgctgatc gagggctact acaaccggcc cagcggcgtg 180

cccgaccggt ttagcggcag caagagcggc accagcgcca gcctgacaat caccggcctg 240

ctgcccgagg acgagggcga ctactactgc cagagctggg acggcaccct gagcgccctg 300

ttcggcggag gcaccaagct gaccgtccta ggt 333

<210> 56
<211> 333
<212> DNA
<213> Homo sapiens

<400> 56
cagagcgtgc tgacacagcc tccatccgtg tctggcgccc ctggccagag agtgaccatc 60

agctgcacca gcagcagcag cgacatcgga gccggcctgg gcgtgctgtg gtatcagcag 120

ctgcctggca ccgcccccaa gctgctgatc gagggctact acaaccggcc cagcggcgtg 180

cccgaccggt ttagcggcag caagagcggc accagcgcca gcctgacaat caccggcctg 240

ctgcccgagg acgagggcga ctactactgc cagagctggg acggcaccct gagcgccctg 300

ttcggcggag gcaccaagct gaccgtccta ggt 333

<210> 57
<211> 333
<212> DNA
<213> Homo sapiens

<400> 57
cagagcgtgc tgacacagcc tccatccgtg tctggcgccc ctggccagag agtgaccatc 60

agctgcacca gcagcagcag cgacatcgga gccggcctgg gcgtgcactg gtatcagcag 120

ctgcctggca ccgcccccaa gctgctgatc gagggctact acaaccggcc cagcggcgtg 180

cccgaccggt ttagcggcag caagagcggc accagcgcca gcctgacaat caccggcctg 240

ctgcccgagg acgagggcga ctactactgc cagagctttg acggcaccct gagcgccctg 300

ttcggcggag gcaccaagct gaccgtccta ggt 333

<210> 58
<211> 1344
<212> DNA
<213> Homo sapiens

<400> 58
caggtgcagc tggtgcagtc cggcgccgag gtgaagaaac ccggcgcctc cgtgaaggtg 60

tcctgcaagg ccagcggcta caccttcacc tcctacgaca tcaactgggt gaggcaggcc 120

cccggccagg gcctggagtg gatgggctgg ctgaacccca actccggcta caccggctac 180

gcccagaagt tccagggcag ggtgaccatg accgccgaca ggtccacctc caccgcctac 240

atggagctgt ccagcctgag gtccgaggac accgccgtgt actattgcgc cagggaggtg 300

cccgagaccg ctgccttcga gtactggggc cagggcaccc tggtgaccgt gtccagcgcc 360

tccaccaagg gccccagcgt gttccccctg gcccccagct ccaagtccac cagcggcgga 420

accgccgctc tgggctgcct ggtgaaggac tacttccccg agcccgtgac cgtgagctgg 480

aactccggcg ccctgacctc cggcgtgcac accttccccg ccgtgctgca gtccagcggc 540

ctgtactccc tgagctccgt ggtcaccgtg ccctcctcta gcctgggcac ccagacctac 600

atctgcaacg tgaaccacaa gccctccaac accaaggtgg acaaaaaggt ggagcccaag 660

tcctgcgaca agactcacac ctgtcctccc tgccccgccc ccgagctgct cggcggaccc 720

tccgtgttcc tgttcccacc caagcccaag gacaccctga tgatctccag gacccccgag 780

gtgacctgcg tggtcgtgga cgtgtcccac gaggaccctg aggtgaagtt caactggtac 840

gtggacggcg tggaggtgca caacgccaag accaagccca gggaggaaca gtacaactcc 900

acctaccggg tcgtgtccgt gctgaccgtc ctgcaccagg actggctgaa cggcaaggag 960

tacaagtgca aggtgtccaa caaggccctg cccgccccca tcgagaagac catctccaag 1020

gccaagggcc agcctcggga gccccaggtg tacacactgc ccccttccag ggacgagctg 1080

accaagaacc aggtgtccct gacctgtctg gtgaagggct tctacccctc cgacatcgcc 1140

gtggagtggg agtccaacgg ccagcccgag aacaattaca agaccacacc tcccgtcctg 1200

gactccgacg gctccttctt tctgtactcc aagctgaccg tggacaagtc caggtggcag 1260

caaggcaacg tgttctcctg ctccgtgatg cacgaggccc tgcacaacca ctacacccag 1320

aagtccctga gcctgtcccc cggc 1344

<210> 59
<211> 648
<212> DNA
<213> Homo sapiens

<400> 59
cagagcgtgc tgacacagcc tccatccgtg tctggcgccc ctggccagag agtgaccatc 60

agctgcacca gcagcagcag cgacatcgga gccggcctgg gcgtgcactg gtatcagcag 120

ctgcctggca ccgcccccaa gctgctgatc gagggctact acaaccggcc cagcggcgtg 180

cccgaccggt ttagcggcag caagagcggc accagcgcca gcctgacaat caccggcctg 240

ctgcccgagg acgagggcga ctactactgc cagagctggg acggcaccct gagcgccctg 300

ttcggcggag gcaccaagct gaccgtccta ggtcagccca aggccgctcc cagcgtgacc 360

ctgttccccc caagcagcga ggaactgcag gccaacaagg ccaccctggt gtgcctgatc 420

agcgacttct accctggggc cgtgaccgtg gcctggaagg ccgatagcag ccctgtgaag 480

gccggcgtgg aaaccaccac cccctccaag cagagcaaca acaaatacgc cgccagcagc 540

tacctgtccc tgaccccga gcagtggaag tcccaccggt cctacagctg ccaggtgaca 600

cacgagggca gcaccgtgga aaagaccgtg gcccccaccg agtgcagc 648

<210> 60
<211> 448
<212> PRT
<213> Homo sapiens

<400> 60

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
20 25 30

Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

```
Gly Trp Leu Asn Pro Asn Ser Gly Tyr Thr Gly Tyr Ala Gln Lys Phe
    50                  55                  60

Gln Gly Arg Val Thr Met Thr Ala Asp Arg Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
                85                  90                  95

Ala Arg Glu Val Pro Glu Thr Ala Ala Phe Glu Tyr Trp Gly Gln Gly
            100                 105                 110

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

Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
    130                 135                 140

Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145                 150                 155                 160

Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
                165                 170                 175

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
            180                 185                 190

Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
        195                 200                 205

Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
    210                 215                 220

Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro
225                 230                 235                 240

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
```

```
                245                 250                 255

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
            260                 265                 270

Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
        275                 280                 285

Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
    290                 295                 300

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
305                 310                 315                 320

Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
                325                 330                 335

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
            340                 345                 350

Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr
        355                 360                 365

Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
    370                 375                 380

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
385                 390                 395                 400

Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys
                405                 410                 415

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
            420                 425                 430

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
        435                 440                 445
```

<210> 61
<211> 216
<212> PRT
<213> Homo sapiens

<400> 61

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


Arg Val Thr Ile Ser Cys Thr Ser Ser Ser Ser Asp Ile Gly Ala Gly
            20                  25                  30


Leu Gly Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
        35                  40                  45


Leu Ile Glu Gly Tyr Tyr Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
    50                  55                  60


Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Thr Ile Thr Gly Leu
65                  70                  75                  80


Leu Pro Glu Asp Glu Gly Asp Tyr Tyr Cys Gln Ser Trp Asp Gly Thr
                85                  90                  95


Leu Ser Ala Leu Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln
            100                 105                 110


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


Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe Tyr
    130                 135                 140


Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val Lys
145                 150                 155                 160


Ala Gly Val Glu Thr Thr Thr Pro Ser Lys Gln Ser Asn Asn Lys Tyr
                165                 170                 175
```

```
Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
            180                 185                 190


Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
        195                 200                 205


Thr Val Ala Pro Thr Glu Cys Ser
    210                 215


<210>  62
<211>  329
<212>  PRT
<213>  Homo sapiens

<400>  62

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


Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30


Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45


Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60


Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65                  70                  75                  80


Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95


Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
            100                 105                 110


Pro Ala Pro Glu Ala Ala Gly Ala Pro Ser Val Phe Leu Phe Pro Pro
```

```
        115                 120                 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
    130                 135                 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205

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

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225                 230                 235                 240

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

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
            260                 265                 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320
```

Gln Lys Ser Leu Ser Leu Ser Pro Gly
325

<210> 63
<211> 330
<212> PRT
<213> Homo sapiens

<400> 63

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

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

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

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

