SEQUENCE LISTING

<110> Genentech, Inc.
F. Hoffmann-La Roche AG

<120> HUMANIZED AND AFFINITY MATURED ANTIBODIES TO FcRH5 AND METHODS OF USE

<130> 50474-134WO2

<150> US 62/180,459
<151> 2015-06-16

<160> 215

<170> PatentIn version 3.5

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His Tyr Tyr Gly Ser Xaa Asp Tyr Ala Leu Asp Asn
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Gln Gln Xaa Xaa Xaa Xaa Pro Tyr Thr
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Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met Ser
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His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn
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His Tyr Tyr Gly Ser Pro Asp Tyr Ala Leu Asp Asn
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Lys Ala Ser Gln Asp Val Arg Asn Leu Val Val
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Ser Gly Ser Tyr Arg Tyr Ser
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Ser Gly Tyr Asn Arg Tyr Ser
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Gly Ile Asp Leu Ser Ser Tyr Ala Met Gly
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Thr Ile Gly Thr Gly Gly Thr Pro Tyr Tyr Ala Ser Trp Ala Lys Gly
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Ala Arg Asp Met Tyr Thr Gly Ser Ile Tyr Tyr Asp Met
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Gln Ser Ser Gln Ser Val Phe Asn Asn Ala Gln Leu Ser
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Asp Thr Ser Asn Leu Ala Ser
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Leu Gly Ala Tyr Thr Asp Asp Ala Asp Asn Ala
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Gly Tyr Thr Phe Thr His Tyr Ala Met His
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Met Ile Ser Ser Ser Ser Gly Asn Thr Asn Phe Asn Gln Lys Phe Met
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Asp

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

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Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
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Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
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Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
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Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile

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        35                  40                  45

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

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

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60

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

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

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 87
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 87

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


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


Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Ser Gly Tyr Asn Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gln Phe Gln Pro Pro Tyr
                85                  90                  95


Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


<210>  88
<211>  120
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  88

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


Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30


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

```
Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
            100                 105                 110

Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 89
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 89

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Arg Asn Ile
            20                  25                  30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
```

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

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 90
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 90

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 91
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 91

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

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

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 92
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 92

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 93
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 93

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile

35 40 45

Tyr Ser Gly Tyr Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gln Phe Gln Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 94
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 94

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser

```
                85                  90                  95


Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
            100                 105                 110


Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  95
<211>  107
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  95

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


Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
            20                  25                  30


Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Ser Gly Tyr Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gln Tyr Gln Pro Pro Tyr
                85                  90                  95


Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


<210>  96
```

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

<220>
<223> Synthetic construct

<400> 96

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 97
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 97

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


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


Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Ser Gly Tyr Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Gln Pro Pro Tyr
                85                  90                  95


Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 98
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 98

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


Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30


Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Ile
        35                  40                  45
```

```
Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
            100                 105                 110

Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 99
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 99

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

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

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Gly Tyr Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80
```

```
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Gln Pro Pro Tyr
                85                  90                  95


Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105


<210>  100
<211>  120
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  100

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


Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30


Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45


Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60


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


Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95


Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
            100                 105                 110


Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 101
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 101

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

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

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

Tyr Ser Gly Tyr Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Gln Pro Pro Tyr
                85   90   95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 102
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 102

Glu Val Gln Leu Val Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu

1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 103
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 103

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile

35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 104
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 104

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser

85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 105
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 105

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

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

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 106

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

<220>
<223> Synthetic construct

<400> 106

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

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

<220>
<223> Synthetic construct

<400> 107

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


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


Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35                  40                  45


Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60


Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80


Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
                85                  90                  95


Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 108
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 108

```
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 Ile Asp Leu Ser Ser Tyr
            20                  25                  30


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

```
Gly Thr Ile Gly Thr Gly Gly Thr Pro Tyr Tyr Ala Ser Trp Ala Lys
    50                  55                  60

Gly Arg Phe Thr Ile Ser Lys Asp Ser Ser Lys Asn Thr Val Tyr Leu
65                  70                  75                  80

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

Arg Asp Met Tyr Thr Gly Ser Ile Tyr Tyr Asp Met Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ser
        115
```

<210> 109
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 109

```
Asp Ala 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 Gln Ser Ser Gln Ser Val Phe Asn Asn
            20                  25                  30

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

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

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu
65                  70                  75                  80
```

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


Asp Ala Asp Asn Ala Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110


<210>  110
<211>  118
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  110

Gln Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Arg Pro Gly Val
1               5                   10                  15


Ser Val Lys Ile Ser Cys Lys Gly Ser Gly Tyr Thr Phe Thr His Tyr
            20                  25                  30


Ala Met His Trp Val Lys Gln Ser His Thr Lys Ser Leu Glu Trp Ile
        35                  40                  45


Gly Met Ile Ser Ser Ser Ser Gly Asn Thr Asn Phe Asn Gln Lys Phe
    50                  55                  60


Met Asp Lys Ala Thr Met Thr Val Asp Lys Ser Ser Thr Thr Ala Tyr
65                  70                  75                  80


Leu Glu Leu Ala Arg Leu Thr Phe Gly Asp Ser Ala Ile Tyr Tyr Cys
                85                  90                  95


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


Thr Val Thr Val Ser Ser
        115
```

<210> 111
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 111

Glu Asn Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Lys Val Thr Met Thr Cys Ser Ala Asp Ser Ser Val Asp Tyr Ile
20 25 30

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

Asp Thr Ser Lys Leu Ala Ser Gly Val Pro Gly Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Asn Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Ala Glu
65 70 75 80

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

Phe Gly Ser Gly Thr Lys Leu Glu Leu Lys
100 105

<210> 112
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 112

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Val Lys Pro Gly Ala

1 5 10 15

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

Val Ile His Trp Met Lys Gln Lys Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

Gly Tyr Ile Ser Pro Tyr Asn Asp Tyr Thr Lys Tyr Asn Glu Lys Phe
50 55 60

Glu Gly Lys Ala Thr Leu Thr Ser Asp Lys Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

Ala Arg Arg Asp Tyr Tyr Gly Ser Ser Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Leu Thr Val Ser Ser
115

<210> 113
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 113

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

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

His Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Lys Trp Ile Tyr

```
        35                  40                  45

Asp Thr Ser Lys 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 Gly Ser Met Glu Ala Glu
65                  70                  75                  80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Asn Pro Pro Thr
                85                  90                  95

Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105
```

<210> 114
<211> 977
<212> PRT
<213> Homo sapiens

<400> 114

```
Met Leu Leu Trp Val Ile Leu Leu Val Leu Ala Pro Val Ser Gly Gln
1               5                   10                  15

Phe Ala Arg Thr Pro Arg Pro Ile Ile Phe Leu Gln Pro Pro Trp Thr
            20                  25                  30

Thr Val Phe Gln Gly Glu Arg Val Thr Leu Thr Cys Lys Gly Phe Arg
        35                  40                  45

Phe Tyr Ser Pro Gln Lys Thr Lys Trp Tyr His Arg Tyr Leu Gly Lys
    50                  55                  60

Glu Ile Leu Arg Glu Thr Pro Asp Asn Ile Leu Glu Val Gln Glu Ser
65                  70                  75                  80

Gly Glu Tyr Arg Cys Gln Ala Gln Gly Ser Pro Leu Ser Ser Pro Val
                85                  90                  95
```

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

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

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

Leu Asn Lys Arg Thr Asp Phe His Ile Pro His Ala Cys Leu Lys Asp
145                 150                 155                 160

Asn Gly Ala Tyr Arg Cys Thr Gly Tyr Lys Glu Ser Cys Cys Pro Val
                165                 170                 175

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

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

Leu Thr Cys Glu Thr Gln Leu Ser Leu Glu Arg Ser Asp Val Pro Leu
    210                 215                 220

Arg Phe Arg Phe Phe Arg Asp Asp Gln Thr Leu Gly Leu Gly Trp Ser
225                 230                 235                 240

Leu Ser Pro Asn Phe Gln Ile Thr Ala Met Trp Ser Lys Asp Ser Gly
                245                 250                 255

Phe Tyr Trp Cys Lys Ala Ala Thr Met Pro Tyr Ser Val Ile Ser Asp
            260                 265                 270

Ser Pro Arg Ser Trp Ile Gln Val Gln Ile Pro Ala Ser His Pro Val
        275                 280                 285

Leu Thr Leu Ser Pro Glu Lys Ala Leu Asn Phe Glu Gly Thr Lys Val
    290                 295                 300
```

```
Thr Leu His Cys Glu Thr Gln Glu Asp Ser Leu Arg Thr Leu Tyr Arg
305                 310                 315                 320

Phe Tyr His Glu Gly Val Pro Leu Arg His Lys Ser Val Arg Cys Glu
                325                 330                 335