```
Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205

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

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
225                 230                 235                 240

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

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
            260                 265                 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
                325                 330
```

<210> 64
<211> 329
<212> PRT
<213> Homo sapiens

<400> 64

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1               5                   10                  15


Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30


Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45


Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60


Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65                  70                  75                  80


Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95


Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
            100                 105                 110


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


Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val Thr Cys
    130                 135                 140


Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160


Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175


Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190
```

```
His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205

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

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225                 230                 235                 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
                245                 250                 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
            260                 265                 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly
                325
```

<210> 65
<211> 330
<212> PRT
<213> Homo sapiens

<400> 65

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
1               5                   10                  15

Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30
```

```
Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65                  70                  75                  80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
            100                 105                 110

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

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
    130                 135                 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205

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

```
Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225                 230                 235                 240


Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
                245                 250                 255


Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
            260                 265                 270


Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285


Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300


Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320


Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
                325                 330


<210>  66
<211>  329
<212>  PRT
<213>  Homo sapiens

<400>  66

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


Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30


Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45


Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60
```

```
Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65                  70                  75                  80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
            100                 105                 110

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

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
    130                 135                 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
                165                 170                 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
        195                 200                 205

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

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu
225                 230                 235                 240

Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
                245                 250                 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
```

```
            260                 265                 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
        275                 280                 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
    290                 295                 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305                 310                 315                 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly
                325
```

<210> 67
<211> 326
<212> PRT
<213> Homo sapiens

<400> 67

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1               5                   10                  15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr
65                  70                  75                  80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95
```

```
Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
        115                 120                 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
    130                 135                 140

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

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
                165                 170                 175

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

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
        195                 200                 205

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

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225                 230                 235                 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
                245                 250                 255

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

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
        275                 280                 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
    290                 295                 300
```

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305 310 315 320

Ser Leu Ser Pro Gly Lys
325

<210> 68
<211> 325
<212> PRT
<213> Homo sapiens

<400> 68

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

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
50 55 60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
100 105 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
115 120 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp

```
    130                 135                 140

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

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
                165                 170                 175

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

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
        195                 200                 205

Ser Ser Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
    210                 215                 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225                 230                 235                 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
                245                 250                 255

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

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
        275                 280                 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
    290                 295                 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305                 310                 315                 320

Ser Leu Ser Pro Gly
                325
```

<210> 69
<211> 326
<212> PRT
<213> Homo sapiens

<400> 69

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1               5                  10                  15


Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30


Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45


Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60


Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65                  70                  75                  80


Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95


Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110


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


Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val Thr Cys Val Val Val
    130                 135                 140


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


Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe
                165                 170                 175
```

```
Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
            180                 185                 190

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu
        195                 200                 205

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

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys
225                 230                 235                 240

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
                245                 250                 255

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
            260                 265                 270

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
        275                 280                 285

Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser
    290                 295                 300

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
305                 310                 315                 320

Leu Ser Leu Ser Leu Gly
                325
```

<210> 70
<211> 325
<212> PRT
<213> Homo sapiens

<400> 70

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
```

```
1               5                   10                  15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr
65                  70                  75                  80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
        115                 120                 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
    130                 135                 140

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

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
                165                 170                 175

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

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
        195                 200                 205
```

```
Ala Pro Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
    210                 215                 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225                 230                 235                 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
                245                 250                 255

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

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
        275                 280                 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
    290                 295                 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305                 310                 315                 320

Ser Leu Ser Pro Gly
                325
```

<210> 71
<211> 326
<212> PRT
<213> Homo sapiens

<400> 71

```
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1               5                   10                  15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
            20                  25                  30

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
        35                  40                  45
```

```
Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
    50                  55                  60

Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr
65                  70                  75                  80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
                85                  90                  95

Thr Val Glu Arg Lys Cys Cys Val Glu Cys Pro Pro Cys Pro Ala Pro
            100                 105                 110

Pro Val Ala Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp
        115                 120                 125

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp
    130                 135                 140

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

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
                165                 170                 175

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

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
        195                 200                 205

Ser Ser Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
    210                 215                 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225                 230                 235                 240
```

```
Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
                245                 250                 255

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

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
        275                 280                 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
    290                 295                 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305                 310                 315                 320

Ser Leu Ser Pro Gly Lys
                325
```