Arg Gly Ala Ser Ile Ser Phe Ser Leu Thr Thr Glu Asn Ser Gly Asn
            340                 345                 350

Tyr Tyr Cys Thr Ala Asp Asn Gly Leu Gly Ala Lys Pro Ser Lys Ala
        355                 360                 365

Val Ser Leu Ser Val Thr Val Pro Val Ser His Pro Val Leu Asn Leu
    370                 375                 380

Ser Ser Pro Glu Asp Leu Ile Phe Glu Gly Ala Lys Val Thr Leu His
385                 390                 395                 400

Cys Glu Ala Gln Arg Gly Ser Leu Pro Ile Leu Tyr Gln Phe His His
                405                 410                 415

Glu Gly Ala Ala Leu Glu Arg Arg Ser Ala Asn Ser Ala Gly Gly Val
            420                 425                 430

Ala Ile Ser Phe Ser Leu Thr Ala Glu His Ser Gly Asn Tyr Tyr Cys
        435                 440                 445

Thr Ala Asp Asn Gly Phe Gly Pro Gln Arg Ser Lys Ala Val Ser Leu
    450                 455                 460

Ser Val Thr Val Pro Val Ser His Pro Val Leu Thr Leu Ser Ser Ala
465                 470                 475                 480

Glu Ala Leu Thr Phe Glu Gly Ala Thr Val Thr Leu His Cys Glu Val
                485                 490                 495
```

```
Gln Arg Gly Ser Pro Gln Ile Leu Tyr Gln Phe Tyr His Glu Asp Met
            500                 505                 510

Pro Leu Trp Ser Ser Ser Thr Pro Ser Val Gly Arg Val Ser Phe Ser
        515                 520                 525

Phe Ser Leu Thr Glu Gly His Ser Gly Asn Tyr Tyr Cys Thr Ala Asp
    530                 535                 540

Asn Gly Phe Gly Pro Gln Arg Ser Glu Val Val Ser Leu Phe Val Thr
545                 550                 555                 560

Val Pro Val Ser Arg Pro Ile Leu Thr Leu Arg Val Pro Arg Ala Gln
                565                 570                 575

Ala Val Val Gly Asp Leu Leu Glu Leu His Cys Glu Ala Pro Arg Gly
            580                 585                 590

Ser Pro Pro Ile Leu Tyr Trp Phe Tyr His Glu Asp Val Thr Leu Gly
        595                 600                 605

Ser Ser Ser Ala Pro Ser Gly Gly Glu Ala Ser Phe Asn Leu Ser Leu
    610                 615                 620

Thr Ala Glu His Ser Gly Asn Tyr Ser Cys Glu Ala Asn Asn Gly Leu
625                 630                 635                 640

Val Ala Gln His Ser Asp Thr Ile Ser Leu Ser Val Ile Val Pro Val
                645                 650                 655

Ser Arg Pro Ile Leu Thr Phe Arg Ala Pro Arg Ala Gln Ala Val Val
            660                 665                 670

Gly Asp Leu Leu Glu Leu His Cys Glu Ala Leu Arg Gly Ser Ser Pro
        675                 680                 685

Ile Leu Tyr Trp Phe Tyr His Glu Asp Val Thr Leu Gly Lys Ile Ser
    690                 695                 700
```

```
Ala Pro Ser Gly Gly Gly Ala Ser Phe Asn Leu Ser Leu Thr Thr Glu
705                 710                 715                 720


His Ser Gly Ile Tyr Ser Cys Glu Ala Asp Asn Gly Leu Glu Ala Gln
                725                 730                 735


Arg Ser Glu Met Val Thr Leu Lys Val Ala Val Pro Val Ser Arg Pro
            740                 745                 750


Val Leu Thr Leu Arg Ala Pro Gly Thr His Ala Ala Val Gly Asp Leu
        755                 760                 765


Leu Glu Leu His Cys Glu Ala Leu Arg Gly Ser Pro Leu Ile Leu Tyr
    770                 775                 780


Arg Phe Phe His Glu Asp Val Thr Leu Gly Asn Arg Ser Ser Pro Ser
785                 790                 795                 800


Gly Gly Ala Ser Leu Asn Leu Ser Leu Thr Ala Glu His Ser Gly Asn
                805                 810                 815


Tyr Ser Cys Glu Ala Asp Asn Gly Leu Gly Ala Gln Arg Ser Glu Thr
            820                 825                 830


Val Thr Leu Tyr Ile Thr Gly Leu Thr Ala Asn Arg Ser Gly Pro Phe
        835                 840                 845


Ala Thr Gly Val Ala Gly Gly Leu Leu Ser Ile Ala Gly Leu Ala Ala
    850                 855                 860


Gly Ala Leu Leu Leu Tyr Cys Trp Leu Ser Arg Lys Ala Gly Arg Lys
865                 870                 875                 880


Pro Ala Ser Asp Pro Ala Arg Ser Pro Ser Asp Ser Asp Ser Gln Glu
                885                 890                 895
```

```
Pro Thr Tyr His Asn Val Pro Ala Trp Glu Glu Leu Gln Pro Val Tyr
            900                 905                 910

Thr Asn Ala Asn Pro Arg Gly Glu Asn Val Val Tyr Ser Glu Val Arg
        915                 920                 925

Ile Ile Gln Glu Lys Lys Lys His Ala Val Ala Ser Asp Pro Arg His
    930                 935                 940

Leu Arg Asn Lys Gly Ser Pro Ile Ile Tyr Ser Glu Val Lys Val Ala
945                 950                 955                 960

Ser Thr Pro Val Ser Gly Ser Leu Phe Leu Ala Ser Ser Ala Pro His
                965                 970                 975

Arg
```

<210> 115
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 115

```
Ser Tyr Tyr Ile His
1               5
```

<210> 116
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 116

```
Trp Ile Tyr Pro Glu Asn Asp Asn Thr Lys Tyr Asn Glu Lys Phe Lys
1               5                   10                  15
```

Asp

<210> 117
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (6)..(6)
<223> Xaa is Tyr or Ala

<400> 117

Asp Gly Tyr Ser Arg Xaa Tyr Phe Asp Tyr
1 5 10

<210> 118
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 118

Lys Ser Ser Gln Ser Leu Leu Asn Ser Arg Thr Arg Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 119
<211> 7
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 119

Trp Thr Ser Thr Arg Lys Ser
1 5

<210> 120
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (1)..(1)
<223> Xaa is Lys or Thr

<400> 120

Xaa Gln Ser Phe Ile Leu Arg Thr
1 5

<210> 121
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 121

Asp Gly Tyr Ser Arg Tyr Tyr Phe Asp Tyr
1 5 10

<210> 122
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 122

Asp Gly Tyr Ser Arg Ala Tyr Phe Asp Tyr
1 5 10

<210> 123
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 123

Lys Gln Ser Phe Ile Leu Arg Thr
1 5

<210> 124
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 124

Thr Gln Ser Phe Ile Leu Arg Thr
1 5

<210> 125
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 125

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

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

<210> 126
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 126

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile Gly
1   5   10

<210> 127
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 127

Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr Leu Glu
1   5   10   15

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

<210> 128
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 128

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1   5   10

<210> 129
<211> 23

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 129

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

Glu Arg Ala Thr Ile Asn Cys
            20

<210> 130
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 130

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

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

<220>
<223> Synthetic construct

<400> 131

Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1   5   10   15

Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys
            20   25   30

<210> 132
<211> 10

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 132

Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1   5   10

<210> 133
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 133

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

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

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35   40   45

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

Lys Asp Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65   70   75   80

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

Ala Arg Asp Gly Tyr Ser Arg Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
            100   105   110

Thr Leu Val Thr Val Ser Ser
        115

<210> 134
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 134

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

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

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

Ser Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Lys Ser Gly Val
    50   55   60

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

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Lys Gln
                85   90   95

Ser Phe Ile Leu Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105   110

<210> 135
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 135

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


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


Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45


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


Lys Asp Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80


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


Ala Arg Asp Gly Tyr Ser Arg Ala Tyr Phe Asp Tyr Trp Gly Gln Gly
            100                 105                 110


Thr Leu Val Thr Val Ser Ser
        115
```

<210> 136
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 136

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


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

```
Arg Thr Arg Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
        35                  40                  45

Ser Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Lys Ser Gly Val
    50                  55                  60

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

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Lys Gln
                85                  90                  95

Ser Phe Ile Leu Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
```

<210> 137
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 137

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

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

Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45

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

Lys Asp Arg Val Thr Ile Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
```

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


Ala Arg Asp Gly Tyr Ser Arg Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
            100                 105                 110


Thr Leu Val Thr Val Ser Ser
        115


<210>  138
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  138

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


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


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


Ser Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Lys Ser Gly Val
    50                  55                  60


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


Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Thr Gln
                85                  90                  95


Ser Phe Ile Leu Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
```

<210> 139
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 139

Asn Tyr Tyr Ile His
1 5

<210> 140
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 140

Trp Ile Tyr Pro Gly Asp Gly Asn Thr Lys Tyr Asn Glu Lys Phe Lys
1 5 10 15

Gly

<210> 141
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 141

Asp Ser Tyr Ser Asn Tyr Tyr Phe Asp Tyr
1 5 10

<210> 142
<211> 17

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 142

Lys Ser Ser Gln Ser Leu Leu Asn Ser Arg Thr Arg Lys Asn Tyr Leu
1   5   10   15

Ala

<210> 143
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 143

Trp Ala Ser Thr Arg Glu Ser
1   5

<210> 144
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 144

Thr Gln Ser Phe Ile Leu Arg Thr
1   5

<210> 145
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 145

Glu 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
20 25 30

<210> 146
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 146

Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile Gly
1 5 10

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

<220>
<223> Synthetic construct

<400> 147

Arg Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr Leu Glu
1 5 10 15

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

<210> 148
<211> 11
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic construct

<400> 148

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1   5   10

<210> 149
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 149

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

Glu Arg Ala Thr Ile Asn Cys
            20

<210> 150
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 150

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

<210> 151
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 151

```
Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
1               5                   10                  15


Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys
            20                  25                  30
```

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

<220>
<223> Synthetic construct

<400> 152

```
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
1               5                   10
```

<210> 153
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 153

```
Glu 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 Asn Tyr
            20                  25                  30


Tyr Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45


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


Lys Gly Arg Ala Thr Leu Thr Ala Asp Thr Ser Thr Ser Thr Ala Tyr
65                  70                  75                  80
```

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


Ala Arg Asp Ser Tyr Ser Asn Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly
            100                 105                 110


Thr Leu Val Thr Val Ser Ser
        115


<210>  154
<211>  112
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  154

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


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


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


Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
    50                  55                  60


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


Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Thr Gln
                85                  90                  95


Ser Phe Ile Leu Arg Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105                 110
```

<210> 155
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 155

Gly Tyr Thr Met Asn
1   5

<210> 156
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<220>
<221> MISC_FEATURE
<222> (9)..(9)
<223> Xaa is Ser or Thr

<220>
<221> MISC_FEATURE
<222> (12)..(12)
<223> Xaa is Asn or Ala

<220>
<221> MISC_FEATURE
<222> (13)..(13)
<223> Xaa is Gln or Asp

<220>
<221> MISC_FEATURE
<222> (14)..(14)
<223> Xaa is Lys or Ser

<220>
<221> MISC_FEATURE
<222> (15)..(15)
<223> Xaa is Val or Phe

<220>
<221> MISC_FEATURE
<222> (17)..(17)
<223> Xaa is Gly or Asp

<400> 156

Leu Ile Asn Pro Tyr Lys Gly Val Xaa Thr Tyr Xaa Xaa Xaa Xaa Lys
1   5   10   15

Xaa

<210> 157
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 157

Ser Gly Tyr Tyr Gly Asp Ser Asp Trp Tyr Phe Asp Val
1   5   10

<210> 158
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 158

Arg Ala Ser Gln Asp Ile Arg Asn Tyr Leu Asn
1   5   10

<210> 159
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 159

Tyr Thr Ser Arg Leu Glu Ser
1 5

<210> 160
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 160

Gln Gln Gly Asn Thr Leu Pro Trp Thr
1 5

<210> 161
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 161

Leu Ile Asn Pro Tyr Lys Gly Val Thr Thr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 162
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 162

Leu Ile Asn Pro Tyr Lys Gly Val Ser Thr Tyr Asn Gln Lys Phe Lys

1 5 10 15

Asp

<210> 163
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 163

Leu Ile Asn Pro Tyr Lys Gly Val Ser Thr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 164
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 164

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ser Phe Thr
20 25 30

<210> 165
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 165

Trp Val Arg Gln Ala Pro Gly Lys Asp Leu Glu Trp Val Ala
1 5 10

<210> 166
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 166

Arg Phe Thr Ile Ser Val Asp Lys Ser Lys Asn Thr Ala Tyr Leu Gln
1 5 10 15

Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg
20 25 30

<210> 167
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 167

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
1 5 10

<210> 168
<211> 23
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 168

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

1 5 10 15

Asp Arg Val Thr Ile Thr Cys
20

<210> 169
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 169

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

<210> 170
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 170

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

Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys
20 25 30

<210> 171
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 171

Phe Gly Gln Gly Thr Lys Leu Glu Leu Lys

1 5 10

<210> 172
<211> 122
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 172

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Tyr Ser Phe Thr Gly Tyr
20 25 30

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

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

Lys Asp Arg Phe Thr Ile Ser Val Asp Lys Ser Lys Asn Thr Ala 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 Ser Gly Tyr Tyr Gly Asp Ser Asp Trp Tyr Phe Asp Val Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 173
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 173

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asp Ile Arg Asn Tyr
            20   25   30

Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
        35   40   45

Tyr Tyr Thr Ser Arg Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Gly Asn Thr Leu Pro Trp
                85   90   95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Leu Lys
            100   105

<210> 174
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 174

Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr Gln Thr Pro Tyr Lys
1   5   10   15

Val Ser Ile Ser Gly Thr Thr Val Ile Leu Thr Cys
            20   25

<210> 175
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 175

Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Pro Ala Phe Met Ser
1 5 10 15

<210> 176
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 176

Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Gly Ser
1 5 10 15

<210> 177
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 177

Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met Asp
1 5 10 15

<210> 178
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 178

Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met Pro
1 5 10 15

<210> 179
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 179

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr
20 25 30

<210> 180
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 180

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr
20 25 30

<210> 181
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 181

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Pro Leu Thr
20 25 30

<210> 182
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 182

Trp Tyr Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu Gly
1 5 10

<210> 183
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 183

Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu Met
1 5 10 15

Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser Asn
20 25 30

<210> 184
<211> 32
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 184

Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu Lys
1 5 10 15

Leu Ser Asp Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser Asn
20 25 30

<210> 185
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 185

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 186
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 186

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 187
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 187

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


Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30


Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45


Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60


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


Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95


Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
            100                 105                 110


Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  188
<211>  107
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  188

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


Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
            20                  25                  30
```

```
Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
                85                  90                  95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 189
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 189

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Pro Leu Thr Arg Phe
            20                  25                  30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65                  70                  75                  80
```

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 190
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 190

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 191
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 191

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


Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr Arg Phe
            20                  25                  30


Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45


Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60


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


Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95


Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
            100                 105                 110


Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 192
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 192

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 193
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 193

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Tyr Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu

35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 194
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 194

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 195
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 195

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Pro Ala Phe Met
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 196
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 196

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 197
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 197

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


Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30


Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45


Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Gly
    50                  55                  60


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


Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95


Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
            100                 105                 110


Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  198
<211>  107
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  198

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


Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
            20                  25                  30
```

```
Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
                85                  90                  95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 199
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 199

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60

Asp Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65                  70                  75                  80
```

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 200
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 200

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 201
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 201

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


Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30


Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45


Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60


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


Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95


Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
            100                 105                 110


Gly Thr Leu Val Thr Val Ser Ser
        115                 120
```

<210> 202
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 202

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
            20   25   30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
        35   40   45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
                85   90   95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

<210> 203
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 203

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20   25   30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu

35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

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

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 204
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 204

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 205
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 205

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
50 55 60

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

Lys Leu Ser Asp Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser

115 120

<210> 206
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 206

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
20 25 30

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 207
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 207

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


Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30


Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45


Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Met
    50                  55                  60


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


Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95


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


Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  208
<211>  107
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  208

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


Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Ser Asn Ile
            20                  25                  30
```

```
Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Ala Ser Tyr Arg Tyr Thr Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Ser Pro Tyr
                85                  90                  95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100                 105
```

<210> 209
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic construct

<400> 209

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20                  25                  30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
        35                  40                  45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
    50                  55                  60

Ser Arg Leu Thr Ile Ser Lys Asp Asn Ser Lys Asn Gln Val Ser Leu
65                  70                  75                  80
```

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

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

<220>
<223> Synthetic construct

<400> 210

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

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

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

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

<220>
<223> Synthetic construct

<400> 211

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Thr Thr Arg Phe
20 25 30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
35 40 45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
85 90 95

Asn His Tyr Tyr Gly Ser Ser Asp Tyr Ala Leu Asp Asn Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

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

<220>
<223> Synthetic construct

<400> 212

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

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

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
        35   40   45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
    50   55   60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65   70   75   80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
                85   90   95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
            100   105

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

<220>
<223> Synthetic construct

<400> 213

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Ser Leu Thr Arg Phe
            20   25   30

Gly Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu

```
        35                  40                  45

Gly Val Ile Trp Arg Gly Gly Ser Thr Asp Tyr Asn Ala Ala Phe Val
    50                  55                  60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ser
                85                  90                  95

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

Gly Thr Leu Val Thr Val Ser Ser
        115                 120


<210>  214
<211>  107
<212>  PRT
<213>  Artificial Sequence

<220>
<223>  Synthetic construct

<400>  214

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

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

Val Val Trp Phe Gln Gln Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
        35                  40                  45

Tyr Ser Gly Ser Tyr Arg Tyr Ser Gly Val Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
```

65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ser Pro Pro Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105

<210> 215
<211> 975
<212> PRT
<213> Macaca fascicularis

<400> 215

Met Leu Leu Trp Val Ile Leu Leu Val Leu Ala Pro Val Ser Gly Gln
1 5 10 15

Phe Val Arg Thr Tyr Lys Ser His Phe Leu Gln Pro Pro Trp Thr Thr
20 25 30

Val Phe Arg Gly Glu Arg Val Asn Leu Thr Cys Lys Gly Phe Gly Phe
35 40 45

Tyr Ser Ser Gln Lys Thr Lys Trp Tyr Tyr Arg His Leu Gly Lys Glu
50 55 60

Ile Ser Arg Glu Thr Gln Lys Asn Thr Leu Glu Val Gln Glu Ser Gly
65 70 75 80

Glu Tyr Arg Cys Gln Ala Gln Gly Ser Pro Leu Ser Ser Pro Val Ser
85 90 95

Leu Asp Phe Ser Ser Ala Ser Leu Ile Leu Gln Ala Pro Leu Ser Val
100 105 110

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

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Thr Leu Lys Thr Thr Ile Tyr Lys Asn Glu Asn Val Leu Ala Phe Leu
    130                 135                 140

Asn Lys Ser Thr Asp Phe His Ile Ser His Ala Ser Leu Lys Asp Asn
145                 150                 155                 160

Gly Ala Tyr Arg Cys Thr Gly Tyr Lys Glu Thr Cys Cys Leu Val Ser
                165                 170                 175

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

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

Thr Cys Glu Thr Gln Leu Ser Leu Glu Arg Ser Asp Val Pro Leu Gln
    210                 215                 220

Phe Cys Phe Phe Arg Asn Asp Gln Met Leu Gly Ser Gly Cys Ser Leu
225                 230                 235                 240

Ser Pro Lys Phe Arg Ile Thr Ala Met Trp Ser Lys Asp Ser Gly Ser
                245                 250                 255

Tyr Trp Cys Lys Ala Ala Thr Met Cys Tyr Asp Thr Thr Ser Asn Ser
            260                 265                 270

Leu Arg Ser Trp Ile Gln Val Leu Ile Pro Ala Ser His Pro Val Leu
        275                 280                 285

Thr Leu Ser Pro Glu Lys Ala Leu Asn Phe Glu Gly Thr Lys Val Lys
    290                 295                 300

Leu His Cys Glu Thr Gln Glu Asp Ser Leu Arg Thr Leu Tyr Lys Phe
305                 310                 315                 320

Tyr His Asp Gly Val Pro Leu Arg Tyr Lys Ser Val Arg Cys Glu Lys
                325                 330                 335
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Gly Ala Ser Ile Ser Phe Ser Leu Thr Thr Glu His Ser Gly Asn Tyr
            340                 345                 350

Tyr Cys Thr Ala Asp Asn Gly His Gly Ala Lys Pro Ser Glu Ala Val
        355                 360                 365

Ser Leu Ser Val Thr Val Pro Val Ser Arg Pro Val Leu Thr Leu Ser
    370                 375                 380

Ser Ala Glu Asp Leu Ile Ser Glu Gly Ala Lys Leu Thr Leu His Cys
385                 390                 395                 400

Glu Ala Gln Arg Gly Ser Leu Pro Ile Val Tyr Gln Phe His His Glu
                405                 410                 415

Asn Ala Ser Leu Gly Asn Arg Ser Ala His Ser Ala Gly Gly Val Ala
            420                 425                 430

Ile Ser Phe Ser Leu Thr Ala Asp His Ser Gly Asn Tyr Tyr Cys Thr
        435                 440                 445

Ala Asn Asn Gly Phe Gly Pro Gln Arg Ser Glu Ala Val Ser Leu Ser
    450                 455                 460

Ile Thr Val Pro Val Ser Arg Pro Val Leu Thr Leu Ser Ser Ala Glu
465                 470                 475                 480

Ala Leu Thr Phe Glu Gly Ala Thr Val Thr Leu Tyr Cys Glu Val Gln
                485                 490                 495

Arg Gly Ser Pro Arg Ile Leu Tyr Gln Phe Tyr His Glu Asp Val Pro
            500                 505                 510

Leu Gly Ser Asn Ser Thr Pro Ser Val Gly Lys Val Ser Phe Ser Phe
        515                 520                 525
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Ser Leu Thr Ala Ala His Ser Gly Asn Tyr Tyr Cys Thr Ala Asp Asn
    530                 535                 540

Gly Phe Gly Pro Gln Arg Ser Glu Ala Val Ser Leu Phe Val Thr Val
545                 550                 555                 560

Pro Val Ser Arg Pro Ile Leu Thr Leu Arg Val Pro Arg Ala Gln Ala
                565                 570                 575

Val Val Gly Asp Leu Leu Glu Leu Arg Cys Glu Ala Leu Arg Gly Ser
            580                 585                 590

Pro Pro Ile Met Tyr Trp Phe Tyr His Glu Asp Val Thr Leu Gly Ser
        595                 600                 605

Ser Ser Val Pro Ser Gly Gly Glu Ala Ser Phe Asn Leu Ser Leu Thr
    610                 615                 620

Ala Glu His Ser Gly Asn Tyr Ser Cys Glu Ala Asn Asn Gly Leu Val
625                 630                 635                 640

Ala Gln His Ser Asp Thr Ile Ser Leu Ser Val Ile Val Pro Val Ser
                645                 650                 655

Arg Pro Ile Leu Thr Phe Arg Ala Pro Arg Ala Gln Ala Val Val Gly
            660                 665                 670

Asp Leu Leu Glu Leu His Cys Glu Ala Leu Arg Gly Ser Ser Pro Ile
        675                 680                 685

Leu Tyr Trp Phe Tyr His Glu Asp Val Thr Leu Gly Lys Ile Ser Ala
    690                 695                 700

Pro Ser Gly Gly Gly Ala Tyr Phe Asn Leu Ser Leu Thr Thr Glu His
705                 710                 715                 720

Ser Gly Ile Tyr Ser Cys Glu Ala Asp Asn Gly Leu Glu Ala Gln Arg
                725                 730                 735
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Ser Glu Met Val Thr Leu Lys Val Ala Val Pro Val Ser Arg Pro Val
            740                 745                 750

Leu Thr Leu Arg Ala Pro Arg Ala Gln Val Ala Val Gly Asp Leu Leu
        755                 760                 765

Glu Leu His Cys Glu Ala Leu Arg Gly Ser Pro Leu Ile Leu Tyr Gln
    770                 775                 780

Phe Tyr His Glu Asp Val Thr Leu Gly Asn Ser Ser Ala Leu Ser Gly
785                 790                 795                 800

Gly Ala Phe Phe Asn Leu Ser Leu Thr Ala Glu His Gly Asn Tyr Ser
                805                 810                 815

Cys Glu Ala Asp Asn Gly Leu Gly Ala Gln Arg Ser Glu Thr Val Thr
            820                 825                 830

Leu Tyr Leu Thr Gly Leu Thr Glu Asn Arg Ser Gly Pro Val Ala Thr
        835                 840                 845

Gly Val Thr Gly Gly Leu Leu Ser Leu Ala Gly Leu Ala Ala Val Ala
    850                 855                 860

Leu Leu Leu Tyr Cys Trp Leu Ser Arg Lys Ala Gly Arg Glu Pro Ala
865                 870                 875                 880

Ser Asp Pro Cys Arg Ser Pro Ser Asp Leu Asp Ser Gln Glu Pro Thr
                885                 890                 895

Tyr His Asn Val Pro Ala Trp Glu Glu Leu Gln Pro Val Tyr Ser Asn
            900                 905                 910

Val Asn Pro Arg Gly Glu Asn Val Val Tyr Ser Glu Val Arg Ile Ile
        915                 920                 925
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Arg Glu Lys Lys Lys His Ala Val Ala Ser Asn Pro Arg His Leu Arg
    930                 935                 940

Asn Lys Gly Ser Cys Ile Ile Tyr Ser Glu Val Lys Val Ala Ser Thr
945                 950                 955                 960

Pro Ala Ser Arg Cys Leu Phe Leu Ala Ser Ser Ala Pro His Arg
                965                 970                 975
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